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OF THE

UNITED STATES PATENT OFFICE

VOLUME 298

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[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*) and of the United States Circuit Court of Appeals by the letter ([a]).]

ERRATA.

1,414,713, page 82, in heading, strike out assignment and insert *assignors, by mesne assignments, to Display Doughnut Machine Corporation, a Corporation of New York.*

1,414,718, page 83, in heading, assignment, name of assignee, for "Charles S. Akley" read *Charles S. Ackley.*

1,415,102, page 206, in heading, assignment, name of assignee, for "Tow Motor Company" read *Toro Motor Company.*

1,417,337, page 784, in heading, assignment, name of assignee, for "Baxflat Barrel and Crate Corporation" read *Paxflat Barrel and Crate Corporation.*

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THE

OFFICIAL GAZETTE

OF THE

United States Patent Office.

Vol. 298—No. 1. TUESDAY, MAY 2, 1922. Price—$5 per year.

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, $5.00 per annum; single numbers, 10 cents each.

Printed copies of patents are furnished by the Patent Office at 10 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

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Issue of May 2, 1922.

Patents	774—No.	1,414,333 to No.	1,415,006, inclusive.
Designs	8 No.	60,924 to No.	60,931, inclusive.
Trade-Marks	11 No.	154,764 to No.	154,774, inclusive.
Labels	38 No.	24,292 to No.	24,329, inclusive.
Prints	12—No.	6,084 to No.	6,095, inclusive.
Reissues	2—No.	15,346 to No.	15,347, inclusive.
Total	745		

Renewal of Forfeited Cases.

A petition for the renewal of a forfeited application need not be signed by the inventor or assignee, but may be signed by the attorney.

A power of attorney in the original application authorizing an attorney to transact all business in the Patent Office in connection with the application construed to be of sufficient scope to include the signing of a petition for renewal and the subsequent prosecution of the application. (*Ex parte Agee*, 101 O. G., 1609.)

The Official Gazette.

The Official Gazette is published every Tuesday simultaneously with the weekly issue of patents. From January 1, 1872, (the commencement of its publication) to June 30, 1883, it was published and bound in semi-annual volumes; from July 1, 1883, to December 31, 1902, in quarterly volumes; from January 1, 1903, to December 31, 1908, in bimonthly volumes; since January 1, 1909, in monthly volumes. Terms: Annual subscriptions, $5; monthly, 50 cents. For postage upon foreign subscriptions, except those from Canada and Mexico, $5 or more, as required. Moneys received from foreign subscribers in excess of the subscription price of $5 will be deposited to the credit of the subscriber and applied to postage upon the subscription as incurred. Single copies, 10 cents; if mailed to foreign countries, excepting Canada and Mexico, 10 cents additional for postage. *Payment in advance required. No club rates. No discount to newsdealers. No sample copies.* All subscriptions must commence with the beginning of a volume. None taken for less than an entire volume. All orders should be addressed to "The Superintendent of Documents, Government Printing Office, Washington, D. C."

Important Information.

In ordering manuscript copies much time will be saved if the order states specifically what is desired, viz:

Application as originally filed. (Petition, specification oath, and drawings as received.) Application as amended. (Petition, specification, oath, and drawings with amendments entered.)

Application as allowed. (Petition, specification, oath, and drawings as passed by the Examiner for issue.)

Original application. (Facsimile petition, specification, oath, and drawings at present time.)

Specification as originally filed. (As received in Office.)

Specification as amended. (With amendments entered.)

Specification as allowed. (As passed by the Examiner for issue.)

Original specification. (Facsimile at present time.)

File-wrapper. (File-wrapper only.)

File-wrapper and contents. (File-wrapper, contents of record, including photoprints of any tracings or of prints within file-wrapper. In patented cases, printed copy of the specification and drawings of the patent is furnished.)

File-wrapper, contents, and drawings. (File-wrapper and all of the contents of record, including photoprints of any tracings, exhibits, or prints within the file-wrapper. In pending cases, photoprints of the pending drawings only, omitting any canceled. If patented, copy of the specification and drawings of the patent being furnished, photoprints are not made of the original drawings unless specially ordered. If canceled drawings are wanted, they must also be specially ordered.)

Assignment. (Give the liber and page of the record as well as the name of the inventor.)

Printed publications in possession of the Office. (Give title and date of publication, also page and exact portion to be copied.)

Orders for copies of any other records not mentioned above must state specifically the exact paper to be copied.

NOTICE.—CHANGES IN PATENT OFFICE FEES—EFFECTIVE APRIL 19, 1922.

The act of Congress approved February 18, 1922, amends section 4934, Revised Statutes, so as to provide a fee on filing each original application for a patent, except in design cases, of $20 instead of the present fee of $15.

The act also provides, in addition to the present fees for recording assignments or other papers, that there shall be paid for each additional patent or application included or involved in one writing, where more than one is so included or involved, 25 cents additional.

These new fees are effective on and after April 19, 1922.

Applications for patent, except in design cases, received on or after April 19, 1922, with only $15 filing fee will not be entered, but will be given a filing date and serial number as of the day the full fee of $20 is received by the Office.

Condition of Applications Under Examination at Close of Business April 22, 1922.

(Total number of applications waiting action, excluding Trade-Mark division, 65,203; Trade-Mark division, 8,629. Oldest new case, Feb. 26; oldest amended, Mar. 23, 1921. The dates given are 1921 except where * indicates 1922.)

Room No.	Divisions, Examiners, and subjects of inventions.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended	
314	1. LOEFFLER, F. A., Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Planting; Scattering Unloaders.	Oct. 24	Nov. 2	834
128	2. BALDWIN, M., Bee Culture; Dairy; Medicines; Pneumatics; Preserving; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco; Trees, Plants, and Flowers.	May 23	July 5	1,817
175	3. RICH, WM. J., Electric Heating and Rheostats; Electrochemistry; Heating; Metal Founding; Metallurgical Apparatus; Metallurgy; Metal Treatment; Plastic Metal Working.	Aug. 29	May 13	840
234	4. MERRITT, A. D., Conveyers; Conveyers, Fluid Current; Conveyers, Power Driven; Excavating; Handling—Hand and Hoist-Line Implements; Hoisting; Material or Article Handling; Pushing and Pulling Implements; Railway Mail Delivery; Traversing Hoists.	July 1	Dec. 12	1,512
167	5. MACNAB, J. F., Bookmaking; Books, Strips, and Leaves; Harvesters; Jewelry; Manifolding; Music; Printed Matter; Tying Cords or Strands.	June 30	July 9	1,045
318	6. LEWERS, A. M., Bleaching and Dyeing; Chemicals; Explosive, Pyrotechnic, and Match Compositions; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Substance Preparation.	July 28	Dec. 22	1,317
312	7. JARBOE, C. G., Games and Toys; Optics; Photography; Velocipedes	July 26	Oct. 18	2,357
133	8. CLIFT, J. W., Beds; Chairs and Seats; Flexible-Sheet-Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	*Jan. 27	*Mar. 13	709
221	9. TRYON, F. M., Air and Gas Pumps; Hydraulic Motors; Injectors and Ejectors; Motors, Fluid; Motors, Fluid Current; Pumps.	Mar. 9	*Jan. 6	1,057
235	10. MITCHELL, T. H., Land Vehicles; Land Vehicles, Animal Draft Appliances; Land Vehicles—Bodies and Tops; Land Vehicles—Dumping; Land Vehicles, Wheel Substitutes; Motor Vehicles.	Sept. 9	*Feb. 13	1,120
154	11. ARMSTRONG, H. C., Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Dec. 1	Dec. 22	529
322	12. PIERCE, P. P., Machine Elements	Oct. 1	Dec. 17	1,101
329	13. NIXON, G. A., Bolt, Nail, Nut, Rivet, and Screw Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Turning.	Apr. 20	Dec. 21	1,914
323	14. BRUMBAUGH, N. J., Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire Working.	July 1	*Feb. 27	869
308	15. REDROW, W. L., Bread, Pastry, and Confection Making; Glass; Laminated Fabrics and Analogous Manufactures; Paper Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	May 9	June 22	1,965
112	16. BACKUS, C. D., Radiant Energy; Telegraphy; Telephony	Apr. 25	May 7	2,000
307	17. RAFTER, G. S., Coating, Label Pasting, and Paper Hanging; Nut and Bolt Locks; Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet-Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	Aug. 1	Nov. 7	1,339
229	18. PORTER, M. E., Liquid Heaters and Vaporizers; Motors, Expansible-Chamber Type; Power Plants; Speed-Responsive Devices; Steam and Vacuum Pumps.	Feb. 26	Apr. 22	2,249
236	19. GLASCOCK, E. S., Automatic Temperature and Humidity Regulation; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels; Rheostats and Humidostats.	May 9	Aug. 9	1,209
179	20. WRIGHT, H., Artificial Body Members; Miscellaneous Hardware; Closure Fasteners; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Nov. 1	Oct. 26	1,813
212	21. THURBER, W. L., Continuous-Strip Feeding; Textiles; Textiles, Braiding, Netting, or Lace Making; Textiles, Cloth Finishing; Textiles, Fiber Preparation; Textiles, Knitting; Textiles, Spinning; Textiles, Twisting or Twining; Textiles, Weaving; Winding and Reeling.	June 1	Sept. 19	945
249	22. COLWELL, J. H., Aeronautics, Firearms; Ordnance; Ammunition and Explosive Devices; Ammunition and Explosive-Charge Making.	Sept. 2	Dec. 20	501
217	23. GROESBECK, W. D., Acoustics; Coin Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	Mar. 28	Sept. 19	794
144	24. DURAS, C. O., Apparel; Apparel Apparatus; Garment Supporters; Sewing Machines	July 2	Nov. 28	1,169
315	25. LIGHTFOOT, J. H., Agitating; Butchering; Centrifugal-Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	*Jan. 19	*Feb. 17	401
105	26. HODGES, J. S., Electricity, Generation; Motive Power; Prime-Mover Dynamo Plants	Aug. 17	Sept. 23	945
214	27. ANDERSON, L. S., Abrading; Brush, Broom, and Mop Making; Brushing, Scrubbing, and General Cleaning; Laundry; Washing Apparatus.	Aug. 2	Sept. 12	1,856
225	28. BENSON, A. R., Internal-Combustion Engines	Aug. 8	July 14	1,743
147	29. MORRIS, B. N., Boring and Drilling; Button Making; Chucks or Sockets; Coopering; Tool-Handle Fastenings; Wheelwright Machines; Wood Sawing; Wood Turning; Woodworking; Woodworking Tools.	July 5	*Feb. 15	643
152	30. SULLIVAN, M. R., Illuminating Burners; Illumination; Liquid and Gaseous Fuel Burners; Typewriting Machines.	Oct. 7	*Feb. 3	1,403
172	31. HOLMES, W. N., Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Fuel and Igniting Devices; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	May 3	July 2	2,167
278	32. BANCROFT, J. F., Gas and Liquid Contact Apparatus; Heat Exchange	June 4	Dec. 24	1,072
70	33. COWLES, W. A., Bridges; Hydraulic and Earth Engineering; Masonry and Concrete Structures; Metallic Building Structures; Roads and Pavements; Roofs.	Aug. 23	Nov. 12	959
304	34. SIMPSON, G. R., Electricity-Transmission to Vehicles; Pneumatic Dispatch; Railways; Railway Rolling Stock; Railway Switches and Signals; Railways, Surface Track; Railway Wheels and Axles; Store Service; Track Sanders; Vehicle Fenders.	*Jan. 25	*Feb. 16	413
52	35. REYNOLDS, E. C., Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals and Indicators; Toilet.	Nov. 8	*Jan. 13	892
204	36. MORTON, G. L., Automatic Weighers; Driers; Geometrical Instruments; Measuring Instruments; Force Measuring.	Oct. 27	Oct. 15	1,750
107	37. TAYLOR, E. C., Electricity, Circuit Makers and Breakers	June 8	June 13	1,942
378	38. IDE, G. R., Animal Husbandry; Earth Boring; Fishing, Trapping, and Vermin Destroying; Mining, Quarrying, and Ice Harvesting; Stationery; Stoneworking; Wells.	Sept. 21	Sept. 21	1,588
220	39. COWLES, A. W., Fluid-Pressure Regulators; Joint Packings; Multiple Valves; Packed Shaft or Rod Joints; Pipe Joints or Couplings; Rod Joints or Couplings; Valved Pipe Joints or Couplings; Valves; Water Distribution.	Mar. 14	May. 3	2,257
273	40. OBERLIN, J. J., Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Receptacles; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Apr. 25	July 5	2,891
125	41. BROWN, J. I., Land Vehicles, Wheels and Axles; Resilient Tires and Wheels	Nov. 19	Nov. 8	732
114	42. CUTTING, H. O., Electrical Conduits and Housings; Electric Signaling; Electric Lamps	June 6	May 24	1,871
382	43. HOPKINS, F. M., Baths and Closets; Dispensing; Dispensing Beverages; Electricity, Medical and Surgical; Fire Extinguishers; Sewerage; Surgery; Liquid Separation or Purification.	May 23	July 11	1,887
253	44. SHAFFER, C. H., Air Guns, Catapults, and Targets; Boats and Buoys; Filling and Closing Portable Receptacles; Marine Propulsion; Railway Draft Appliances; Refrigeration; Ships.	July 22	*Mar. 21	491
379	45. GILES, A. H., Journal Boxes, Pulleys, and Shafting; Lubrication; Motors; Spring Devices	Sept. 22	*Jan. 7	1,219
332	46. WOLCOTT, C. L., Curtains, Shades, and Screens; Educational Appliances; Fire Escapes; Ladders; Fluid Sprinkling, Spraying, and Diffusing; Paper Files and Binders; Wooden Buildings; Scaffolds.	Aug. 26	Oct. 31	1,295
264	47. BARKER, H., Brakes; Clutches and Power Stop Control; Elevators; Fluid-Pressure Brake and Analogous Systems.	June 13	Oct. 10	1,313
118	48. ROEPKE, O. B., Electricity Conductors; Electricity, General Applications	Feb. 26	Mar. 23	2,417
163	TRADE-MARKS, DESIGNS, LABELS AND PRINTS: T. L. MEAD, JR.			
	Trade-Marks	Sept. 12	Nov. 15	5,833
	Designs	Sept. 3	Nov. 15	2,583
	Labels and Prints	Apr. 8	Mar. 28	213

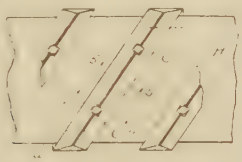
PATENTS

GRANTED MAY 2, 1922

1,414,333. PROCESS FOR THE PREPARATION OF THE DI-ALKYL-AMINO-ETHYL DERIVATIVES OF THEOBROMINE. JEAN ALTWEGG, Lyon, France, assignor to Societe Chimique des Usines du Rhone, (Anciennement Gilliard, P. Monnet et Cartier,) Paris, France. Filed June 29, 1920. Serial No. 392,655. 2 Claims. (Cl. 23—24.)

2. A new derivative of theobromine, di-ethylamino-ethyl theobromine, melting at 67° C., fairly soluble in water, forming aqueous solutions having a strongly alkaline reaction, soluble in most organic solvents, less soluble in ether and petroleum ether.

1,414,334. LUG FOR TREAD SURFACES. NAHUM C. BEMENT, Rockford, Ill. Filed Nov. 15, 1920. Serial No. 424,045. 4 Claims. (Cl. 301—44.)

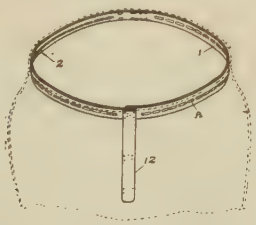


4. Lugs forming tread surfaces of wheel rims, each comprising an angular hollow body member attached directly to the wheel rim, reinforced portions near each end of the lug, a flange at each end of the lug extending at an angle to the longitudinal center thereof, the flanges extending parallel with the edge of said wheel rim, and means extending through the reinforced portions of each lug and the wheel rim for detachably and independently securing each lug to the wheel rim.

1,414,335. PROCESS FOR OBTAINING HALOGEN DERIVATIVES OF INDIGO AND OF ITS HOMOLOGUES. MAURICE BOUVIER, Lyon, France, assignor to Societe Chimique des Usines du Rhone, (Anciennement Gilliard, P. Monnet et Cartier,) Paris, France. Filed Oct. 1, 1918. Serial No. 256,400. 5 Claims. (Cl. 23—24.)

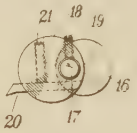
3. The process of manufacturing halogenated derivatives of indigo and its homologues which consists in mixing together a solution of sulphuric chlorhydrin, phosphoric pentoxide and bromine, stirring the mixture, and adding thereto a derivative of ortho-tolylindigo.

1,414,336. GARMENT SUPPORT. WILLIAM HENRY BRASHER, Toronto, Ontario, Canada. Filed Jan. 21, 1921. Serial No. 438,936. 3 Claims. (Cl. 2—142.)



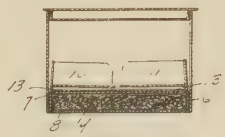
1. A garment support comprising a pair of sections of yieldable material secured together in longitudinally overlapping position and adjustable longitudinally in relation to each other, and straps secured to the free ends respectively of said sections and projecting therefrom at right angles, one of said straps being provided with projections constituting hooks and the other of said straps being provided with loops to receive said projections for securing said straps together in superposed position.

1,414,337. DEVICE FOR BORING CONNECTING RODS. WILLIAM J. BROWN, New York, N. Y. Filed June 2, 1920. Serial No. 386,003. 4 Claims. (Cl. 77—3.)



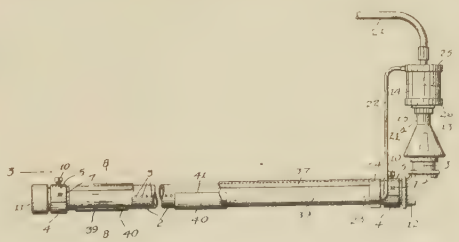
1. In a bearing boring device for connecting rods having a threaded tool spindle, tool spindle feeding means engaging the spindle threads, spring means for keeping said feeding means in engagement with the spindle and facilitating said feeding means to be lifted by the threads of and to disengage the spindle when the latter meets resistance.

1,414,338. COMBINED HUMIDIFIER AND PALETTE ATTACHMENT. EDWARD BRUCK, Spokane, Wash. Filed Apr. 12, 1921. Serial No. 460,860. 2 Claims. (Cl. 41—4.)



1. The combination in a box as described having a close-fitting lid and a hollow, false bottom, removable, and containing absorbent material, of trays having paint stalls as described, and clips on the underside of said trays resting on the false bottom for elevating the trays to permit circulation of humid air.

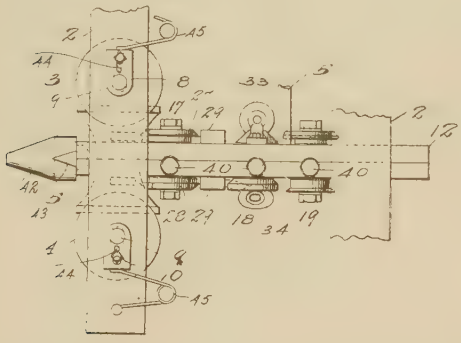
1,414,339. PRINTING PRESS. CHARLES H. COCHRANE, New York, N. Y. Filed Nov. 25, 1918. Serial No. 263,960. 21 Claims. (Cl. 34—18.)



4. In a printing press, means for heating some part of the press, means for supplying fuel to the heating means,

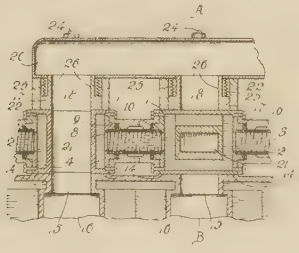
and fuel controlling means, operable by the vibratory movement of the press to permit the feed of fuel when the press is operating at normal speed and operable by the force of gravity to arrest the supply of fuel when the speed of operation of the press is appreciably diminished or the press stopped.

1,414,340. BENDING MACHINE. FREDERICK C. CROWE, Yakima, Wash., assignor to Variety Manufacturing Company, Yakima, Wash. Filed Apr. 12, 1921. Serial No. 460,688. 5 Claims. (Cl. 153—28.)



2. The combination with a longitudinally disposed central housing of guide rollers and progressive bending rollers supported therein and operating means for said rollers within the housing, each set of rollers comprising a pair of rollers at each side of the housing arranged in inverted relation whereby oppositely extending flanges are formed along the proximate edges of a sheet of metal, for the purpose described.

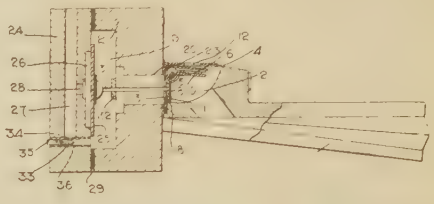
1,414,341. VALVE FOR INTERNAL-COMBUSTION AND OTHER ENGINES. PETER FRANCIS DANIEL, Christchurch, New Zealand. Filed Nov. 18, 1919. Serial No. 338,787. 1 Claim. (Cl. 123—59.)



In a rotary valve the combination of a series of port-faces, a ported rotor adapted to co-act therewith and consisting of a series of sections conjoined end-to-end by flexible connections adapted to permit the flow of a circulation of water therethrough and through hollow cores in said rotor sections, and means for transmitting the necessary drives to said sections and for relieving said flexible connections of torsional strain.

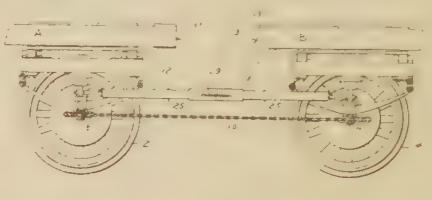
1,414,342. PIANO-PLAYER ACTION. EDGAR HENRY DODDS, Stroud Green, England. Filed Sept. 3, 1920. Serial No. 408,011. 6 Claims. (Cl. 84—50.)

1. In a pneumatic piano player action, a pneumatic, a valve chamber at one end of the pneumatic, an L shaped plate to close the upper and rear faces of this chamber, packing strips around the edges of the valve chamber over which the L shaped plate is secured, recesses in the sides of the valve chamber, a hinged valve plate, a pin located in the angle of the valve plate and projecting into



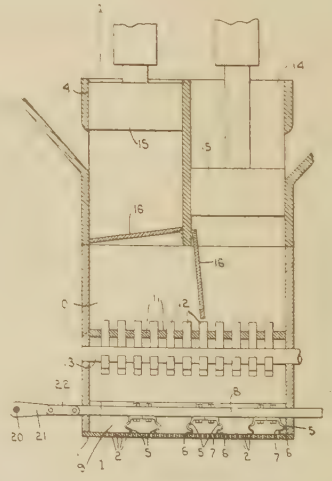
the recesses in the sides of the valve chamber, in which it is secured by the L shaped cover plate.

1,414,343. REACH. LORING B. DOE, San Francisco, Calif. Filed Sept. 22, 1920. Serial No. 412,083. 5 Claims. (Cl. 280—33.2.)



1. A reach for connecting two vehicles composed of a flexible draft means, and a rigid separator means, the latter comprising two members adapted to overlap each other at their meeting ends for a portion of their length, sleeves slidable on said members and adapted to ensleeve said overlapping portions, and means for securing said sleeves together to stabilize the device.

1,414,344. PEAT PRODUCT. FRED T. DOW, Bangor, Me. Filed Nov. 15, 1919. Serial No. 338,344. 4 Claims. (Cl. 44—27.)

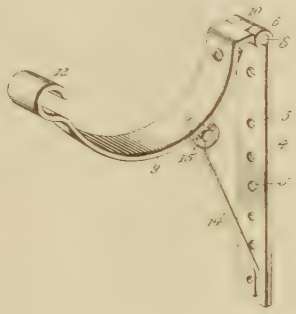


4. A peat product in the form of individual stick-line fragments of closely-compacted peat, each fragment having a substantially uniform cross-sectional dimension from one end to the other which is considerably less than half an inch.

1,414,345. EAVES-TROUGH HANGER. HERMAN EEFTINK, Leopold, Mo. Filed Mar. 23, 1921. Serial No. 454,671. 3 Claims. (Cl. 108—29.)

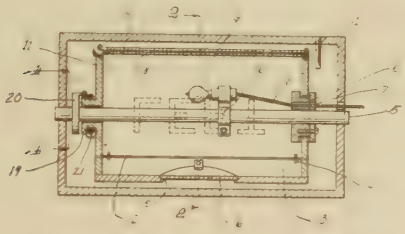
1. An eaves trough hanger comprising a base plate, an arcuated bracket hinged to the upper portion thereof,

and means carried on the underside of said bracket and adjustably connected with said base plate for retaining



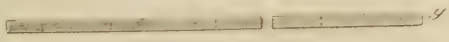
the bracket in various adjusted positions and substantially supporting the same.

1,414,346. AUTOMOBILE SIGNAL. JOHN B. EGER, Chicago, Ill. Filed June 20, 1921. Serial No. 478,976. 6 Claims. (Cl. 116—43.)



1. In a signal of the character described comprising a casing having an opening therein; a drum mounted in said casing; indicia punched in the periphery of said drum; an opening in said drum; a plate for said opening; spring clips on said plate adapted to secure same in said opening; a lens mounted in said plate, said plate being normally retained before the opening in said casing; and means for revolving said lens and said indicia past the opening in said casing, substantially as described.

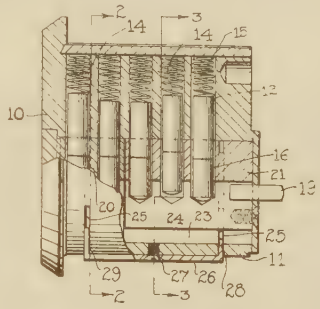
1,414,347. PROCESS OF MANUFACTURING TIN PLATES. TALIESIN EVANS, Llanelly, Wales. Filed May 3, 1921. Serial No. 466,626. 1 Claim. (Cl. 29—18.)



A process of manufacturing tin plates, consisting of the following steps: first, heating metallic bars and passing said heated bars through a pair of rolls, at first singly, then in pairs, one superposed upon the other, to reduce them to plate form and attain the required length; secondly, doubling the resulting plates; thirdly, reheating them in a second furnace, and fourthly, passing the doubled and heated plates through a second pair of rolls at first singly and then in pairs, one superposed upon the other.

1,414,348. PIN-TUMBLER LOCK. MORRIS FALK, Leominster, Mass. Filed Mar. 10, 1921. Serial No. 451,138. 3 Claims. (Cl. 70—47.)

1. In a pin tumbler lock, the combination of a pair of independently rotatable cylinders arranged end to end out of contact, each having pin holes for locking pins and having a circumferential groove, a frame provided with a corresponding number of spring pressed locking pins, and a plate having its ends projecting into said grooves for holding said cylinders independently against longitudinal motion.



2. In a pin tumbler lock, the combination of a pair of cylinders placed end to end, each of said cylinders having a row of holes for locking pins, a frame provided with a single row of locking pins, some for engagement in said holes in one cylinder, and the rest for engaging in the holes of the other cylinder, one of said cylinders having a longitudinal key-hole intersecting the row of pin holes and being provided with a longitudinal space extending under the key-hole whereby the bottom of the key-hole is left entirely open to prevent tampering with the pins entering the holes of the other cylinder.

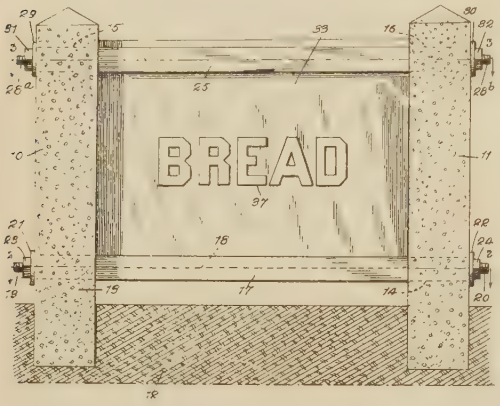
1,414,349. GARMENT. HATTIE FELS, New York, N. Y. Filed Dec. 5, 1921. Serial No. 519,959. 2 Claims. (Cl. 2—144.)

2. As an improved article of manufacture, a garment comprising an upper portion with vertically-disposed enlarged elongated opening, and a bifurcated lower portion, the latter having a rear flap, an elastic band at the upper edge of the said flap, and straps and cooperating means on the flap and upper portion whereby the upper portion may be adjusted vertically relatively to the lower portion in accordance with the height of the wearer.

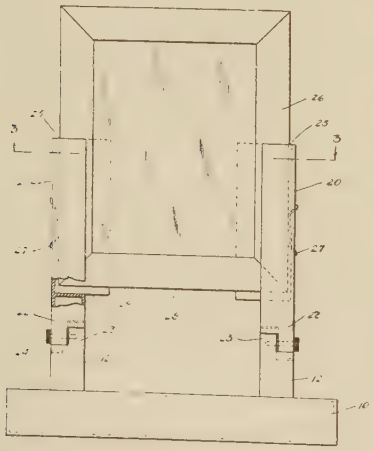
1,414,350. STATIONARY SIGN CONSTRUCTION. WILLIAM B. FINK, New York, N. Y. Filed Aug. 22, 1921. Serial No. 494,354. 3 Claims. (Cl. 40—125.)

1. A sign construction, comprising two columns supported in stationary upright positions in spaced relation and the columns having in their lower parts a removable bar disposed crosswise between the columns and the bar

having a groove in its upper lengthwise edge, two bars removably disposed in spaced parallel relation between the upper parts of the columns so that the space therebetween is in register with the groove of the lower bar, means on the ends of the grooved lower bar for releasably fastening the bar to the columns, means on the ends of the pair of bars for releasably locking the bars together and for detachably fastening the bars to the columns, and a surface element removably mounted in the space and in the groove of said bars between the columns.



1,414,351. PICTURE-FRAME STAND. LEWIS FRITZ, Chicago, Ill. Filed Nov. 30, 1921. Serial No. 518,785. 26 Claims. (Cl. 40—146.)

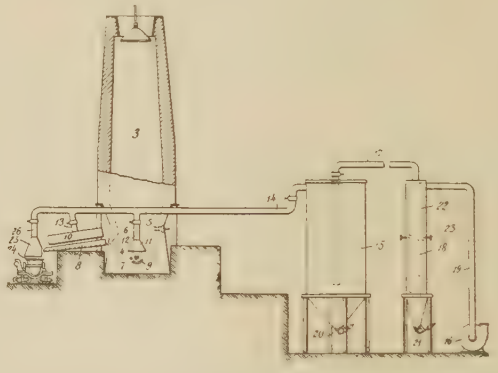


1. A picture frame stand including a base; a groove formed in said base and supporting members mounted in said groove, said members being adapted to be adjusted towards and away from each other, said supporting members comprising parts pivotally connected together, one of said parts adapted to receive a picture frame, substantially as described.

1,414,352. TAKE UP. GEORGE S. GATCHELL, Roselle Park, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed May 23, 1919. Serial No. 299,328. 14 Claims. (Cl. 112—245.)

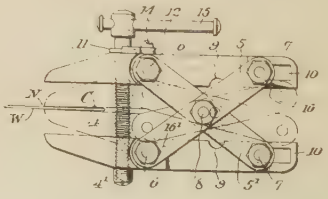
1. In a sewing machine, a movable take-up member having an extended thread-aperture therein, thread-guides cooperating with said take-up member and cast-off means coacting with said aperture to cast off the thread from one part of the aperture to another as the take-up action is completed.

1,414,353. RECOVERY OF POTASSIUM VALUES FROM FUMES. JAMES GAYLEY, New York, N. Y.; Henry B. Gayley and Walter S. Reed executors of said James Gayley, deceased. Filed Nov. 1, 1918. Serial No. 260,757. 1 Claim. (Cl. 23—22.)



The method of operating blast furnaces, which comprises carrying on the blast furnace process to produce metal and slag in the customary manner, tapping the metal and slag from the furnace hearth, collecting the slag in a ladle, and collecting the fume given off from the slag while in the ladle, the giving off of the fumes being promoted by agitation of the stag in the ladle.

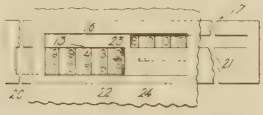
1,414,354. HAND VISE. STARR M. GIBBS, Mt. Rainier, Md. Filed Sept. 6, 1921. Serial No. 498,620. 1 Claim. (Cl. 81—18.)



A hand vise comprising jaws, each jaw including a jaw proper and a body section, an adjusting screw provided with an annular shoulder facing one of the jaws, cross

levers pivoted to each other at their place of intersection and having one pair of ends pivoted to said body sections contiguous to the said adjusting screw and the other pair of ends pivoted in slots in the opposite ends of the said body sections, a retaining device fastened to one of the body sections, one end of which fits over the annular shoulder of the adjusting screw to make the top jaw of the vise follow the annular shoulder of the adjusting screw as the adjusting screw is rotated to open the jaws, a lever handle mounted on said adjusting screw for operating the same, a cap screw on the opposite end of the adjusting screw serving as a safety device to prevent the breaking of the annular shoulder retaining device.

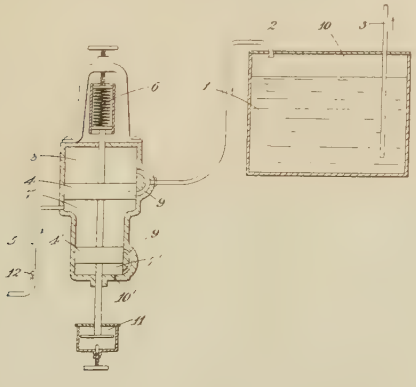
1,414,355. COMPUTING MACHINE. LOUIS E. GILES, New York, N. Y., assignor to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed June 30, 1920. Serial No. 392,964. 22 Claims. (Cl. 235—60.)



9. In an algebraic computing machine, in combination, computing wheels having positive and negative numbers thereon, a shutter adapted to facilitate the reading of a negative result, and means to stop the shutter in proper position to read a negative result, including a member movable parallel to the axis of said computing wheels, and notches in said computing wheels through which said member may pass.

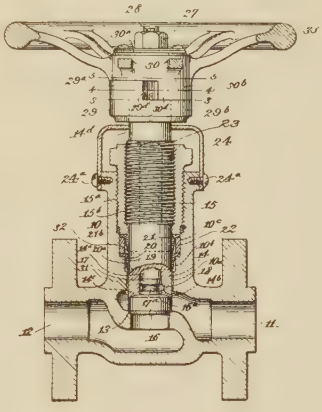
15. In a computing machine, the combination with computing wheels having digits for positive numbers and digits for negative numbers, of a transversely shiftable shutter adapted when in normal right hand position to direct attention to positive digits, means controllable by said wheels for variably arresting the shutter in its leftward movement, so as to direct attention to the correct negative digits when shifted to positions to read negative results, and yielding means normally holding said shutter in its right-hand position and effective to restore the latter thereto when released after use in reading a negative result.

1,414,356. INTERNAL-COMBUSTION ENGINE. LEWIS THOMAS GODFREY-EVANS, West Norwood, London, England. Filed Feb. 9, 1921. Serial No. 443,645. 2 Claims. (Cl. 158—36.) (Granted under the provisions of the act of March 3, 1921, 41 Stat. L., 1313.)



1. Apparatus for governing internal combustion engines, comprising a spring-controlled differential valve, so arranged that a volume of gas determined by a pressure or pressures within the cylinder of the engine at certain points in the expansion curve is allowed to pass the valve and so displace a corresponding volume of liquid fuel from its storage receptacle in order that this fuel may be admitted to the carburetter, substantially as described.

1,414,357. STOP VALVE. LEONARD B. HARRIS, Philadelphia, Pa., assignor to Harris Patents Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 13, 1916. Serial No. 136,658. 10 Claims. (Cl. 251—50.)



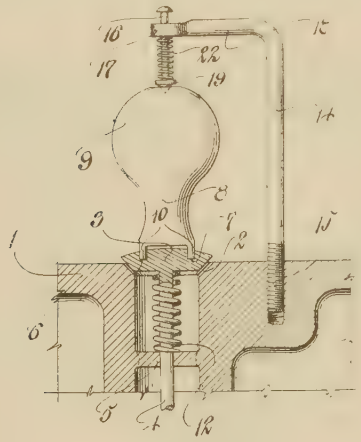
4. In a valve adapted for operation under continuous high-pressure conditions and in combination, a valve body having inlet and outlet ports with a valve seat therebetween, a threaded spindle carrying the valve, said valve body and spindle being complementally formed to provide an annular pocket intermediate the valve and threaded portion of the spindle, packing elements having sleeve-like portions adapted to contact the spindle within said pocket, means for spacing said elements to provide individual contact of said sleeve-like portions at successive points in the direction of length of the spindle, and means for clamping said elements in such positions and with a packing element in permanently-open communication with the flow path through said ports, said means including a bushing or gland threaded to the valve body and having a threaded connection with the spindle.

9. In a valve of the character described and in combination, a valve body having inlet and outlet ports with a valve seat therebetween, a threaded spindle carrying a valve, and means carried by the spindle for rotating it to move the valve to and from its seat, said means including a pair of superposed axially-alined members mounted on the spindle and having opposing faces adapted to co-act during rotational movements of the spindle, said spindle and one of said members having their contacting faces complemental to each other and of noncircular contour, said faces being relatively positioned to produce a lost motion relation between the members to permit a hammer-blow action to be applied to the spindle at will.

1,414,358. VALVE GRINDER. WILLARD H. HEATH, Spokane, Wash. Filed Nov. 5, 1919. Serial No. 335,834. 1 Claim. (Cl. 51—29.)

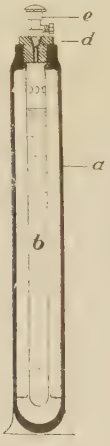
The combination in a hand operated grinding tool of an oscillatable handle and retaining pins on said handle to engage sockets in a valve, a resilient support for the

valve, a supporting post having a bearing, a pin in the bearing and provided with a bearing to engage said



handle, and a spring between the post bearing and pin bearing.

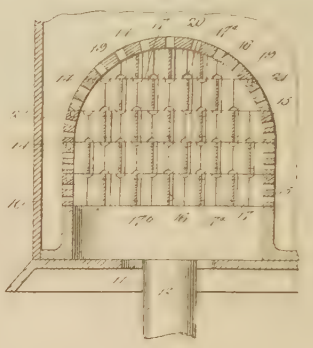
1,414,359. PROCESS FOR FILLING HIGH-PRESSURE VESSELS WITH LIQUEFIABLE GASES. PAUL HEYLANDT, Südende, near Berlin, Germany. Filed Jan. 3, 1921. Serial No. 434,825. 8 Claims. (Cl. 226—20.)



1. The process of filling compressed gas containers, which consists in placing a given quantity of liquefied gas in a vessel of low specific heat capacity suspended within the container, closing the container, and maintaining the walls of the container at a temperature above 0° C. until the enclosed substance has been converted into gaseous form.

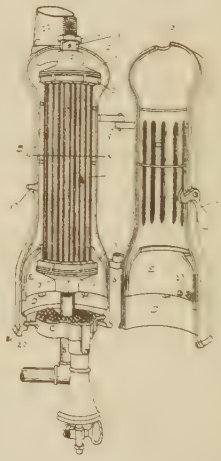
1,414,360. COMBUSTION CHAMBER. JOHN HICKS, Somerville, N. J. Filed Mar. 14, 1921. Serial No. 452,209. 6 Claims. (Cl. 158—99.)

6. A combustion chamber comprising a plurality of separable sections, each of said sections comprising a plurality of baffles arranged parallel with the axis of the burner, the baffles of each section arranged in staggered



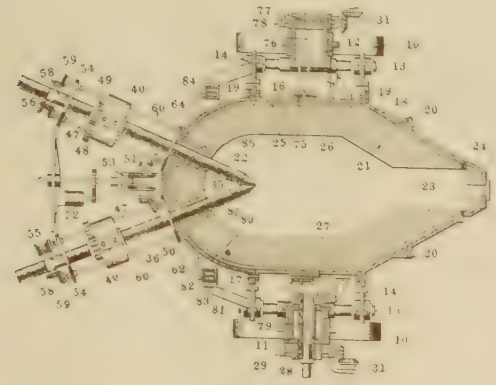
relation to the baffles of adjacent ones of said sections, and each of said baffles comprising a tooth or teeth projecting into the flue defined by such baffle as and for the purpose specified.

1,414,361. WATER HEATER. RUFUS J. HUTCHINS and JOHN KIRBY, Jr., Dayton, Ohio, assignors to The Dayton Manufacturing Company, Dayton, Ohio, a Corporation of Ohio. Filed Oct. 4, 1919. Serial No. 328,561. 10 Claims. (Cl. 122—333.)



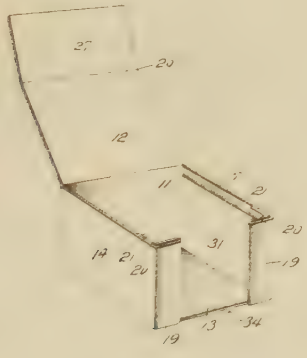
1. In a water heater, in combination, a heating unit, a water supply pipe connected therewith and constituting a support therefor, a casing comprising two sections hinged together adapted to inclose said unit; one of said sections having a vertically disposed flange member at the upper end thereof which engages an annular recess formed in said unit, a threaded extension projecting upwardly from said unit, and a nut operative on said extension having an annular recess formed in the under side thereof to engage the upper end of said flange member; whereby the casing is supported in a suspended position upon and wholly by said unit.

1,414,362. ELECTRIC FURNACE. ARTHUR JONES, Belleville, Ill. Filed May 13, 1920. Serial No. 380,990. 10 Claims. (Cl. 204—64.)



1. In an electric furnace, the combination with a melting chamber of a plurality of electrodes angularly arranged with relation to each other and means for rotating said electrodes during the operation of the furnace to maintain the form of the electrode points.

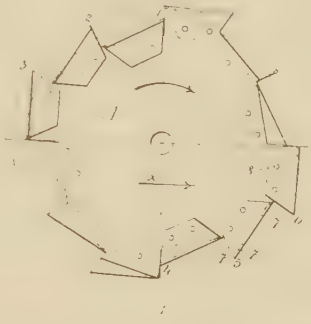
1,414,363. PAPER DISPLAY BOX. GERALD F. KELLY, New York, N. Y. Filed May 29, 1920. Serial No. 385,190. 6 Claims. (Cl. 206—44.)



1. A merchandise display box comprising a bottom, a back, sides, and a front whose corner portions are formed by extensions of said sides folded toward each other and then reversely to form two plies, said front between said corner portions being open and said bottom at its front corner edges having upwardly extending members located between the plies of said corner portions.

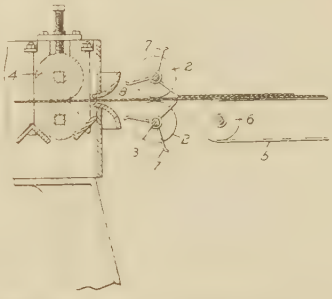
1,414,364. CULTIVATOR FOR TREATING THE SOIL. CHARLES KÖSZEGI, Budapest, Hungary. Filed Nov. 23, 1920. Serial No. 425,940. 2 Claims. (Cl. 99—64.)

1. In a cultivator, the combination with a rotatable disc, of a plurality of exchangeable hoes mounted along the outer edge of the said disc at various distances from the axis of rotation of the said disc, the said hoes being mounted on either side of the said disc in alternating groups, the hoes in each group successively increasing in distance from the axis of the said disc in the direction of its rotation, the groups of hoes on the same side of



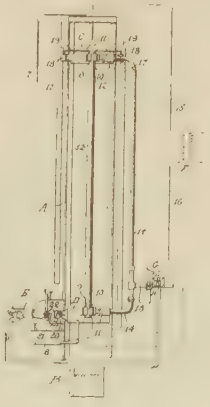
the disc being separated by an inoperative portion corresponding to the length of one group.

1,414,365. TIN-PLATE-CLEANING MACHINE. WILLIAM L. MCKEAN, Martins Ferry, Ohio, assignor to Steel Works Appliance Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 28, 1917, Serial No. 188,625. Renewed Sept. 24, 1921. Serial No. 502,997. 10 Claims. (Cl. 51—16.)



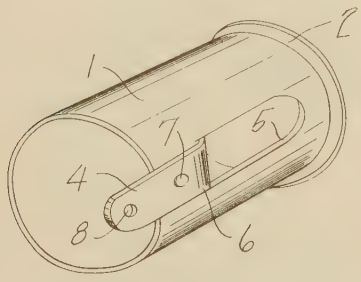
1. The combination of a tin plate cleaning machine with means for feeding the plates to said machine and means adapted to engage the front end of a sheet overlapping another without interrupting the forward movement of the sheet nearer the cleaning machine and to move out of engagement with the rear sheet.

1,414,366. METHOD OF AND APPARATUS FOR HEAT TREATING METALLIC ARTICLES. HARRY P. MACDONALD, Montclair, N. J., assignor to Snead & Company, a Corporation of New Jersey. Filed July 15, 1920. Serial No. 396,372. 24 Claims. (Cl. 148—10.)



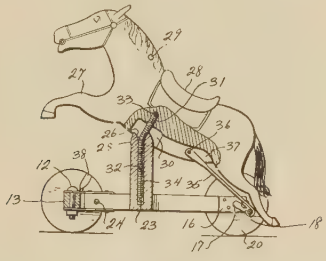
1. The herein described method of heat treating metallic articles which consists in cutting off the heat and in quenching at approximately the end of the critical period.

1,414,367. CHIMNEY THIMBLE. LOUIS B. MALINOWSKY and CLYDE W. KIRK, Patterson, Calif. Filed Nov. 19, 1921. Serial No. 516,336. 2 Claims. (Cl. 126—318.)



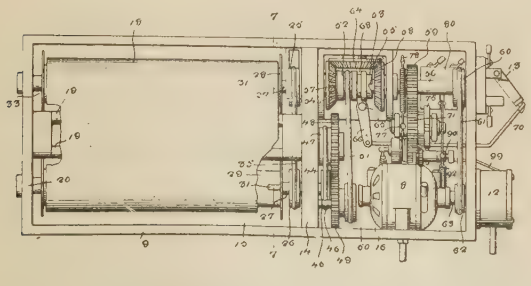
2. In a thimble for stove pipes, an integral retaining flange formed around the inner end, and an integral pipe holding tongue at its outer end, the tongue being cut free and being bent outwardly and down upon the thimble, and having a wire engaging hole at its free end.

1,414,368. ROCKING TOY VEHICLE. CLINTON D. MARLOWE, Sr., Johnstown, Pa. Filed Sept. 26, 1921. Serial No. 503,278. 3 Claims. (Cl. 208—42.)



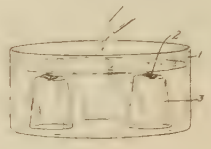
1. A toy of the character described comprising a main supporting frame including a pair of converging bars, upper and lower plates secured upon and projecting beyond the forward end of said frame, a front axle pivoted between said plates and carrying ground engaging wheels, a rear axle journaled through said frame and formed with a crank portion, a ground engaging wheel revoluble upon one end of said rear axle, a ground engaging wheel fixed upon the other end of the rear axle, a standard rising from the intermediate portion of the frame and formed with a triangular extension conformingly fitting between said bars, a rockable element pivoted upon said standard, and a pitman pivotally connected with the rockable member and said crank portion of the rear axle.

1,414,369. STATION INDICATOR. SAMUEL MITCHELL, Detroit, Mich. Filed June 30, 1920. Serial No. 392,923. 6 Claims. (Cl. 40—57.)



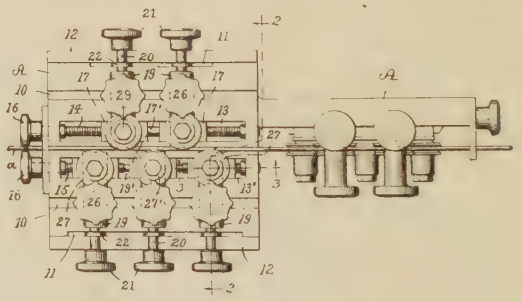
1. An electro-mechanical station indicator having a web bearing the names of stations, electro-mechanical means to move the web, and means to supply the electro-mechanical means with current at intervals in the traverse of a car and comprising automatic means to assure uniform actuation of the indicator irrespective of the speed of the car, said automatic means including a rheostat and an electromagnet.

1,414,370. METHOD OF MAKING PIEZO-ELECTRICAL CRYSTALS. ALEXANDER MCLEAN NICOLSON, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Apr. 2, 1918. Serial No. 226,343. 13 Claims. (Cl. 252.)



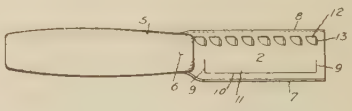
10. The method of growing a thin crystal which comprises supporting said crystal in a horizontal position above the bottom of a vessel containing a concentrated salt solution in such a manner as to reduce growth under the crystal.

1,414,371. WIRE STRAIGHTENER. AXEL H. NILSON, Bridgeport, Conn., assignor to The A. H. Nilson Machine Co., Bridgeport, Conn., a Corporation of Connecticut. Filed Dec. 27, 1920. Serial No. 433,288. 8 Claims. (Cl. 140—148.)



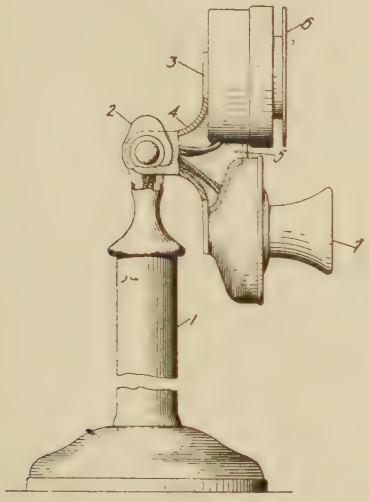
1. In a wire straightener of the class described, a series of aligned rolls, and means for simultaneously adjusting said rolls in such manner that the same can at all times remain equal distances apart.

1,414,372. GREEN-CORN IMPLEMENT. WALTER OLCOTT, South Manchester, Conn. Filed Jan. 6, 1922. Serial No. 527,316. 3 Claims. (Cl. 146—7.)



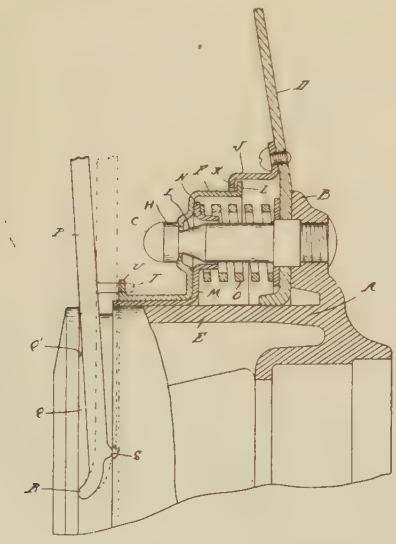
1. An implement of the class described comprising a handle provided with a blade member, the blade member having at one side thereof a blade and provided at the rear of the blade with a squeezing portion, the blade member having on its opposite side a row of teeth and also having back of the teeth a squeezing portion.

1,414,373. ADAPTER FOR CALLING DEVICES. HARRY W. PUGH, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Nov. 14, 1919. Serial No. 337,911. 2 Claims. (Cl. 179—90.)



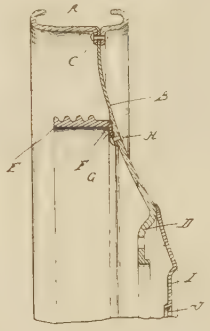
1. A telephone sub-station set including a transmitter, a standard, a calling device, a unitary support comprising a base plate to which said transmitter and calling device are attached, a rearwardly extruded hollow mounting lug integral with said base plate for attaching the support to the standard, and forwardly extending ears on said base plate cooperating with said lug, calling device and transmitter to form an enclosed cord chamber through which conductors may lead from said calling device and the transmitter to said standard.

1,414,374. DEMOUNTABLE WHEEL. ALDEN L. PUTNAM, Detroit, Mich., assignor, by mesne assignments, to Detroit Pressed Steel Company, Wilmington, Del., a Corporation of Delaware. Filed Oct. 31, 1919. Serial No. 334,694. 5 Claims. (Cl. 301—9.)



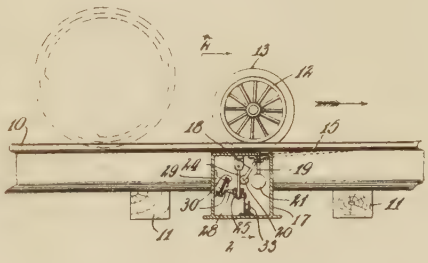
1. The combination with a hub, a disk for mounting thereon, of a stud projecting from said hub and engageable with a registering aperture in said disk, a spring permanently secured on said disk and surrounding the aperture for said stud, a member adjustably secured to said disk having an aperture which in one position of adjustment registers with said disk aperture and having a connecting slot of smaller diameter, and an undercut shoulder on said stud for engaging with the slotted portion of said member in another position of rotative adjustment and when said rotatively adjustable member is under the tension of said spring.

1,414,375. DISK WHEEL. ALDEN L. PUTNAM, Detroit, Mich., assignor to Detroit Pressed Steel Company, Wilmington, Del., a Corporation of Delaware. Filed Apr. 15, 1920. Serial No. 374,170. 4 Claims. (Cl. 301—6.)



1. A wheel comprising a rim, a dished disk of tapering section secured to said rim and arranged in such relation thereto that a radially inwardly-extending portion is inclined laterally outward from the central plane of rotation or plane of impact, and a brake flange secured outwardly of the plane of impact to the outwardly inclined portion of said disk.

1,414,376. AUTOMATIC RAILROAD-ACCIDENT PREVENTER. FRANK RUBY, Bridgeport, Conn. Filed Dec. 15, 1921. Serial No. 522,523. 7 Claims. (Cl. 246—90.)

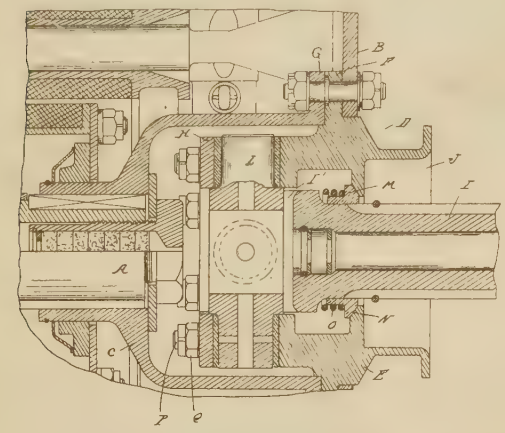


1. In a block signal system, an inclined lever adapted to be mounted adjacent a track rail and be depressed by a passing train, a pivoted arm adapted to be swung by said lever, a solenoid, a solenoid plunger carried by said arm, an electric signal operating element having said solenoid included in its circuit, and a pair of contacts included in said circuit adapted to be bridged by the said arm.

1,414,377. UNIVERSAL JOINT. EARL H. SHERBONDY, Detroit, Mich., assignor to Sidney D. Waldon, Detroit, Mich. Filed Apr. 20, 1921. Serial No. 463,001. 4 Claims. (Cl. 64—91.)

4. A universal joint comprising a shaft, a hollow hub member mounted on said shaft, a member peripherally attached to said hollow hub member and provided with spaced furcations extending thereinto, said member being centrally apertured, a shaft member passing through said central aperture and having a bifurcated end arranged in a plane transverse to the plane of sa difurcations, a cross

member trunnioned to engage the furcations in the transverse planes, and a member sleeved upon the inner shaft



member having a spherical surface engaging a spherical seat on the surrounding member to form an oil tight and dust proof seal for the parts within the hollow hub.

1,414,378. BRAKE LINING AND PROCESS OF MAKING SAME. SUMNER SIMPSON, Bridgeport, Conn., assignor to The Raybestos Co., Bridgeport, Conn., a Corporation of Connecticut. Filed Sept. 19, 1917. Serial No. 192,231. 3 Claims. (Cl. 91—70.)

1. A process of making brake linings and clutch facings, which consists in felting unwoven asbestos fiber in sheet form, saturating the felted fiber with a binder of mineral oil and gum contained in a mineral solvent, pressing, drying and curing by heat at a temperature in excess of 250° F., and cutting the lining at a predetermined point.

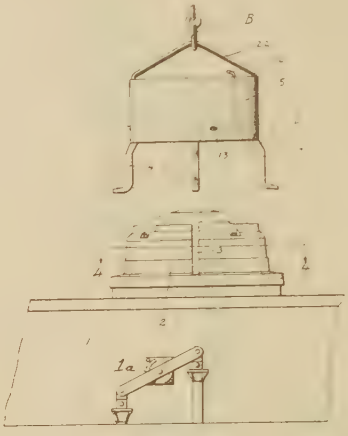
2. A process of making brake linings and clutch facings which consists in felting unwoven asbestos fiber in sheet form, saturating the felted fiber with an adhesive binder of mineral oil, gum and bitumens in a vehicle solvent to unite the fabric, pressing, drying and curing the material and cutting the lining at a predetermined point.

3. A process of making brake linings and clutch facings which consists in felting low grade asbestos fiber in an unwoven sheet, saturating the felted fiber with a binder of mineral oil, gum and bitumens in a vehicle solvent, pressing and drying the sheet, curing by heat at a temperature, in excess of 250° F. to produce a uniform texture product and cutting the lining in a predetermined manner.

1,414,379. PHONOGRAPH CABINET. ALBERT A. SINGLER, Denver, Colo. Filed Aug. 18, 1921. Serial No. 493,341. 4 Claims. (Cl. 45—52.)

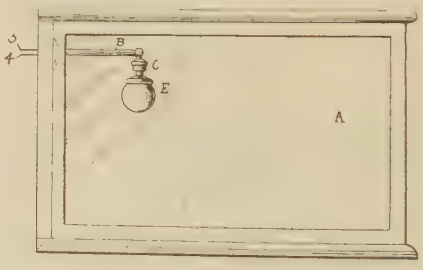
1. In a cabinet of the type used for the housing of sound reproducing machines, a box for the reception of the turntable and sound reproducing arm, a top for said box comprising two members hingedly connected to one another, a frame slidably connected to the top of said box and means for movably securing said top to said frame whereby said frame and said top may be simultaneously moved with respect to said box and the top moved relative to the frame.

1,414,380. STRIPPING MECHANISM FOR WIRE-DRAWING BLOCKS. JOHN SOMMER, Peoria, Ill., assignor, by mesne assignments, to The Union Trust Company, Cleveland, Ohio, a Corporation of Ohio, and John A. Chapman, Chicago, Ill., trustees. Filed Dec. 9, 1919. Serial No. 343,621. 6 Claims. (Cl. 242—81.)



4. A stripper for a wire drawing block, including a cylindrical casing, a plurality of coil supporting members pivoted to the casing interiorly thereof and in supporting position lying next adjacent the casing and protruding from said casing and extending laterally beyond the vertical plane thereof, a member supported to move axially within said casing, and means connecting said supporting member with said axially movable member, said axially movable member assuming its lowermost position when said supporting members are lying next adjacent said casing, and movable to its uppermost position to actuate and withdraw said supporting members when brought into contact with and operated by pressure from a coil receiving means.

1,414,381. HUMIDOR. JOHN V. SPRAGUE, Pittsburgh, Pa., assignor of one-half to Harry W. Cross, Bellevue, Pa. Filed Jan. 8, 1917. Serial No. 141,081. 2 Claims. (Cl. 219—41.)

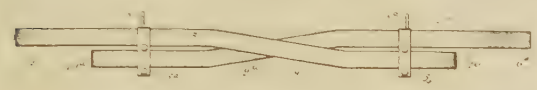


1. A combined humidifier and illuminating device comprising a supported incandescent bulb, a supporting disk carried by and fixedly secured with respect to the incandescent bulb and having a resilient gripping member at the peripheral edge thereof, a translucent fluid reservoir having an open top, said top adapted to fit within the peripheral edge of the supporting disk and to be held therein by the resilient gripping member thereby suspending the reservoir with the incandescent bulb immersed within the fluid therein.

1,414,382. AUTOMOBILE BUMPER. LEWIS F. STAFFORD, Chicago, Ill. Filed May 26, 1921. Serial No. 472,877. 8 Claims. (Cl. 293—55.)

4. A vehicle bumper comprising two impact-receiving members having their front end portions arranged in ver-

tical alinement with each other in different horizontal planes, the intermediate front portions of said members being obliquely disposed whereby said members cross each other at the center of the bumper structure to vertically



reverse the relative positions of the respective portions of said members, and rearwardly extending portions at the opposite ends of the front portions of each member for attachment to a vehicle.

1,414,383. FRICTION FACING. FREDERICK C. STANLEY, Bridgeport, Conn., assignor to Raybestos Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Sept. 24, 1919. Serial No. 325,912. 5 Claims. (Cl. 91—70.)

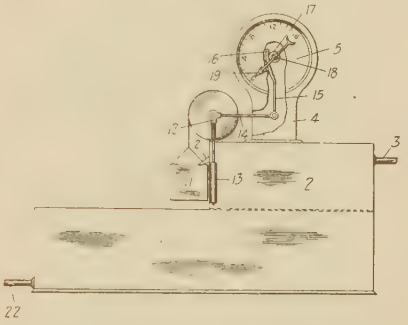
1. A friction facing formed of unwoven fibrous material containing an oxidized binder, and having a tensile strength in excess of 1700 pounds per square inch.

4. A friction facing composed of unwoven asbestos fiber containing an oxidized binder and a non-gaseous oxidizing agent, the binder being substantially insoluble in mineral oil, said facing having a tensile strength of at least 2000 pounds per square inch.

1,414,384. EXPLOSION ENGINE WORKING UNDER INJECTION OF LIQUID FUEL. EUGÈNE HENRI TARTRAIS, Maisons-Laffitte, France. Filed Nov. 21, 1918. Serial No. 263,582. 4 Claims. (Cl. 123—32.)

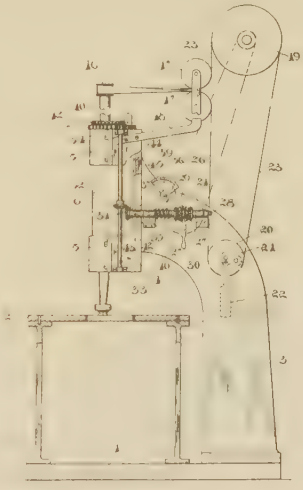
1. An explosion engine working under injection of liquid fuel and comprising in combination: a cylinder, means for cooling said cylinder, means in the wall of said cylinder for effecting the suction of air and the exhaust of burned gases, an uncooled combustion or explosion chamber provided outside the cylinder and coaxially with the latter and having a substantially toroidal form, its central part constituting a capacity in which a liquid fuel distributer atomizer extends axially and uniformly distributes the atomized fuel in radial directions about its axis, a passage in the center of the cylinder head, said passage opening axially into the explosion chamber, a piston working in the cylinder and an extension provided on the face of said piston in line with the opening in the head of the cylinder and having a section somewhat less than that of said opening, said extension entering said opening at the end of the stroke and causing the rapid flowing, into the explosion chamber, of the air compressed between the piston and the head of the cylinder, and an igniter substantially as described and for the purpose specified.

1,414,385. V-NOTCH LIQUID METER. WALTER E. TURNER, Piqua, Ohio. Filed Feb. 27, 1920. Serial No. 361,727. 2 Claims. (Cl. 73—167.)



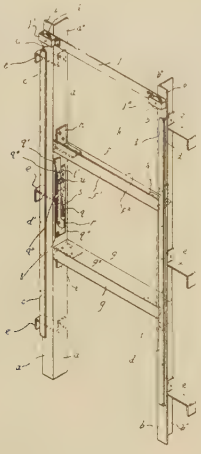
1. In a device of the type described, the combination with a weir box having V-notch, of means for delivering a liquid to be weighed to said weir box, a liquid container, a rotatable member mounted above said weir box, and flexible means adapted to be wound around said rotatable member for suspending said weir box above the liquid container, and for turning said rotatable member when the weight of the liquid in the weir box causes the latter to descend against the resistance of the rotatable member.

1,414,386. CYLINDER-GRINDING MACHINE. GEORGE R. WARD, Toronto, Ontario, Canada. Filed Apr. 8, 1921. Serial No. 459,649. 5 Claims. (Cl. 51—43.)



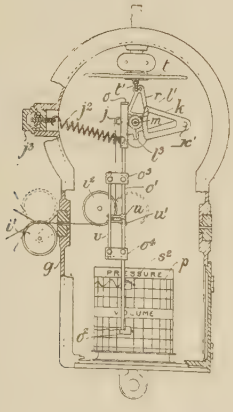
1. In a cylinder grinding machine, the combination of a supporting bracket; a head vertically slidable thereon; a sleeve rotatably mounted in said head; a bearing sleeve rotatably adjustable in the said sleeve; a spindle journalled eccentrically in said bearing sleeve; a pulley secured to the upper end of said spindle; a frame secured to the head; two pulleys horizontally journalled on said frame; a pulley on a line shaft above the said two pulleys; a weighted idler pulley located below said two pulleys and mounted to move vertically; and a belt passing around the spindle pulley between and around the two pulleys aforesaid and around the line shaft pulley and the idler.

1,414,387. DUMB-WAITER DOOR. BENJAMIN WEXLER, Brooklyn, N. Y., assignor to The Peelle Company, Brooklyn, N. Y., a Corporation of New York. Filed May 6, 1920. Serial No. 379,345. 9 Claims. (Cl. 189—46.)



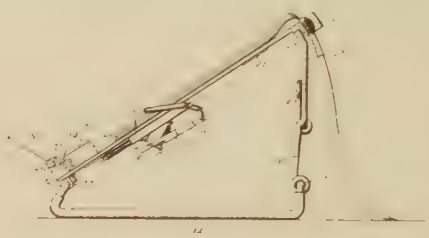
1. A dumbwaiter door embodying therein metal side bars, guides or tracks carried by said bars respectively, cross braces carried by said bars, said braces being spaced apart a distance equaling the height of a shaft opening, vertically movable door structure mounted upon said guides or tracks and adapted to close the space within said side bars and said cross braces, pulleys above the upper of said cross braces, and a suspension cable co-operating with said door structure and said pulleys.

1,414,388. APPARATUS FOR MEASURING, INDICATING, AND RECORDING THE FLOW OF FLUID. PERCY HUTCHINSON WILSON, Nottingham, England. Filed Sept. 2, 1921. Serial No. 498,037. 2 Claims. (Cl. 234—20.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



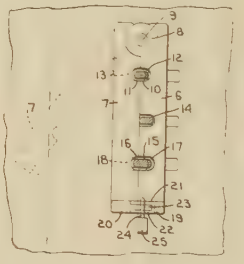
1. Apparatus for measuring the volume of air or other fluid passing through a pipe or chamber comprising a casing on the pipe or chamber, a lever pivoted in the casing and projecting into the pipe or chamber, a partial obstruction to the flow of fluid in the pipe or chamber disposed on the lever, a second casing separate from the casing on the pipe or chamber, a spring controlled toothed quadrant pivoted in the second casing, means for transmitting movement of the lever to the spring controlled quadrant, a pinion engaged by the spring controlled quadrant, a pointer adapted to be deflected over a dial by movement of the pinion engaged by the spring controlled quadrant to indicate the volume of fluid passing and a pen adapted to record in graph form the volume of fluid passing on a moving chart, means being provided whereby the pen is actuated by movement of the pinion engaged by the spring controlled quadrant.

1,414,389. COPY-HOLDING DEVICE. ALBERT N. WOODRUFF, New York, N. Y. Filed Oct. 9, 1920. Serial No. 415,712. 4 Claims. (Cl. 120—34.)



3. In a device of the character described, a base, a writing bed carried by the base and foldable with respect thereto, a carriage mounted for sliding movement on the writing bed, means for reciprocating said carriage in one direction and preventing reciprocating movement thereof in the opposite direction, a line indicator pivotally mounted on the carriage, and means associated with and operated upon pivotal movement of the line indicator for disconnecting the carriage-reciprocating means to permit of a free movement of the carriage in either direction.

1,414,390. PEDAL LOCK FOR AUTOMOBILES. FRANK WOOLLARD, Billerica, Mass., assignor of one-half to Guy L. Woollard, Boston, Mass. Filed Aug. 9, 1918. Serial No. 249,049. 1 Claim. (Cl. 70—126.)

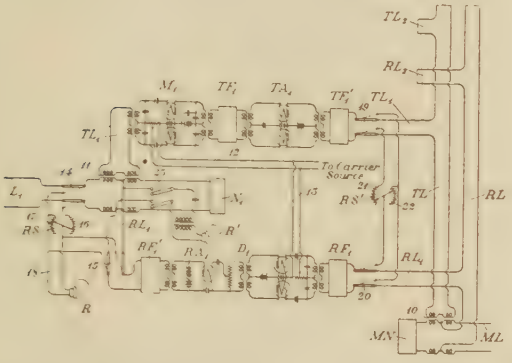


A pedal lever lock for automobiles compressing a plate formed in two sections having abutting edges and at one end overlapping circular portions secured together by a countersunk pivotal connection and at the opposite end having upwardly extending flanges provided respectively with a mortise and a complementary tenon adapted to be interengaged when the adjacent edges of the sections are juxtaposed, recesses in said sections extending from the abutting edges thereof adapted to receive the pedal levers of the automobile and hold them in substantial alinement and means for locking the flanges together including alined apertures in the walls of the mortise and the tenon adapted to receive the hasp of a padlock.

1,414,391. MEANS FOR AND METHOD OF TESTING UNBALANCE. HERMAN A. AFFEL, Brooklyn, N. Y., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Sept. 23, 1919. Serial No. 325,750. 6 Claims. (Cl. 179—175.)

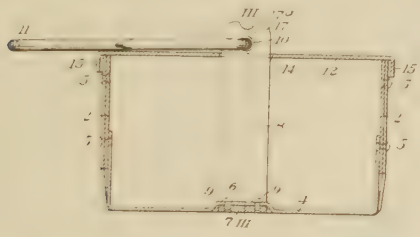
1. The method of determining the unbalance between oppositely directed channels of a multiplex carrier system

in which each pair of oppositely directed channels is associated with a common transmission circuit and with an individual low frequency signalling circuit in such a manner that the channels will be conjugate with respect to each other, which consists in disconnecting a pair of oppositely directed channels from one of said circuits while maintaining the connection with the other circuit intact,



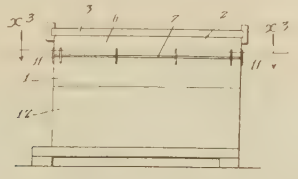
interconnecting the disconnected ends of the channels through a variable transmission element and then adjusting the transmission of said element until singing in the circuit begins or ceases, the adjustment of said transmission thereby indicating the degree of unbalance between the oppositely directed channels with respect to the connection which was not disturbed.

1,414,392. PORTABLE CONTAINER. WILLIAM L. AFFELDER, Crafton, Pa. Filed Nov. 1, 1919. Serial No. 335,101. 6 Claims. (Cl. 220—56.)



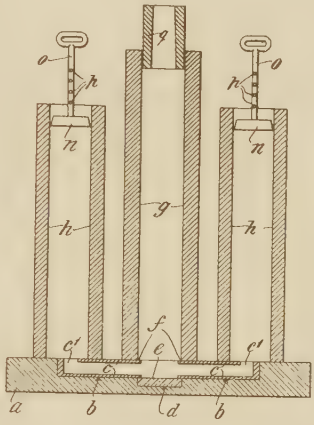
1. In a portable container, a post secured to the bottom thereof and projecting upwardly therefrom above the top of the container, a cover having an opening adapted to pass over said post, and a carrying member for said container cooperating with said post and preventing the removal of said cover, said carrying member having a restricted throat portion preventing accidental disengagement thereof from said post, substantially as described.

1,414,393. BEEHIVE. LESTER BAMBERGER, Riverside, Calif. Filed July 19, 1920. Serial No. 397,259. 1 Claim. (Cl. 6—1.)



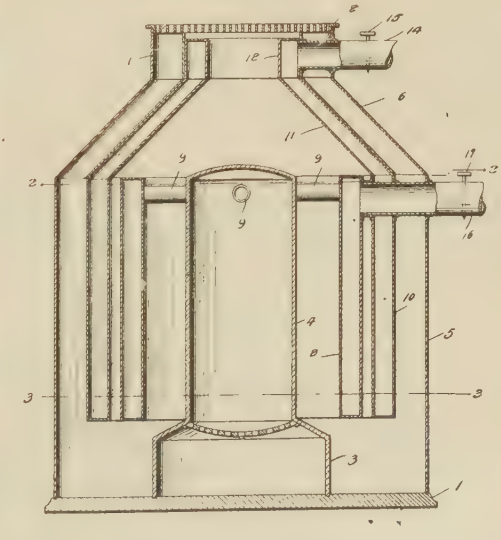
A bee hive comprising a lower member, a super mounted on the lower member, a screen having deeper and shallower frame members and having a foraminous member between said frame members, the screen frame being of the same length and width as the super and removably mounted on the upper edge of the super, and a cover removably positioned on the upper edge of the screen and adapted to fit upon the upper edge of the super when the screen is removed, there being means detachably engaging the super and screen to prevent lateral shifting of the screen.

1,414,394. APPARATUS FOR CASTING INGOTS. GEORGE BATTY, York, England. Filed May 11, 1920. Serial No. 380,624. 2 Claims. (Cl. 22—142.)



1. An apparatus for casting metal ingots comprising a base plate having a central recess, channelled runner bricks radiating from said recess, a central mould disposed above said recess and outer moulds disposed above and communicating from below with the outer ends of each of said runner bricks whereby the number of ingots produced is in accordance with the number of outer moulds plus that in the central mould, and metal stoppers adapted for insertion into the outer moulds at predetermined distances and to substantially fill the cross sectional area of said moulds, said stoppers each comprising a metal frame and a plurality of sections of bricks carried thereby, said brick sections being of refractory material and recessed on their under surfaces, the recesses when the sections are assembled in the frame forming a substantially hemispherical lower surface.

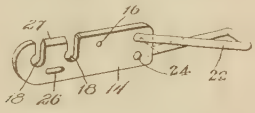
1,414,395. HOT-AIR FURNACE. CHARLES A. BEGGS, Rice Lake, Wis. Filed Sept. 1, 1921. Serial No. 497,595. 2 Claims. (Cl. 126—99.)



1. A hot air furnace comprising a body including a fire pot and combustion chamber, a hollow casing surrounding

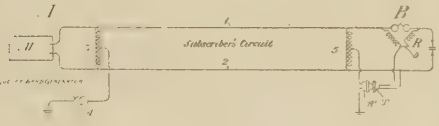
said body, short pipes radiating from the upper portion of the body and connecting the same with the upper portion of the hollow casing, a second hollow casing surrounding the primary hollow casing, short radiating pipes connecting the lower portions of the primary and secondary hollow casings, a smoke pipe connected with the upper portion of the primary casing and provided in its length with a close fitting damper and a second smoke pipe connected with the upper portion of the second hollow casing and having a damper in its lengtth.

1,414,396. TIRE GRIP CHAIN. ROBERT E. BENSON, Lodi, Ohio. Filed Jan. 3, 1919. Serial No. 269,496. 1 Claim. (Cl. 24—230.5.)



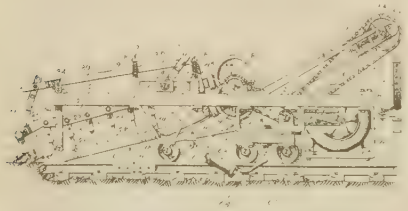
In a chain link coupling device, an elongated plate employed as a connector and having a pair of openings at one end disposed one near each longitudinal edge of the plate, a link open at one end and having its side portions deflected, the ends of said side portions being turned inwardly and engaged one in each of said openings in the said plate.

1,414,397. TESTING APPARATUS. FRED H. BEST, Westfield, N. J., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed May 14, 1920. Serial No. 381,462. 11 Claims. (Cl. 179—175.)



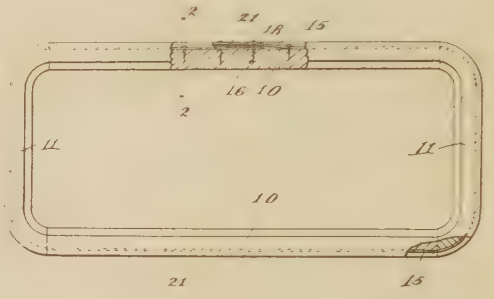
10. The method of determining the efficiency of transmission of a line consisting of two parallel conductors, which consists in sending energy one way over the line, translating this energy at the receiving end of the line and sending it back the opposite way over the line, and determining the amount of energy received at the initial sending end of the line, the transmission in one of the two ways being over the two conductors of the line in parallel and the other of the two ways being over the same two conductors in series.

1,414,398. SHOVELING MACHINE. HOWARD B. DENNIS, Grass Valley, Calif., assignor of one-fourth to Frederick W. Nobs and one-fourth to George W. Starr, Grass Valley, Calif. Filed May 1, 1919. Serial No. 295,202. 30 Claims. (Cl. 198—10.)



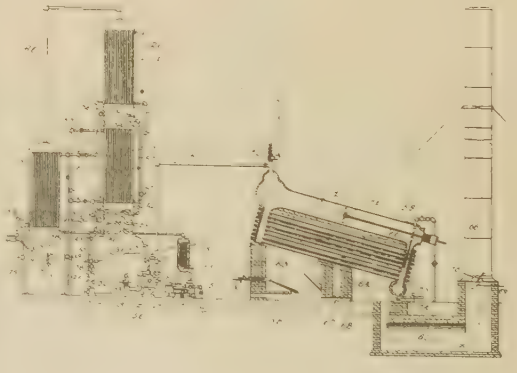
1. In apparatus of the character set forth, the combination with a digging member, of means for giving said member a back and forth movement, a scraping member operating over the digging member, and means for causing the scraper member to move simultaneously in an opposite direction to the digging member and towards and from said digging member.

1,414,399. VEHICLE WINDOW FRAME. CHARLES M. DWYER, Los Angeles, Calif. Filed Aug. 30, 1921. Serial No. 496,842. 5 Claims. (Cl. 296—145.)



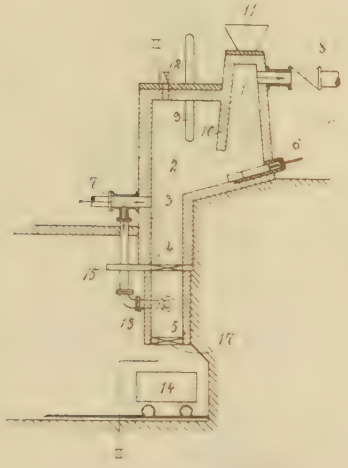
2. In a vehicle curtain window frame, a series of rails assembled to form a frame, beads formed on the edges of the outer edge of said frame, and a metal band arranged between said beads, the ends of which band are secured to each other and to said frame.

1,414,400. PROCESS FOR THE CONVERSION OF HYDROCARBON OILS. VICTOR LEE EMERSON, Philadelphia, Pa. Filed May 10, 1920. Serial No. 380,171. 6 Claims. (Cl. 196—25.)



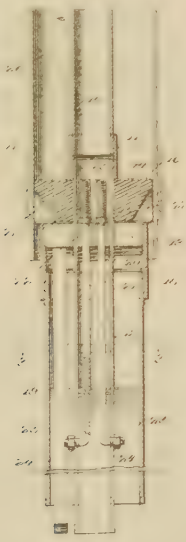
1. The process of converting heavy hydrocarbon oils into lighter hydrocarbon oils which consists in distilling a mass of heavy hydrocarbon oils under pressure, progressively separating the gaseous products of distillation by condensation in a series of zones of successively lower temperature, subjecting a portion of the condensates to a heat interchange with the freshly formed gaseous products of distillation by intimate contact with said condensates, mixing a fresh mass of oil with said condensates, and returning the resultant mixture into the material undergoing distillation under pressure, and drawing off such condensates as are desirable as a final product.

1,414,401. PROCESS FOR THE DESTRUCTIVE DISTILLATION OF COAL AND OTHER MATERIAL. PEDER FARUP, Slemdal, near Christiania, Norway. Filed Nov. 4, 1920. Serial No. 421,746. 8 Claims. (Cl. 204—64.)



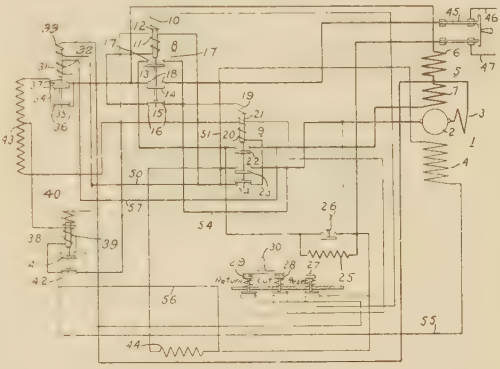
1. Process for the destructive distillation of coal and other materials, which comprises partially destructively distilling said material by indirect radiated electrical heating and continuing the destructive distillation of said material by direct heating.

1,414,402. FLOWING DEVICE FOR WELLS. LOUES FRIEDMAN, Muncie, Ind., and DAVID WALLACE, Tulsa, Okla. Filed Mar. 27, 1922. Serial No. 546,948. 8 Claims. (Cl. 166—3.)



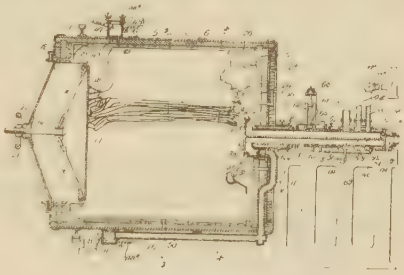
1. A flowing device for oil wells including a cylindrical shell open at its lower end to receive oil and gas therein, and closed at its upper end, an outflow tube having connection with the upper end of the cylindrical shell and by means of which the latter may be lowered into a well casing, a tube supporting barrel within and spaced from the shell, and one or more pressure tubes within the barrel, the lower ends of which open through the barrel and into the shell, and the upper ends of which open into the said outflow tube.

1,414,403. SYSTEM OF CONTROL. ADOLPH A. GAZDA, Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 8, 1917. Serial No. 206,140. 7 Claims. (Cl. 172—240.)



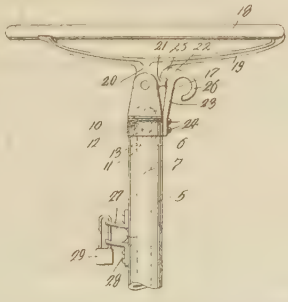
1. In a system of control, a motor having an armature and a divided series field winding having two portions, a resistor adapted to be connected in circuit with either of said portions, and means for completing a circuit through the armature, the resistor and one of said portions to effect dynamic braking, and means for varying the effective portion of said resistor in case of failure of power.

1,414,404. PROCESS OF TREATING HIDES AND HIDE-TREATING APPARATUS. CHARLES JOHN GLASEL, New York, N. Y., assignor, by mesne assignments, to Luise Hagen Glasel, New York, N. Y. Filed Apr. 12, 1917. Serial No. 161,449. 51 Claims. (Cl. 149—11.)



1. The process of treating hides and skins secured within a receptacle, comprising moving the hides and skins therein working them from points other than their suspension and circulating a tanning medium within the container without stopping the motion of the containers.

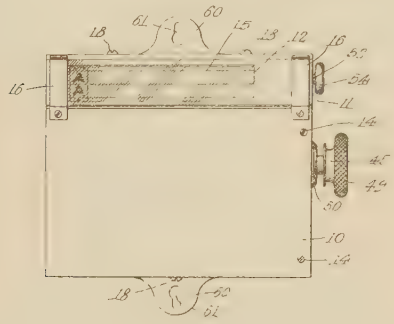
1,414,405. STEERING WHEEL AND LOCK THEREFOR. DONALD C. GOSSETT and ELDON F. GOSSETT, Detroit, Mich. Filed May 9, 1919. Serial No. 295,911. 3 Claims. (Cl. 74—33.)



1. The combination with a steering post and a steering wheel pivoted thereto, of a pair of spaced arms secured

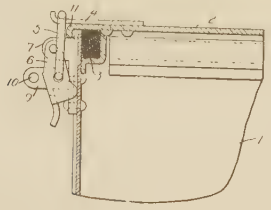
to the post to receive therebetween a portion of said wheel, and means for connecting the free ends of the arms to prevent said portion of the wheel from becoming disengaged from between said arms.

1,414,406. RECORDING AND EXHIBITING DEVICE. WILLIAM F. HARTHUN, Newport, Ky. Filed July 27, 1921. Serial No. 487,968. 3 Claims. (Cl. 40—93.)



1. In a device of the character described, a frame, rolls pivotally mounted within the frame in spaced relation and adapted to carry a flexible strip or sheet, gears secured to the ends of said rolls, a casing enclosing the frame and having an opening through which the strip or sheet is visible, said casing being provided in one end with a slot having lateral extensions, a slide mounted upon one side of the frame to move longitudinally thereof, an operating gear carried by the slide and arranged between said gears, a shifting arm connected with the slide and arranged between the frame and side of the casing, a lateral extension carried by the shifting arm and operating within said slot, and extending to the exterior of the casing and adapted to be shifted into the lateral extensions of said slot to be locked therein, and separate means to turn the operating gear.

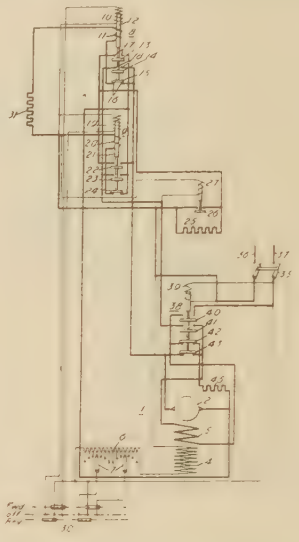
1,414,407. CLAMPING DEVICE. ALBERT L. HARVEY, Braddock Townsbip, Allegheny County, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 16, 1918. Serial No. 254,311. 4 Claims. (Cl. 70—3.)



3. The combination with a member having a hook, of a relatively movable member having a projection, a finger piece pivotally mounted upon said relatively movable member and having a recess, and a link pivotally mounted upon said finger piece and adapted to engage said hook to clamp said members together, said projection being adapted to lie in said recess to prevent relative movement of said link and said hook.

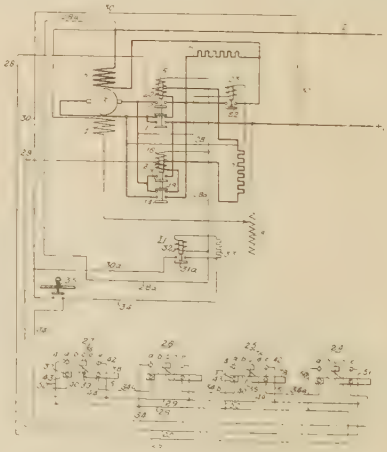
1,414,408. MOTOR-CONTROL SYSTEM. ALBERT L. HARVEY, Braddock Township, Allegheny County, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 4, 1918. Serial No. 260,953. 5 Claims. (Cl. 172—240.)

1. The combination with an electric motor having an armature, a series field-magnet winding, a shunt field-magnet winding, and a dynamic-braking resistor, of means for connecting said armature in circuit with said resistor to effect dynamic braking when said shunt field-magnet wind-



ing is energized, and means for connecting said armature and said series field-magnet winding in a local circuit to effect dynamic-braking when said shunt field-magnet winding is not energized.

1,414,409. MOTOR-CONTROL SYSTEM. ALBERT L. HARVEY, Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed July 7, 1920. Serial No. 394,438. 11 Claims. (Cl. 172—179.)

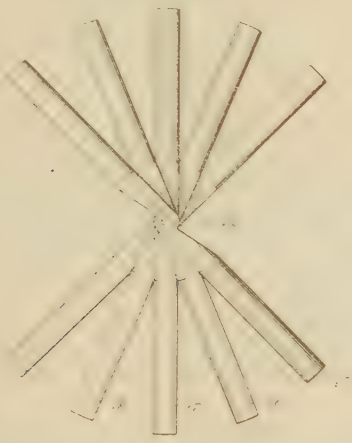


1. The combination with a dynamo-electric machine, and means for effecting two different types of operation thereof, of a plurality of controlling devices in predetermined electrical arrangement and each having a plurality of positions adapted for remote control of said machine, and means associated with each of said controlling devices whereby any subsequent device is operative only during the period that a prior device occupies a predetermined position.

1,414,410. HELICOPTER. WENZEL HAUPT, New York, N. Y. Filed Mar. 23, 1920. Serial No. 368,204. 15 Claims. (Cl. 170—165.)

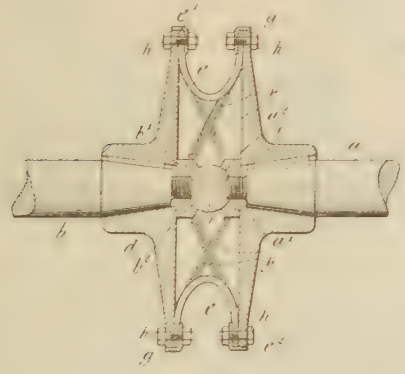
1. In a propeller, the combination of five parabolically arranged blade units placed on top of and connected with

each other and having a common central axis, each unit comprising a pair of symmetrical blades of equal pitch, said units being disposed at an angular distance of 22½ degrees from each other, thus providing two free angular distances of 90 degrees between the top and bottom units,



the pitch of these blade units varying by arithmetical progression from the first term of 9 degrees to the last term of 45 degrees, said blades being so disposed that the upper or cutting edge of one blade lies in the same plane with the lower or delivery edge of the adjacent blade.

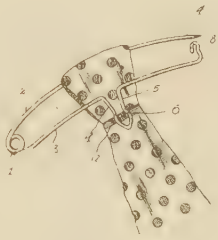
1,414,411. UNIVERSAL JOINT. ALEXANDER GRISWOLD HERRESHOFF and AUGUST H. LEIPERT, New York, N. Y. Filed Dec. 23, 1919. Serial No. 346,916. 4 Claims. (Cl. 64—96.)



1. A universal joint including driving and driven disks, straight flexible non-metallic transmission elements secured fixedly at one end to one of said disks and at the other end to the other of said disks and independent straight flexible non-metallic transmission elements secured fixedly at one end to the first named disk and secured fixedly at the other end to the second named disk, the second named transmission elements extending in the opposite direction of rotation of the disks from the first named transmission elements and crossing the first named transmission elements, respectively, at points between the disks, all of said transmission elements extending along straight lines between the disks to apply the lines of driving force along straight lines.

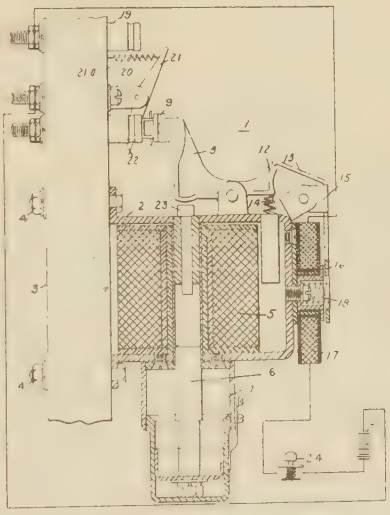
1,414,412. COMBINATION NECKTIE HOLDER AND COLLAR BUTTON. HARRY LIONEL HILL, Bellamy, Ontario, Canada. Filed Nov. 3, 1920. Serial No. 421,591. 2 Claims. (Cl. 2—84.)

1. A necktie holder comprising in a single integral element a resilient member bent at substantially its medial point to form a coil with substantially parallel extensions therefrom, the upper extension being bent in arc form with its free end terminating in a substantially sharp point, the lower extension being extended in substantially the same arc form and at its medial point bent downwardly at right



angles to the extension and thence bent at substantially right angles thereto to form a spear-shaped portion, the free end of the lower extension being bent upwardly to form a catch for co-operation with said sharp point, and means cooperating with said necktie holder for securing the same to a collar or neckband.

1,414,413. ELECTRICAL SWITCH. CHARLES H. HODGKINS, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 16, 1917. Serial No. 202,344. 8 Claims. (Cl. 175—294.)

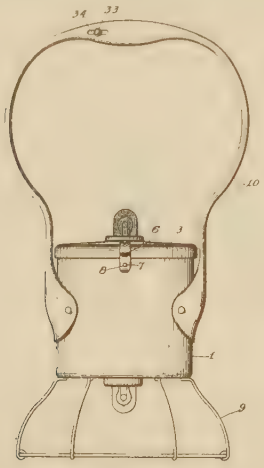


1. A switch mechanism comprising a pivoted contact-controlling member having a circuit closing and a circuit opening position, and a latch member yieldingly engaging the pivoted member in one position of the pivoted member and restraining said member in its other position when said pivoted member is actuated thereto.

1,414,414. LANTERN. GUSTAVE HUMBER, Denver, Colo. Filed June 26, 1919. Serial No. 306,771. 2 Claims. (Cl. 240—8.5.)

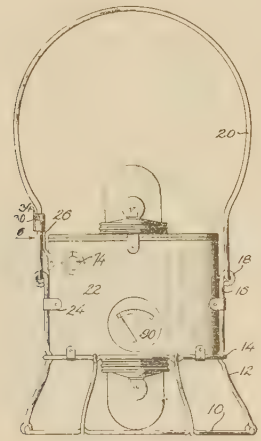
1. A signal lantern comprising a body, a handle, a pair of signal lamps arranged upon the top and bottom of said

body portion, respectively, displaying different colors, a battery within said body, an open frame base for said body,



and means for selectively connecting said lamps to said battery, substantially as described.

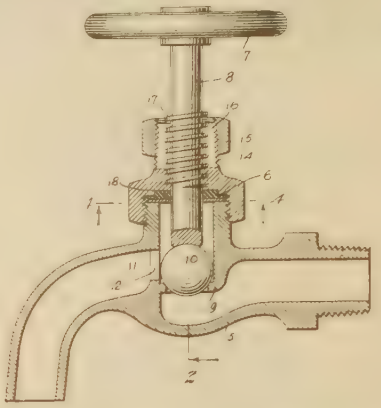
1,414,415. ELECTRIC LANTERN. GUSTAVE HUMBER, Denver, Colo. Filed Dec. 2, 1919. Serial No. 341,878. 6 Claims. (Cl. 240—8.5.)



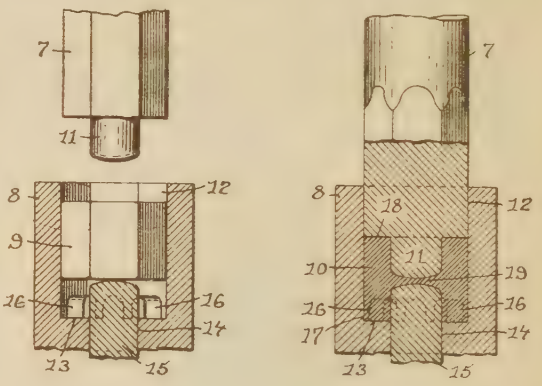
5. An electric lantern comprising a frame, a casing thereon, a battery within the casing, retaining members on the inner sides of the casing, means engaged with said members and passing over said battery to retain the same in position, and a lamp on the casing having connections with the battery for lighting the same, each retaining member having an inwardly disposed depending part engaging the sides of the battery to prevent lateral movement thereof.

1,414,416. VALVE. PATRICK J. HUSSEY, New York, N. Y. Filed Mar. 24, 1921. Serial No. 455,083. 2 Claims. (Cl. 251—49.)

2. A valve, including a housing, a cap secured to said housing, gaskets interposed between said cap and housing, an extended portion forming a part of said cap, said extended portion being formed of a plurality of sections, and being tapered throughout its entire length, a valve stem extending through a bore in said cap, the extended portion of said cap being formed with screw threads and a nut adapted to encircle said extended portion and to be mounted upon said screw threads so as to cause said extended portion to firmly embrace said stem.

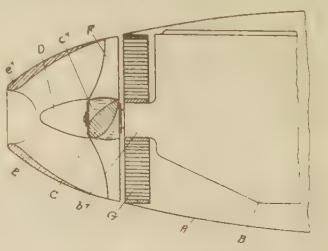


1,414,417. MEANS FOR MAKING CASTELLATED NUTS. FERNANDO OSCAR JAQUES, Jr., Providence, R. I., assignor of one-half to Harold Caldwell Peckham, Cranston, R. I. Original application filed Feb. 28, 1919, Serial No. 279,742. Divided and this application filed July 28, 1919. Serial No. 313,800. 1 Claim. (Cl. 10—76.)



Means for making castellated nuts comprising a member having a cavity the shape and size of the nut to be castellated, projecting members in said cavity adapted to form castellations on the nut, and a member having a sliding fit in said cavity, whereby on forcing the last mentioned member into said cavity, castellations are formed on the nut by compressing the metal of the nut.

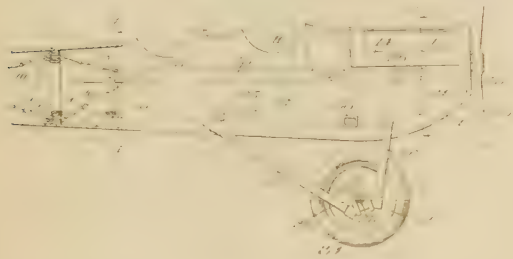
1,414,418. COOLING DEVICE FOR AERIAL VEHICLES. PAUL JARAY, Friedrichshafen, Germany, assignor to Luftschiffbau Zeppelin Gesellschaft mit beschrankter Haftung, Friedrichshafen, Germany, a German Corporation. Filed June 28, 1920. Serial No. 392,567. 1 Claim. (Cl. 244—31.)



In a device of the kind described in combination, a propeller, a motor disposed behind said propeller, a ra-

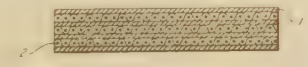
diator between said propeller and said motor, a closed inner hood on the hub of said propeller and an open outer hood surrounding said inner hood at a distance therefrom.

1,414,419. STRUCTURAL ELEMENT. ROBERT KEMP and FREDERICK H. JOHNSON, Buffalo, N. Y., assignors to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed June 30, 1916. Serial No. 106,886. 14 Claims. (Cl. 244—31.)



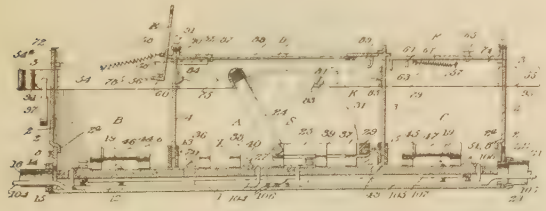
1. A structural aircraft body formed of a plurality of tubular sections having inwardly extending flanges, and means connecting said flanges, said sections being composed essentially of fibrous material compounded with phenolic condensation products acting as a binder.

1,414,420. COMPOSITE LAMINATED BODY. WILLARD H. KEMPTON, Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed June 17, 1918. Serial No. 240,307. 7 Claims. (Cl. 154—46.)



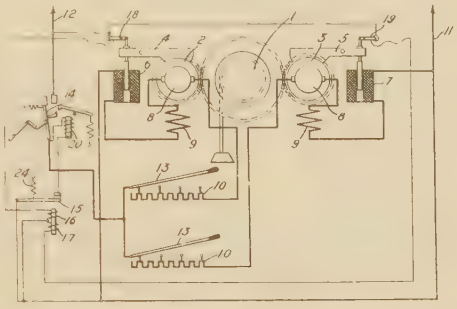
1. A composite laminated body comprising alternate sheets of woven material and of matted material, all impregnated with a hardened binder.

1,414,421. DOUBLE-THROW SWITCH. LAWRENCE F. KRIES, Baltimore, Md., assignor to Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 17, 1917. Serial No. 186,703. 15 Claims. (Cl. 200—50.)



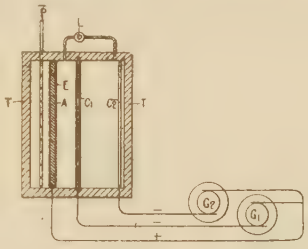
15. The combination with a casing having a switch compartment and two fuse compartments, a fuse in each fuse compartment, a double-throw switch in the switch compartment for alternatively connecting the fuses thereto and a door for each fuse compartment, of means for so interlocking the doors with the switch that, when the switch is connected to one of the fuses, the door for its respective compartment is held in closed position.

1,414,422. MOTOR-CONTROL SYSTEM. EDWIN S. LAMMERS, Jr., Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 16, 1919. Serial No. 271,473. 11 Claims. (Cl. 172—179.)



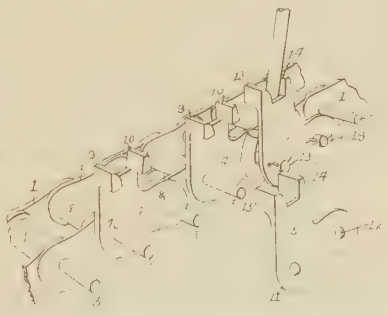
8. The combination with a plurality of electric motors operatively connected to the same mechanical load, of means for independently controlling the circuits of the several motors and means controlled by said controlling means for controlling the circuits of said motors simultaneously.

1,414,423. ELECTROLYTIC SEPARATION OF METALS. CARL LANGER, Woolhampton, England. Filed Apr. 11, 1921. Serial No. 460,323. 7 Claims. (Cl. 204—5.)



1. In a pervious cathode adapted for use in the deposition of metals by electrolysis, said cathode consisting of a metal plate with openings through the same, metal in the form of loose pieces packed in the apertures of said plate in such manner as to leave interstices for the percolation of an electrolyte therethrough, and means for retaining the said loose pieces of metal in the openings of said plate, said means being such as to be pervious to an electrolyte.

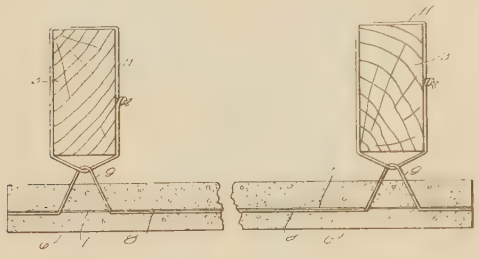
1,414,424. CONVEYER CHAIN. CLARENCE J. LAWSON, Yonkers, N. Y. Filed June 20, 1921. Serial No. 478,941. 2 Claims. (Cl. 198—134.)



1. A conveyer chain for drying ovens comprising a chain, side plates thereon provided with spaced clips ex-

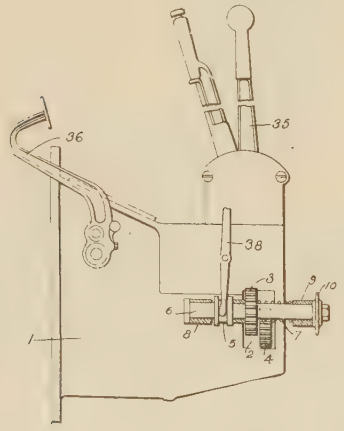
tending beyond the chain, hooks swingingly secured to the chain and free to swing toward and away from said clips.

1,414,425. WALL CONSTRUCTION. JOHN H. LEWIS, Cicero, Ill. Filed Jan. 21, 1921. Serial No. 438,947. 3 Claims. (Cl. 72—20.)



1. In a wall construction, a slab made of a hardened plastic material, said slab having a reenforcing and binding screen disposed between the faces thereof, and a reenforcing wire disposed adjacent to and on one side of said screen, said wire terminating at the sides of said slab and being provided with a laterally extending loop midway between its ends, said loop being adapted to project outwardly from said slab.

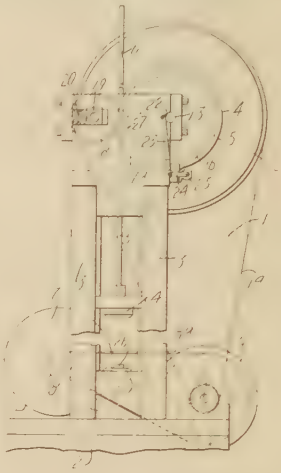
1,414,426. DUMP HOIST. CYRENIUS LOSCH, Schuylkill Haven, Pa. Filed Sept. 13, 1920. Serial No. 409,954. 1 Claim. (Cl. 298—21.)



The combination with a truck including a transmission, a hinged body, and an upwardly extending derrick mounted to swing toward and from the body, of a drum supported beyond one side of the truck body, a flexible connection between the drum and one end of the body, an internal gear revoluble with the drum, a gear meshing therewith, a spring restrained shiftable gear, means for transmitting motion from said shiftable gear to the gear engaging the internal gear, and means under the control of the driver for moving the shiftable gear into mesh with a gear of the transmission.

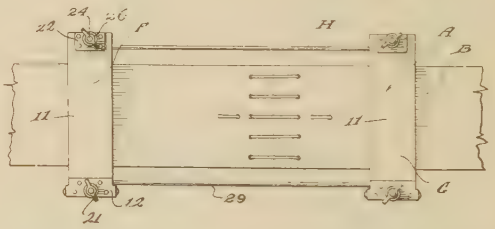
1,414,427. TESTING DEVICE. TILLMAN D. LYNCH, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 26, 1913. Serial No. 808,712. 5 Claims. (Cl. 265—13.)

1. A testing device including an anvil, an impact member movable into and out of engagement with the anvil, a bar operatively connected to the impact member, friction rollers engaging against opposite sides of the bar, means for rotating one of the rollers, resilient means



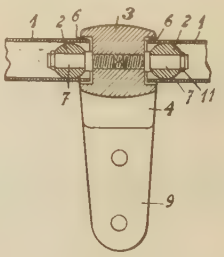
holding the other roller in yielding engagement with the bar and means for intermittently moving such roller out of engagement with the bar.

1,414,428. HEAVY-DUTY BELT ADJUSTER. NEWTON J. MCCAY, Coalinga, Calif. Filed Feb. 17, 1921. Serial No. 445,804. 8 Claims. (Cl. 164—79.)



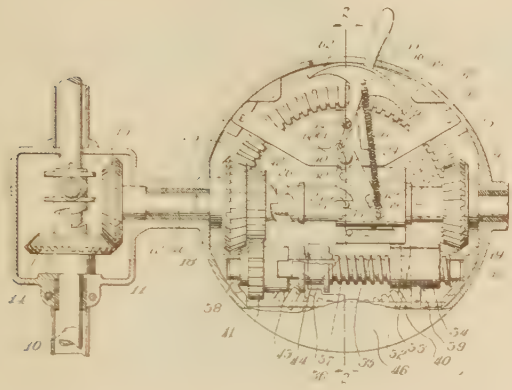
1. A tool for facilitating repairs to transmission and drive belts comprising a pair of spaced clamps including adjustable jaws, means for adjusting the clamps toward and away from each other, and a frame slidably associated with the device for holding various belt tools.

1,414,429. FISHING BOAT. ALBERT MADÖRIN, Quarten, Switzerland. Filed June 22, 1921. Serial No. 479,555. 1 Claim. (Cl. 193—55.)



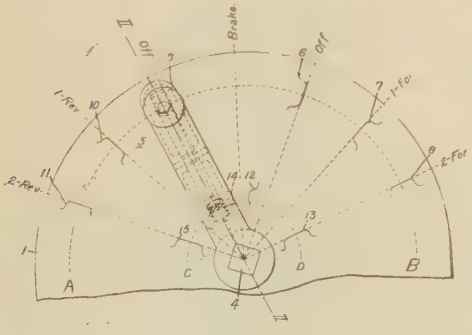
In combination, a member having a recess in one side and also having means whereby said member may be attached to a gunwale, a tubular roller arranged with one end in said recess, a bearing ball in said end of the roller and a supporting member for said bearing ball and on which the same rotates, said supporting member being attached to and projecting from the first-named member.

1,414,430. DRIVING MECHANISM FOR WASHING MACHINES. LAWRENCE W. MAMMEN, Chicago, Ill. Filed June 18, 1920. Serial No. 389,801. 10 Claims. (Cl. 74—50.)



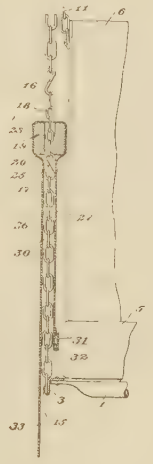
1. In driving mechanism of the class described, a gear adapted to transmit motion to the device to be operated, a shaft disposed transversely of the gear, a pair of gears loosely mounted on said shaft and arranged in mesh with the first mentioned gear at diametrically opposite points, a double clutch member slidably keyed to the shaft intermediate of the loosely mounted gears and adapted to alternately have clutching engagement with said gears, a member slidable on said clutch member and adapted to control the latter, means adapted to travel in directions lengthwise of said shaft and in controllable relation with said last mentioned member, intermeshing gears intermediate of said means and one of the loosely mounted gears, a pair of pivotally mounted levers having operative relation with each other at points intermediate of their pivotal points, one of said levers being adapted to be manually controlled, while the other lever has operative relation with the second mentioned member, and tension-applying means intermediate of the two levers whereby a positive movement of said levers to opposite sides of their pivotal points will be induced.

1,414,431. CONTROL APPARATUS. PAUL L. MARDIS, Swissvale, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 7, 1919. Serial No. 281,129. 9 Claims. (Cl. 74—88.)



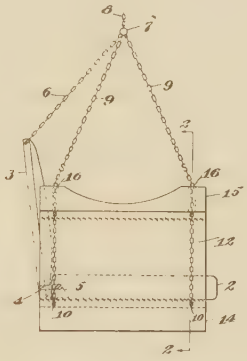
1. The combination with a movable handle embodying a rocking member, of independent sets of stationary means for engaging opposite ends of said member to effect positive stops of said member in a series of positions.

1,414,432. COUCH HAMMOCK. HARRY MINTZ, Boston, Mass. Filed Apr. 23, 1921. Serial No. 463,897. 11 Claims. (Cl. 5—61.)



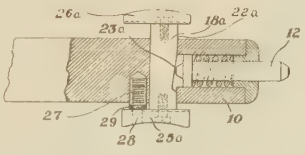
1. A hammock comprising a seat frame, spaced flexible supports therefor, and an arm rest having elements slidably and frictionally engaging the respective supports whereby said arm rest may be adjusted along said supports relatively to the seat frame.

1,414,433. HAMMOCK. HARRY MINTZ, Boston, Mass. Filed July 19, 1921. Serial No. 485,860. 9 Claims. (Cl. 5—61.)



1. A hammock comprising a seat frame, flexible supports engaging and directly supporting said frame, a vertically adjustable arm rest having openings adjacent to its ends, said supports passing freely through said openings and means independent of said arm rest for supporting a strip of fabric constituting a wind shield.

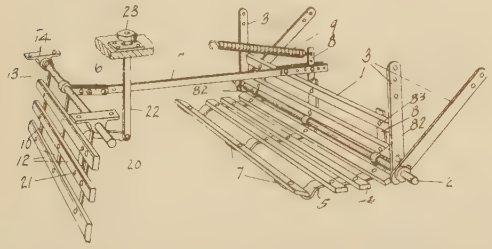
1,414,434. ADJUSTABLE LIMIT GAUGE. LAWRENCE E. OLSEN, Troy, N. Y., assignor to Pratt & Whitney Company, New York, N. Y., a Corporation of New Jersey. Filed July 26, 1920. Serial No. 398,901. 22 Claims. (Cl. 33—143.)



1. A gauge for determining internal dimensions comprising in combination, a frame, an outward projecting contact pin at one end of the frame, an outward projecting contact pin at the other end of the frame and

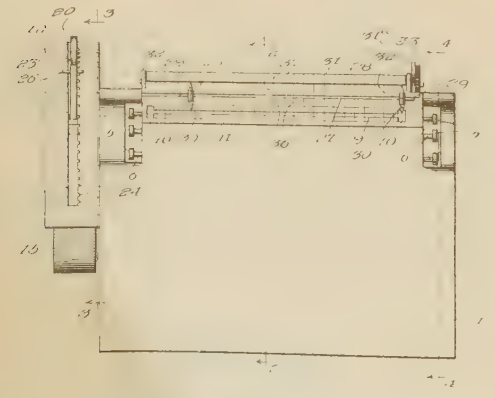
movable inward or outward with respect thereto, the said frame extending directly along straight lines from one pin to the other, and mechanism for moving the movable pin through a definite predetermined distance, the said mechanism having a cam surface engaging the pin and having two separate limit stops held in fixed relation to each other and with their active faces adjacent.

1,414,435. LIFE GUARD FOR STREET CARS OR SIMILAR VEHICLES. FRED N. ROOT, Kalamazoo, Mich. Filed Oct. 18, 1921. Serial No. 508,421. 6 Claims. (Cl. 293—35.)



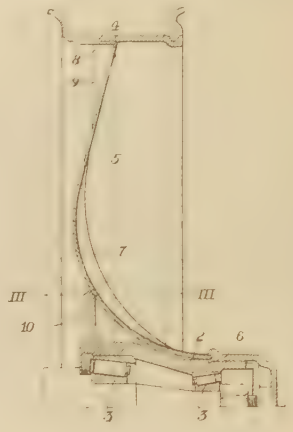
1. In a lifeguard, the combination of a cradle adapted to be disposed beneath the car, the said cradle comprising angled cross bars of spring metal, a supporting rock shaft therefor secured to the said cradle by suitable cross bars with their lower ends turned into engaging eyes and their upper parts secured to said angled cross bars, an upwardly projecting arm on the said cradle, a suspended pivoted gate with brackets for supporting it under the front portion of the platform of a car, a rearwardly projecting arm on said gate, a pivoted link connecting the rear end of said arm and the upwardly projecting arm on the said cradle with a beveled joint between the said arm and link for limiting its downward movement, and a tension spring adapted to connect the upper end of the arm of the cradle to the under side of the car, and resetting means comprising a rearwardly extending lever arm secured to the said gate with an upwardly disposed treadle piece adapted to extend above the floor of a car, all coacting as specified.

1,414,436. COMPUTING MACHINE. WILLIAM EDWIN ROYSTER, Jr., and KENNETH BETHEL ROYSTER, Henderson, Ky. Filed Sept. 3, 1920. Serial No. 407,864. 11 Claims. (Cl. 235—87.)



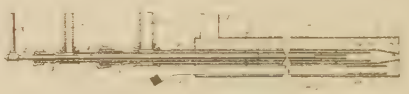
1. A computing machine comprising movable roller supporting members, a plurality of series of chart rollers carried thereby, a pinion connected to one of said roller supporting members, a disk having an arcuate rack operatively connected with said pinion whereby the movement of said disk operates said roller supporting members, and an operating lever for said disk.

1,414,437. VEHICLE WHEEL. EDWIN E. SLICK, Pittsburgh, Pa. Filed Feb. 25, 1920. Serial No. 361,113. 14 Claims. (Cl. 301—64.)



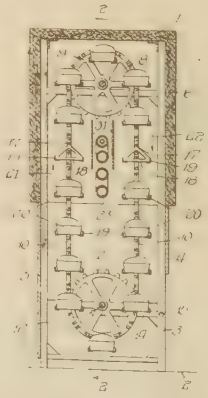
1. A vehicle wheel, comprising a continuous one-piece disk having a central portion extending outwardly substantially parallel to the axis of rotation of the wheel, a peripheral portion extending substantially normal to said axis of rotation, and an imperforate intermediate portion connecting said portions and curved gradually from the central portion to the peripheral portion, substantially as described.

1,414,438. FUEL BURNER. ALBERT W. SMITH and GEORGE A. COLLINS, Youngstown, Ohio. Filed Apr. 3, 1920. Serial No. 371,028. 10 Claims. (Cl. 158—73.)



5. In a fuel burner, an exterior cooling chamber having connections for circulating a cooling medium therethrough, and also having a longitudinal seat therein, in combination with a fuel supply device mounted on said seat and movable longitudinally, vertically or horizontally of said chamber, substantially as described.

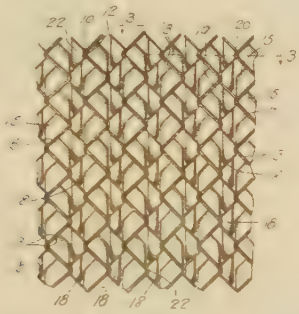
1,414,439. PROCESS OF BAKING. FREDERICK T. SNYDER, Oak Park, Ill., assignor to S. D. Flood, Chicago, Ill. Filed July 30, 1919. Serial No. 314,254. 10 Claims. (Cl. 107—54.)



1. The process of baking consisting in confining a body of air; bringing the upper portion of the body of air to baking heat and the lower portion to proofing temperature;

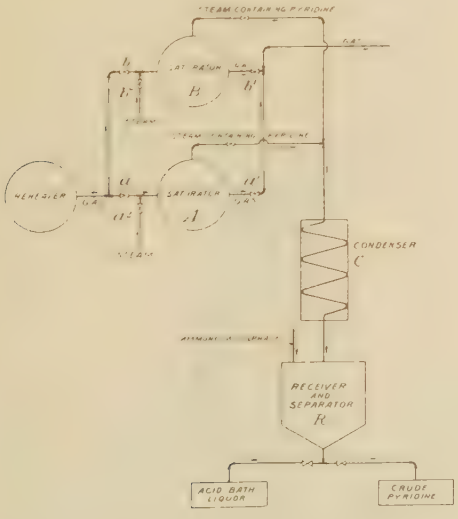
and passing dough upwardly through the proofing and baking portions of said body of air, the rate of progress being so proportioned that the lumps of dough are completely proofed and ready for immediate baking as they pass from one portion to another.

1,414,440. RADIATOR CORE. JOHN SORENSEN, Ottawa, Ill. Filed Oct. 4, 1920. Serial No. 414,499. 4 Claims. (Cl. 257—130.)



1. In a radiator core a plurality of spaced water container members providing air passages therebetween, each of said water container members comprising a pair of sheet metal members provided with curved corrugations, and sheet metal partitions in said air passages provided with corrugations curved in a direction opposite to those of the water container members.

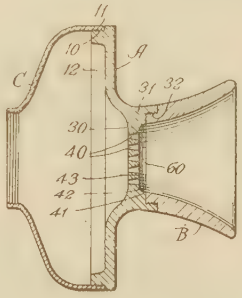
1,414,441. RECOVERY OF PYRIDINE FROM AMMONIUM SULPHATE SOLUTIONS. FREDERICK W. SPERR, Jr., and RALPH L. BROWN, Pittsburgh, Pa., assignors to The Koppers Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 5, 1920. Serial No. 414,758. 16 Claims. (Cl. 23—24.)



1. That step in the herein described process of recovering pyridine from acid solutions containing pyridine which consists in distilling off the pyrdine from the acid solution, substantially as described.

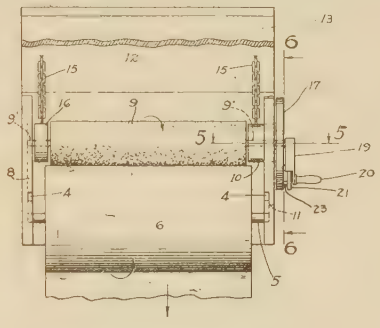
1,414,442. TELEPHONE TRANSMITTER. LOUIS STEINBERGER, Brooklyn, N. Y. Filed June 26, 1919. Serial No. 306,791. 5 Claims. (Cl. 179—179.)

4. A telephone transmitter comprising a mouthpiece of insulating material in the form of a hollow flared shell, and an integral metallic transmitter cap having a substantially smooth, unobstructed perforated portion oppo-



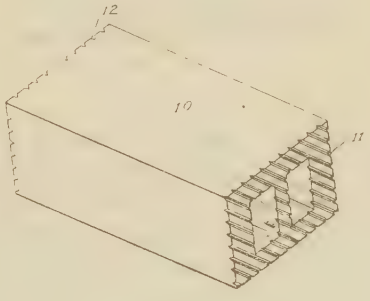
site the orifice of said mouthpiece, said transmitter cap and said mouthpiece being provided with coacting screw-threads for securing them together.

1,414,443. TOWEL CABINET. GEORGE A. STEINER, Salt Lake City, Utah, assignor to American Linen Company, Minneapolis, Minn., a Corporation of Minnesota. Filed Feb. 3, 1921. Serial No. 442,127. 12 Claims. (Cl. 43—32.)



1. The combination, with a towel roll, of a measuring device mounted to automatically check unwinding of the towel when a predetermined length has been delivered, said device becoming automatically set when pull upon the towel ceases to allow the unwinding operation to be repeated.

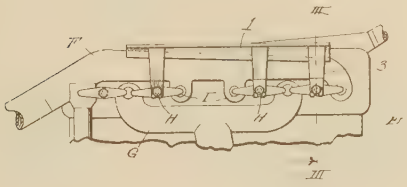
1,414,444. BUILDING TILE. HALVER R. STRAIGHT, Adel, Iowa. Filed June 10, 1920. Serial No. 388,018. 2 Claims. (Cl. 72—41.)



2. An improved hollow tile building block formed with grooves in the face of each end, those at one end being ar-

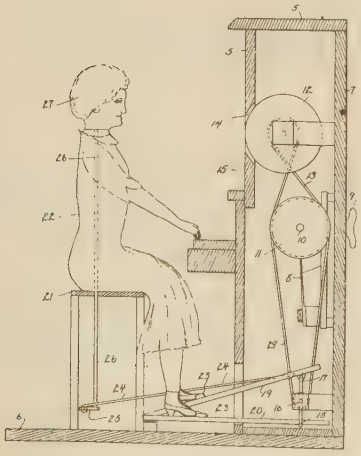
ranged in angles divergent from the plane of the face of the block, and those at the other end being arranged at angles divergent from those on the first mentioned end, for the purposes stated.

1,414,445. VULCANIZING ATTACHMENT FOR INTERNAL-COMBUSTION ENGINES. JOHN M. STUCKER and WILLIAM J. KAMERER, Rosedale, Kans. Filed Sept. 6, 1921. Serial No. 498,760. 4 Claims. (Cl. 18—18.)



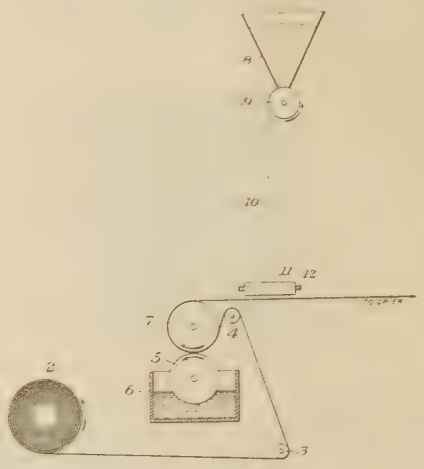
1. The combination with the exhaust manifold of an internal combustion engine, of a flat plate superposed with respect to the manifold and heated thereby through conduction and radiation, and a casing vulcanizing plate having a channelled upper face, in superposed relation to the first-named plate.

1,414,446. MUSICAL TOY. GIUSEPPE E. TERRANOVA, New Haven, Conn. Filed June 2, 1921. Serial No. 474,384. 2 Claims. (Cl. 46—40.)



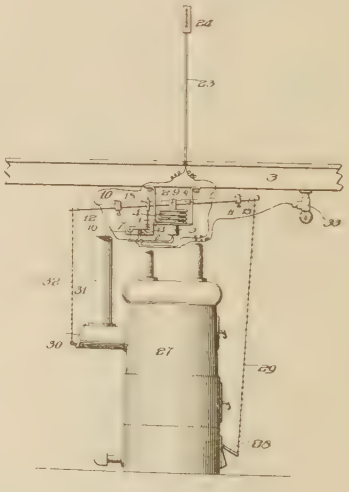
1. A musical toy, comprising a casing, formed in its front face with an opening and provided with a back, a spring-operated music-producing device mounted in the said casing, said music-producing device including a shaft, a drum representing a perforated music-roll supported in the casing in line with the opening in the front thereof, cranks mounted near the bottom of the casing, pedals resting on said cranks and adapted to be raised and lowered thereby, connections between said shaft, drum and cranks whereby they are moved with the said shaft, and a doll mounted in front of the casing and having feet resting upon said pedals and adapted to move therewith.

1,414,447. ABRASIVE COATED SHEET AND METHOD OF MAKING THE SAME. FRANK J. TONE, Niagara Falls, N. Y., assignor to The Carborundum Company, Niagara Falls, N. Y., a Corporation of Pennsylvania. Filed May 20, 1920. Serial No. 382,804. 8 Claims. (Cl. 91—68.)



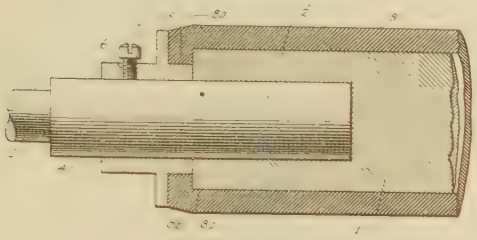
1. The method of making abrasive sheets which consists in securing abrasive grains to selected or separated portions of the face of the sheets leaving other portions uncoated.

1,414,448. ELECTRIC DRAFT CONTROLLER. FRANK D. WINDELL, Philadelphia, Pa. Filed Nov. 27, 1920. Serial No. 426,883. 7 Claims. (Cl. 236—68.)



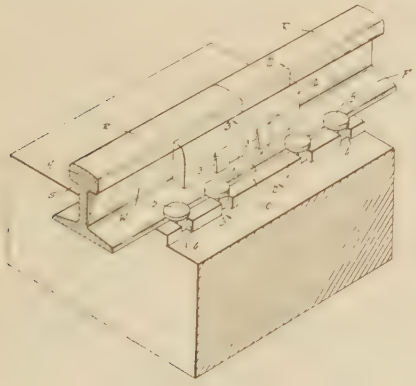
2. The combination with a heater having an air inlet damper and a check damper, of an electrically operated draft controller comprising the following instrumentalities:—an expansible and contractible liquid containing member, a lever connected with said member and actuated thereby, an electric heater controlling the temperature of the liquid, switch mechanism having a fixed contact and a movable lever in circuit with said heater, a thermostat in circuit with said heater and said switch mechanism, said switch mechanism including an apertured block through which said first lever extends and in which it has limited movement, and connections from said first lever to said air inlet damper and to said check damper.

1,414,449. ROLL. JOHN WITZIG, Astoria, N. Y. Filed July 22, 1920. Serial No. 398,160. 3 Claims. (Cl. 91—67.8.)



1. An improved roll embodying a core, a spindle projecting beyond each end thereof, a collar fitted over each spindle and secured in place thereon, each collar being of lesser diameter than the diameter of the core, and provided intermediate its ends with an integral flange of lesser diameter than the finished roll, and a facing of tubular form encircling the core and provided at its opposite ends with inturned flanges which extend over the opposite ends of the core, and abut the inner faces of the flanges of the collars, the opposite ends of said facing being tapered beyond the ends of the core to conform with the flanges.

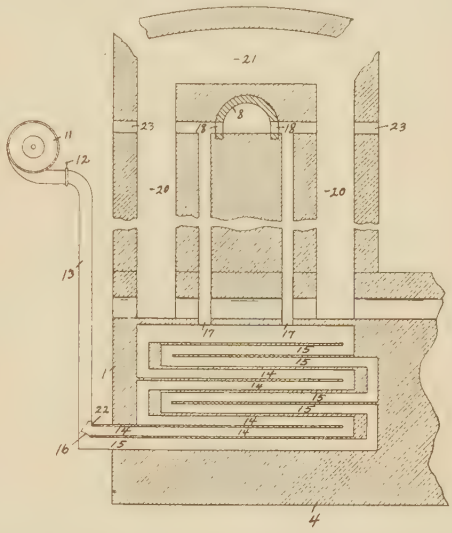
1,414,450. RAIL JOINT. JOHN J. ZNAK, Broughton, Pa. Filed Feb. 4, 1922. Serial No. 534,075. 1 Claim. (Cl. 238—216.)



In a rail joint, the combination with adjoining ends of rails having openings formed through the base flanges thereof in spaced relation to the rail web, of fish plates abutting the side faces of the web of adoining ends of the rails and provided in their outer faces with notches coinciding with the openings of the base flanges of the rail, and a plate arranged beneath the rails and embodying integral lugs extending through the openings of the base flanges and engaging in said notches, said plate being of greater width than the rail base and being provided with openings through which retaining elements may be extended for engagement with a tie.

1,414,451. OPEN-HEARTH-FURNACE DEVICE. ALEXANDER ARTHUR, Youngstown, Ohio. Filed Feb. 7, 1921. Serial No. 443,001. 2 Claims. (Cl. 263—15.)

1. In a device of the class described, a partition wall separating a gas slag pocket and an air slag pocket, said partition wall provided with a plurality of tortuous paths, an air passage lead from said tortuous paths to an



opening on each side of a gas port, means for alternating said tortuous paths, substantially as described.

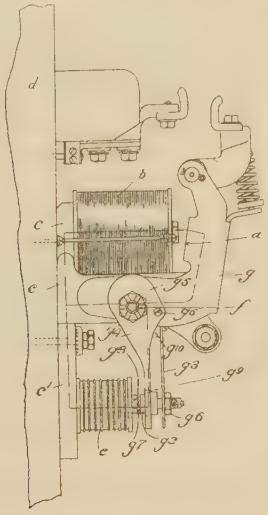
1,414,452. TABLETTE FOR CHAIRS. BERTHOLD W. BLAUERT, Marysville, Calif. Filed July 30, 1921. Serial No. 488,602. 6 Claims. (Cl. 155—127.)

1. As an article of manufacture, a tablette adapted to engage from one arm rest to another of a chair, a stationary support secured on the under surface of the tablette near one end, a second support mounted for longitudinal adjustment on the under surface of the tablette, and means carried by said supports for engaging with the upper and lower faces of the arm rests of a chair, thereby supporting the tablette in position thereon, a slide for carrying the adjustable support, and means cooperating with the adjustable support to insure rigidity between the support and the tablette.

1,414,453. ELECTROMAGNETIC LOCKOUT SWITCH. ROBERT PEEL BOSSOM, Brighton, England. Filed July 23, 1918. Serial No. 246,404. 1 Claim. (Cl. 200—94.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

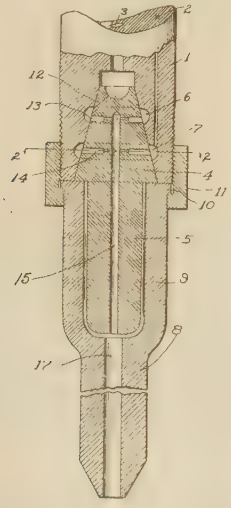
An electromagnetic lockout switch comprising a magnet frame, a pivoted armature lever, having a rigid extension on one end, mounted on said frame, a shunt holding or closing coil, a series lockout coil, armatures for said coils, a spring mounted on said rigid extension and carrying the armature for the lockout coil thereon, the other armature being mounted upon the opposite end of the pivoted armature lever which consists essentially of a rigid structure

adapted to rock on a pivot, cores for said coils mounted on the magnet frame and in the magnetic flux path, the magnetic system being such that a portion of the magnetic flux generated by the closing coil passes to the magnetic circuit of the locking out coil and acts cumulatively with



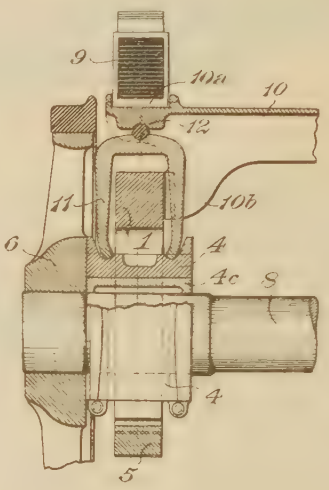
the magnetic flux generated by the locking out coil whereby fluctuations in the pull upon the pivoted armature lever exerted by the closing coil due to voltage variations are accompanied by corresponding fluctuations of the locking out pull.

1,414,454. MIXER FOR WELDING TORCHES. WILLIAM P. BROWN and GEORGE MCALPINE BRITTAIN, San Francisco, Calif. Filed June 10, 1920. Serial No. 387,851. 1 Claim. (Cl. 158—27.4.)



A burner tip for welding torches comprising a tube having two gas passages therethrough and having a frusto-conical seat with peripheral grooves at its end, a gas mixer having a frusto-conical head and a central opening extending longitudinally thereof from one end toward the other end, said head having a plurality of transverse openings in two series to lead the gas from the peripheral grooves of the frusto-conical seat to the longitudinal opening in the mixer tube, said frusto-conical head having other openings extending at an inclination to its axis to deliver gas from the central portion of the supply tube to one of its peripheral grooves surrounding its frusto-conical seat, a nozzle having a chamber to loosely receive the mixer and having an opening therethrough from said chamber to its other end larger than the opening extending longitudinally into the mixer, and means to connect the nozzle and mixing tube to the supply tube.

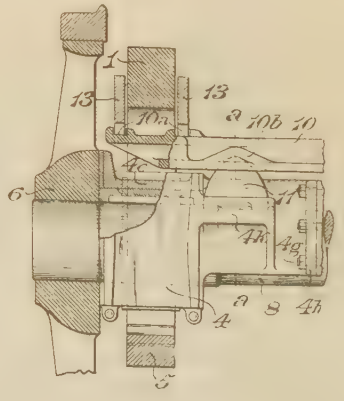
1,414,455. LATERAL-MOTION APPLIANCE FOR LOCOMOTIVE DRIVING BOXES. ALFRED W. BRUCE, New York, N. Y. Filed Aug. 18, 1921. Serial No. 493,299. 5 Claims. (Cl. 105—80.)



1. In a locomotive engine, the combination of a side frame; a driving box, fitted with the capacity of relative movement therein; a spring supporting beam, which is vertically movable relatively to the driving box; and vibratable means, interposed between the supporing beam and the driving box, for transmitting resistance from one to the other of said members, in planes on the opposite side of the frame.

2. In a locomotive engine, the combination of a side frame; a driving box, fitted, with capacity of relative movement therein; a spring supporting beam, which is vertically movable relatively to the driving box; and a rocker, extending, on opposite sides of the frame, between the supporting beam and the driving box, and bearing at two points on one of said members, and at one point on the other member.

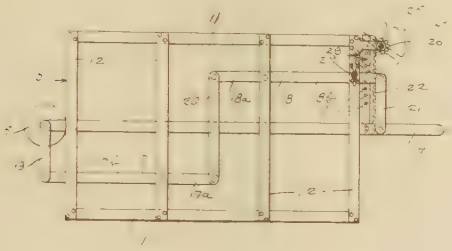
1,414,456. LATERAL-MOTION APPLIANCE FOR LOCOMOTIVE DRIVING BOXES. ALFRED W. BRUCE, New York, N. Y. Filed Aug. 18, 1921. Serial No. 493,300. 3 Claims. (Cl. 105—80.)



1. In a locomotive engine, the combination of two side frames; a continuous driving box structure, fitted, with

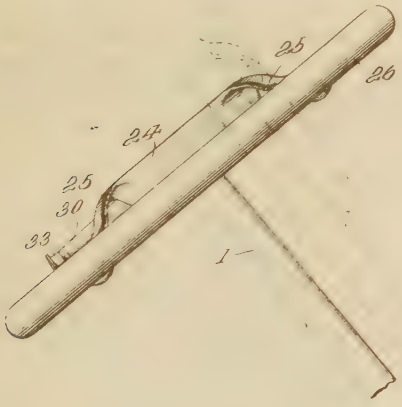
the capacity of relative transverse movement, therein; a superposed vertically movable spring and equalizer supporting beam, which extends into the spaces between the jaws of opposite pedestals of the side frames; and vibratable rockers, interposed between, and bearing on, the driving box structure and the supporting beam.

1,414,457. TRACTOR DRAWBAR. HARRY J. CASE, Potosi, Wis. Filed June 20, 1921. Serial No. 478,956. 7 Claims. (Cl. 213—67.)



1. In a tractor, a rigid supporting frame, a drawbar transversely shiftable with relation to the frame, and means connecting the frame and drawbar whereby shifting of one end of the drawbar causes shifting of the opposite end thereof in the same direction but through a different distance.

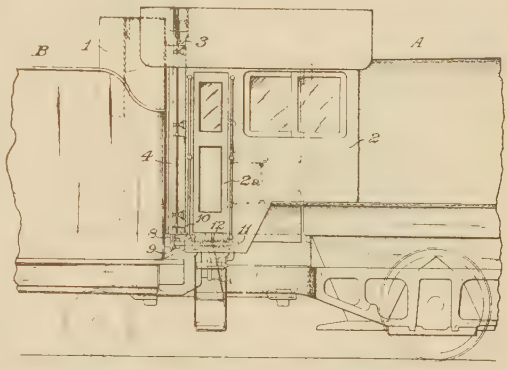
1,414,458. COMBINED TILTING AND SLIDING STEERING WHEEL. GEORGE H. COCKS, Adrian, Mich. Filed Oct. 17, 1921. Serial No. 508,173. 8 Claims. (Cl. 74—33.)



4. In steering mechanism for automobiles and the like having two members, one slidable with respect to the other, means on one of the members provided with guides, pivots carried by the other member, and blocks on said pivots over which the guides slide.

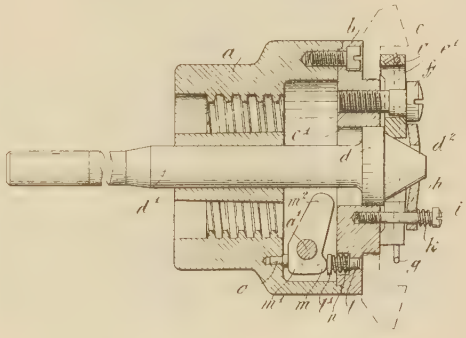
1,414,459. VESTIBULE FOR LOCOMOTIVES AND TENDERS. FRANCIS J. COLE, Schenectady, N. Y. Filed Dec. 21, 1921. Serial No. 523,882. 6 Claims. (Cl. 105—9.)

1. The combination, with a locomotive and a tender, of a cab, at the rear end of the locomotive; side doors, closing openings for access to said cab; a cab, at the front of the tender; a forward extension, secured to the tender cab and forming an enclosure for a passage way between the locomotive and tender cabs; and automatically operable means, connected to the locomotive cab, for maintaining closure of the space between said locomotive cab and said tender cab extension.



6. In a locomotive and cab vestibule structure, the combination of a plate, fixed on one of the vehicles; a plate, guided on the other vehicle to slide at an angle to the first specified plate; and a spring hinged arm, coupled to said last specified plate, and exerting pressure thereon in direction to maintain it in bearing on said first specified plate.

1,414,460. AIR-OPERATED ADAPTER. WALTER L. DIXON, New Brunswick, N. J., assignor to International Motor Company, New York, N. Y., a Corporation of Delaware. Filed Nov. 2, 1920. Serial No. 421,404. 6 Claims. (Cl. 279—2.)

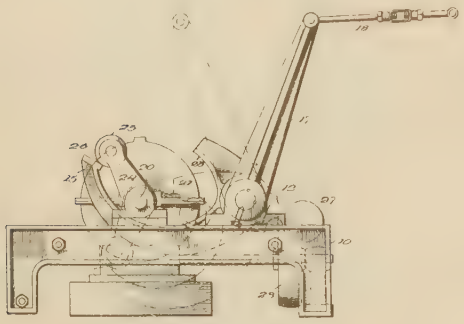


1. In combination with a supporting arbor for work, an air operated plunger reciprocable with relation to the arbor, clamping elements supported slidably on the face of the arbor and spaced from a part thereof and movable longitudinally over the face of the work which lies between the elements and the face of the arbor under the influence of said plunger, and means independent of the plunger to retract the clamping elements upon retraction of the plunger.

1,414,461. MECHANICAL MOVEMENT. HULDREICH EGLI, Baltimore, Md. Filed May 25, 1921. Serial No. 472,337. 3 Claims. (Cl. 74—14.)

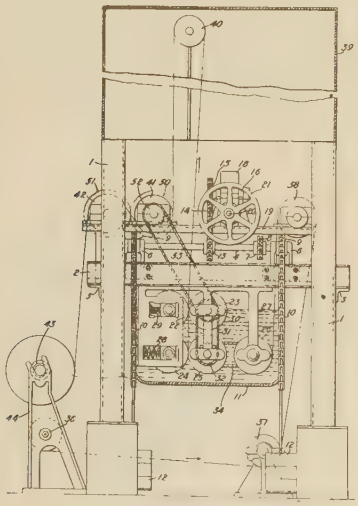
1. In a mechanical movement, the combination of an actuator, a rocker shaft, a rocker lever mounted on the shaft, a cam mounted on the shaft provided with a pair of arms projecting in the path of the actuator and

adapted to be alternately engaged by said actuator, one of said arms being of greater length than the other,



whereby the rocker lever will be moved in opposite directions at different rates of speed.

1,414,462. METHOD OF AND APPARATUS FOR IMPREGNATING MATERIAL. LOUIS T. FREDERICK, Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed May 6, 1919. Serial No. 295,192. 7 Claims. (Cl. 91—31.)

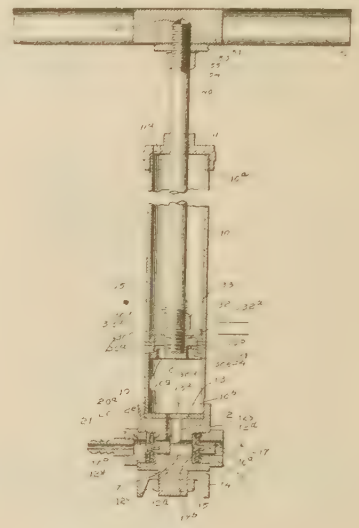


1. In an apparatus for impregnating fibrous material, means for drawing the material through a liquid impregnating agent, means for forcing the liquid into the material and means for removing excess liquid at the surface thereof.

7. A method of impregnating sheet material that comprises passing the sheet material through a bath of impregnating liquid, applying pressure to the material while it is immersed, applying additional pressure at the surface of the bath, drying the material and winding it about a receiving mandrel.

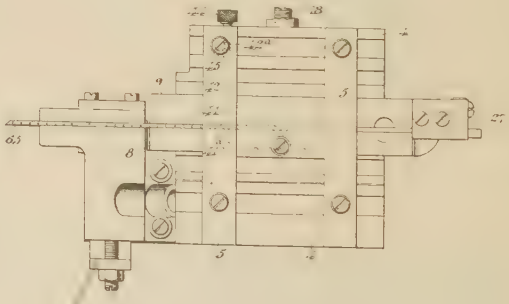
1,414,463. FLUID PUMP. PATRICK M. GRANT, Chicago, Ill. Filed Sept. 25, 1920. Serial No. 412,760. 10 Claims. (Cl. 230—27.)

1. In a pump, the combination with a pump barrel of a piston therein, a base member to which the said barrel is attached, there being a passageway in the base member communicating with the pump barrel and valve mechanism in the said passageway comprising a valve seat, a valve stem in cross section adapted to be guided



in said passageway adjacent the valve seat, a valve plate secured to the said stem, a resilient member carried by the valve plate, and means for locking the said valve plate and stem together.

1,414,464. PRINTER'S STRIP-MATERIAL MOLD. ROBERT GRAY, Glasgow, Scotland, assignor to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed July 19, 1919. Serial No. 311,933. 9 Claims. (Cl. 199—1.)

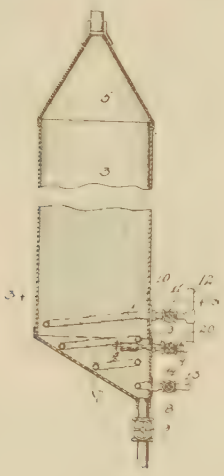


9. In the art of casting a bar of type metal, the method of casting a bar having a design upon one edge thereof and subsequently passing the bar in contact with the roller having a design on the periphery thereof for changing the design on the edge of the bar of type metal.

1,414,465. DISTILLATION PROCESS. HENRY A. HILLS, Grand Rapids, Mich. Filed May 7, 1917. Serial No. 167,017. 4 Claims. (Cl. 196—27.)

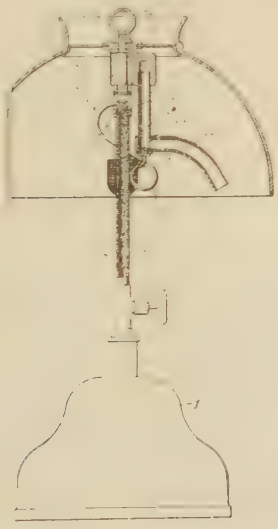
1. A distillation process including heating liquid in a still having an inclined bottom and simultaneously

propelling a part of the liquid horizontally against the inclined bottom to produce a circulation of the liquid in



a vertical plane and thereby aid in the vaporization of the latter and inhibit foaming.

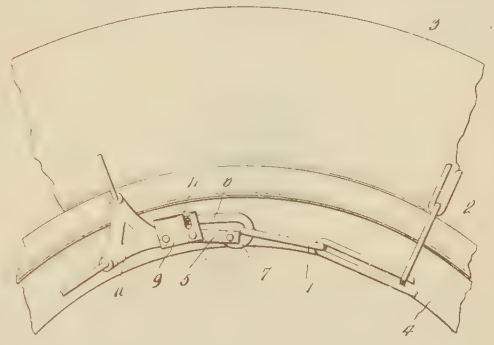
1,414,466. VAPOR LAMP. CHESTER A. HOFF and JAY C. STEESE, Akron, Ohio, assignors to The Die Sinking and Machine Company, Akron, Ohio, a Corporation of Ohio. Filed July 21, 1919. Serial No. 312,186. 5 Claims. (Cl. 67—50.)



1. In a vapor lamp, a main generator tube and an auxiliary generator tube which communicates directly with the main generator tube, a Bunsen tube with which the auxiliary generator tube communicates, a pair of burner tubes with which the Bunsen tube communicates, the said main generator tube and the auxiliary generator tube lying between the said burner tubes.

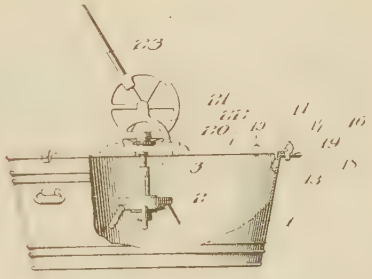
1,414,467. TIRE-CHAIN FASTENER. EDGAR S. HOGSHEAD, Mount Solon, and RODNEY C. HOGSHEAD, Gordonsville, Va. Filed Feb. 11, 1922. Serial No. 535,793. 5 Claims. (Cl. 24—241.)

1. A fastener of the character described, comprising a base, a handle pivoted to one end of said base, and a guard pivoted to the opposite end of said base and adapted to be moved over said handle to retain same



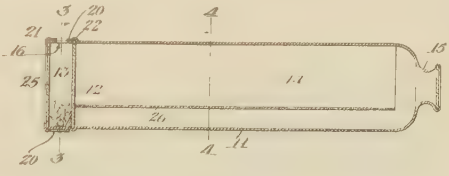
in locked position, and cooperating locking means on said handle and guard.

1,414,468. WASHING MACHINE. CHARLES W. HOTTMANN, Jr., Sandusky, Ohio, assignor to The Brown Clutch Co., Sandusky, Ohio, a Corporation of Ohio. Filed Feb. 18, 1922. Serial No. 537,430. 5 Claims. (Cl. 259—101.)



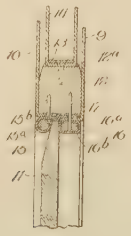
1. In a washing machine, a dolly support comprising a body portion, a gear loosely mounted thereon, a plurality of arms pivotally carried by said body portion and intergeared with said gear, and fastening devices to secure said arms with respect to a tub.

1,414,469. KALEIDOSCOPE. HERBERT E. HOUSE, Pasadena, Calif., assignor to Clarence S. Potter and Warren T. Potter, Los Angeles, Calif., partners. Filed Mar. 24, 1919. Serial No. 284,841. 1 Claim. (Cl. 88—15.)



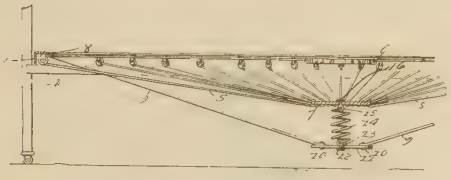
In a kaleidoscope, a tube, a translucent member closing one end of said tube and forming one wall of an object chamber, a transparent partition forming another wall of said chamber, two annular ridges on the exterior of said tube on either side of an aperture opening into said object chamber, said ridges formed by forcing the material of the tube outwardly producing grooves on the inner surface of the tube to receive the peripheries of said translucent member and partition, and a ring fitting over said tube between said ridges, said ring having an opening registering with said aperture when said ring is turned to the proper position.

1,414,470. CURTAIN-WINDOW CONSTRUCTION. BURTT J. HUBBARD, Kokomo, Ind. Filed Jan. 14, 1921. Serial No. 437,257. 6 Claims. (Cl. 296—145.)



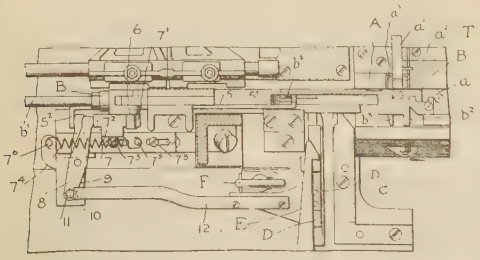
6. In combination with a curtain or the like comprising covering and lining members, a frame supported between said members adjacent an opening therein, said curtain members being inturned with respect to said frame, a welt overlying the inturned portion of one of said curtain members, the inturned portion of said other curtain member overlying a portion of said welt, a second welt overlying the inturned portion of said last mentioned curtain member, and a light element carried between said welts.

1,414,471. BEDSPRING. HARRY W. HUNTRESS, Turlock, Calif. Filed Sept. 21, 1921. Serial No. 502,155. 2 Claims. (Cl. 5—40.)



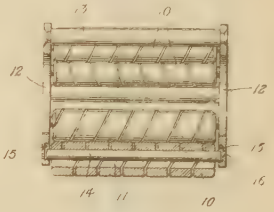
2. In a bed spring, a main bed spring frame, an auxiliary frame depending centrally therefrom, a support disposed centrally of the bed spring frame, bed spring wires connecting with and radiating from the support and being movably connected with the sides and ends of the main frame, a member connecting the other ends of the wires at a point below said support, and yieldable means connecting the center of the auxiliary frame and said member, and adapted to yield when pressure is applied upon the support and the wires connected thereto.

1,414,472. DELIVERING MECHANISM FOR TYPE-CASTING MACHINES. MAURITZ C. INDAHL, Philadelphia, Pa., assignor to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed Nov. 9, 1920. Serial No. 422,766. 5 Claims. (Cl. 199—95.)



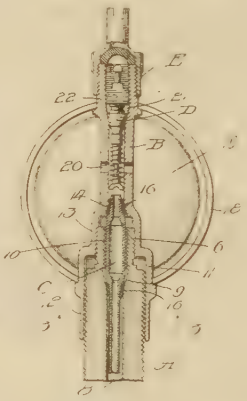
1. Type delivery mechanism comprising a supporting frame, a type carrier movable relatively to said frame, said carrier being provided with a clamping jaw movable relatively to the carrier and a lever operatively connected with said jaw, a stop for engaging with said lever to cause movement of the jaw, a slide mounted on the frame and having a projection, an abutment carried by the carrier to engage with said slide, said stop being adjustable with respect to said slide and movable in unison therewith.

1,414,473. ROLLER BEARING. ALLAN H. JONES, Belleville, and MARK G. ANTON, Newark, N. J., assignors to Circle Stamping and Mfg. Co., Belleville, N. J., a Corporation of New Jersey. Filed May 7, 1921. Serial No. 467,683. 6 Claims. (Cl. 64—62.)



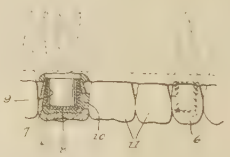
1. The herein described roller bearing comprising a cage and a series of rollers mounted loosely therein, said cage including a pair of end rings having pairs of pits formed in the opposing inner surfaces thereof, one pair for each roller, and roller-retaining means projecting loosely into and terminating in said pits.

1,414,474. PRESSURE INDICATOR. CHARLES R. KEERAN, Chicago, Ill. Filed Aug. 17, 1918. Serial No. 250,355. 9 Claims. (Cl. 116—34.)



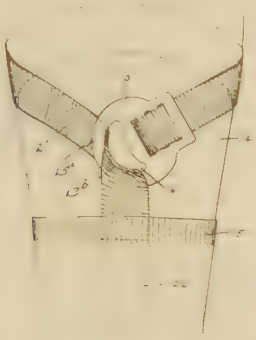
1. In combination with a fluid container having an opening from which projects a stem, a pressure indicator comprising a member fitted to the stem and maintaining communication with the interior of the container, the member being formed with walls adapted to be moved to the accompaniment of a report under the direct influence of a change in pressure within the container of predetermined amount without permitting escape of the fluid to the atmosphere, and a valve fitted to the member for preventing the escape of fluid within the container, substantially as described.

1,414,475. ARTIFICIAL TOOTH. EDWARD J. KOCHMIT, Cleveland, Ohio. Filed Nov. 2, 1921. Serial No. 512,210. 3 Claims. (Cl. 32—9.)



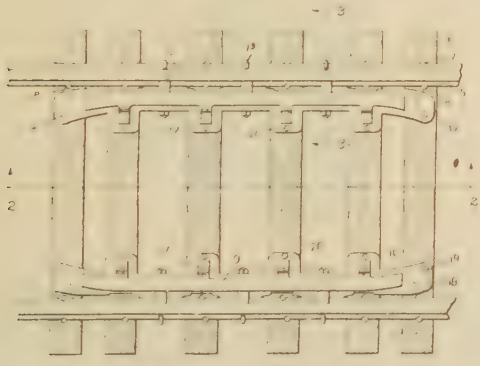
1. An artificial comprising a hollow vitreous crown, and telescoping tubes fitting within the same, one of the tubes being attached to the crown and the other to a natural tooth.

1,414,476. GARMENT SUPPORTER. HARRY W. LAKIN, Boston, Mass. Filed Jan. 28, 1921. Serial No. 440,646. 1 Claim. (Cl. 241—6.)



A hose supporter composed of a thin flexible plate, having a plurality of strip-engaging slots, a strip-guiding orifice, one end portion of the plate constituting a transverse bar having a reentrant inner edge forming the outer edge of said orifice; an elongated elastic strip threaded at one end portion through said slots and thus adjustably secured to the plate; and a hose leg-engaging device secured to the opposite end portion of the strip, and adapted to be threaded therewith through said orifice, and to depend from the outer edge thereof and engage a hose leg, the said transverse bar being joined at both end portions to the body of the plate, and thereby supported against distortion by pressure of the strip on the inner edge of the said bar when the supporter is in use, the reentrant form of said inner edge preventing the strip from slipping on the plate when the supporter is in use.

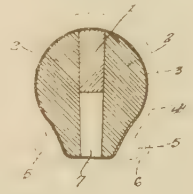
1,414,477. RAILROAD GUARD RAIL. FRANK LINDSAY, Detroit, Mich. Filed May 21, 1921. Serial No. 471,477. 4 Claims. (Cl. 238—19.)



1. A railroad guard rail integrally formed with end thrust brackets, spacing cleats, reinforcing webs in staggered relation to the spacing cleats, main rail supports, and locking bolts passing through the guard rail below the spacing cleats.

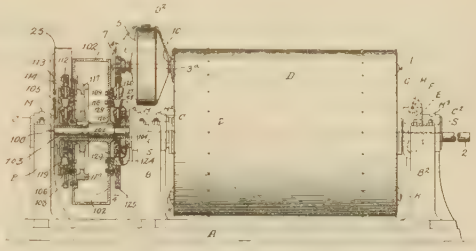
1,414,478. TIRE-CASING FILLER. WILLARD M. McEWEN, Chicago, Ill. Filed Nov. 5, 1920. Serial No. 421,838. 4 Claims. (Cl. 152—5.)

4. A tire casing filler comprising a body portion composed of three vertically arranged strips, a center strip and two side strips, all of resilient rubber and vulcanized together, the center strip having a resiliency less than the side strips and serving to support the normal load on the tire, portions of said strips along the inner edges thereof being removed, before securing the strips together and bending into annular form, by cutting a plurality of transverse notches into said strips from the inner edges thereof, to avoid compressing the material of the strips along said inner edges when bending the



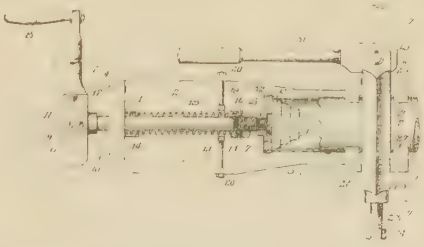
body portion into annular form, the notches in one strip being staggered with respect to the notches in the adjacent strip, and the contacting faces of the notches being vulcanized together after the body portion is in annular form.

1,414,479. POWER-TRANSMISSION MECHANISM. JAMES L. MAYS, Dallas, Tex. Filed Jan. 31, 1921. Serial No. 441,359. 16 Claims. (Cl. 74—34.)



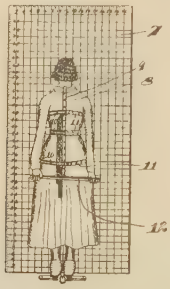
1. The combination of supports having alined bearings, a cylindrical frame having hubs, concentric therewith journaled in said bearings, power transmission mechanism within said frame, said power transmission mechanism including a prime shaft remote from an parallel with the axis of said hubs, said prime shaft projecting from the frame at one end and carrying a pinion, an initial driving mechanism journaled on an axis in line with the axis of said frame, said initial driving mechanism comprising a gear concentric with said axis and meshing with the pinion on the prime shaft; and means whereby said frame may be angularly adjusted.

1,414,480. REAMER AND BURRER. EPHRAIM A. MIDGLEY, Salt Lake City, Utah. Filed Feb. 18, 1921. Serial No. 445,996. 4 Claims. (Cl. 77—73.)



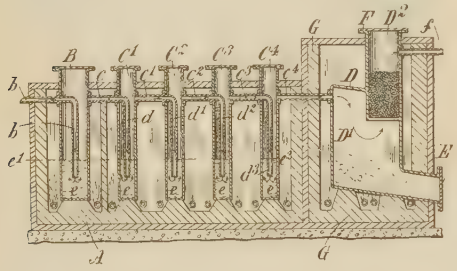
1. An instrument of the class described comprising, in combination, a frame having resilient legs carrying clamping members, a spindle rotatably and slidably mounted in said frame, a tool carried by said spindle and means carried by said resilient legs for compressing said clamping members.

1,414,481. METHOD OF TAKING PHOTOGRAPHIC MEASUREMENTS. GERHARD MOE, Eau Claire, Wis. Filed Aug. 28, 1919. Serial No. 320,507. 1 Claim. (Cl. 33—2.)



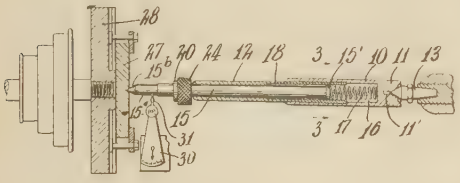
In taking photographic measurements, the method of determining the distance of the object measured from the measuring chart by positioning a measure of known length on the object measured and regulating the distance of said object relatively to the chart until said measure subtends at the point of vision its true length on said chart, substantially as described.

1,414,482. MANUFACTURE OF CARBON FOR PIGMENTAL AND OTHER PURPOSES. JOHN NELSON, Glasgow, Scotland. Filed May 7, 1921. Serial No. 467,670. 5 Claims. (Cl. 134—60.)



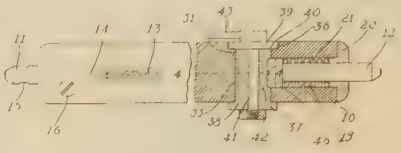
5. The process for the manufacture of refined lampblack which comprises cracking in the absence of air at a temperature between 500–700° C. a hydrocarbon which gives rise under such conditions to objectionable volatile decomposition products and collecting the finely-divided liberated carbon outside the sphere of decomposition at a temperature of about 400° C. and passing a current of innocuous gas over the hot carbon.

1,414,483. CENTERING GAUGE FOR LATHES. EMIL NOVITZKY, Detroit, Mich. Filed Apr. 16, 1921. Serial No. 461,939. 3 Claims. (Cl. 33—172.)



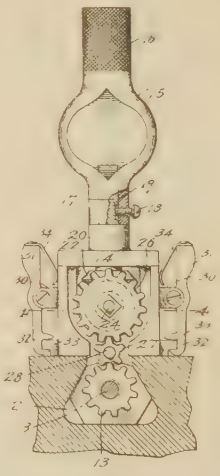
1. A centering gauge for lathes comprising a casing, a pin slidable in said casing and having a pointed end projecting therefrom, and a spring in said casing bearing against the inner end of said pin, and a collar adjustable along said pin adapted to permit free outward movement thereof but to limit the inward movement thereof and means for clamping said collar upon said pin.

1,414,484. ADJUSTABLE LIMIT GAUGE. LAWRENCE E. OLSEN, Troy, N. Y., assignor to Pratt & Whitney Company, New York, N. Y., a Corporation of New Jersey. Filed July 26, 1920. Serial No. 398,902. 10 Claims. (Cl. 33—143.)



1. A gauge for determining dimensions comprising in combination, a frame, a contact pin at one end of the frame, a contact pin at the other end of the frame and movable inward or outward with respect thereto, means for moving the movable pin comprising an element rotatable about an axis perpendicular to the said pin and having an eccentric cam surface engaging the pin, and means associated with the said moving means for limiting the said movement of the pin.

1,414,485. PLATE-CLAMP-OPERATING TOOL. OSCAR ROESEN and ISIDOR TORNBERG, New York, N. Y., assignors to R. Hoe and Co., New York, N. Y., a Corporation of New York. Original application filed Nov. 10, 1915, Serial No. 60,652. Divided and this application filed Feb. 11, 1918. Serial No. 216,473. 4 Claims. (Cl. 81—56.)

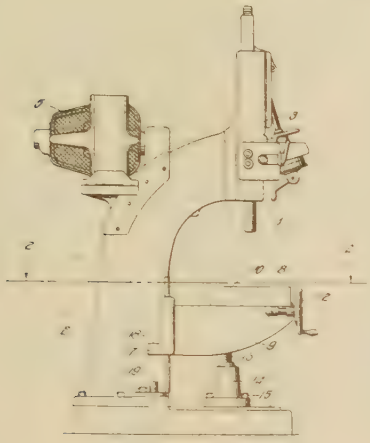


1. In a plate clamp operating tool, the combination with an enclosed casing having a beveled side, of a driver mounted in the casing, a shaft therefor, a handle for operating the shaft, driven gears mounted in the casing and operated from the driver, one of said gears co-operating with the adjusting mechanism of a plate clamp, and a positioning device projecting from the beveled side of the casing for positioning the casing with respect to a clamp.

1,414,486. DRILLING MACHINE. WILLARD T. SEARS, Montclair, and GEORGE W. JAGER, Bloomfield, N. J., assignors to Niles-Bement-Pond Company, New York, N. Y., a Corporation of New Jersey. Filed June 19, 1919. Serial No. 305,302. 14 Claims. (Cl. 77—63.)

1. The combination in a drilling machine, of a frame comprising a bed and a column, vertical guide means on the frame, a work-support having a guideway directly engaging and vertically adjustable along the guide means and guided thereby, means for adjusting the work support vertically, and means for pivoting the entire work-support, including its guideway away from the column in such a way

as to enable the work to be supported on the bed instead of on the support, the work-support being guided and supported by the guide means and the adjusting means only when in direct engagement with the guide means.

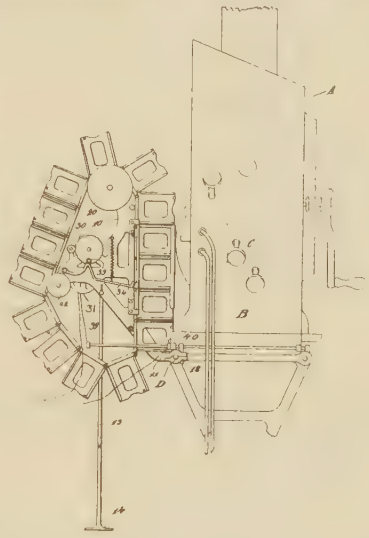


1,414,487. DRILL-TABLE MECHANISM. WILLARD T. SEARS, Montclair, N. J., assignor to Niles-Bement-Pond Company, New York, N. Y., a Corporation of New Jersey. Filed July 28, 1919. Serial No. 313,905. 17 Claims. (Cl. 77—63.)

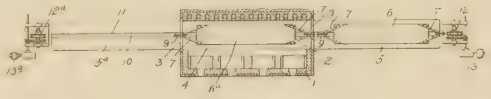
1. In a drilling machine, a work-support comprising a table, means for adjusting the table in a plurality of relatively angular directions horizontally, and a device for locking the table against horizontal adjustment, in any of the said directions, the adjusting means and the locking device being located at the front of the machine within easy reach of the operator.

1,414,488. STEREOPTICON-SLIDE CARRIER. LEWIS G. SHRYOCK, Clarendon, Ark. Filed Oct. 19, 1920. Serial No. 417,985. 4 Claims. (Cl. 88—27.)

1. A motion picture machine attachment comprising a frame, guide rods carried by the motion picture machine and slidably supporting said frame, guide rollers on said frame, a plurality of slide carriers connected in endless chain formation and trained about said rollers, electric motor operating means for driving said chain step by step, a contact element carried by said guide rod, a second contact member carried by the frame, said contact being interposed in circuit with a source of current and with said electric motor, whereby when said frame is shifted to bring the slide carriers in registration with the condenser lens of the motion picture machine the engagement of said contact will cause completion of the circuit for energizing the motor.

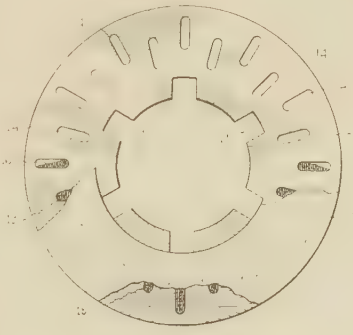


1,414,489. ANNEALING AND OTHER FURNACE. RALPH C. STIEFEL, Ellwood City, Pa. Filed Mar. 26, 1919. Serial No. 285,285. 3 Claims. (Cl. 214—18.)



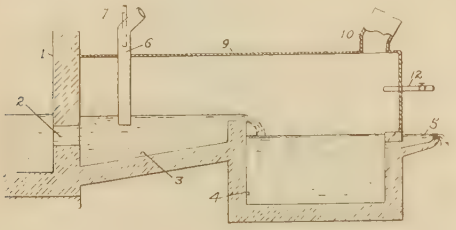
1. In combination with a heating furnace provided with openings in opposite ends thereof, of a table immediately adjacent each end of the furnace on a level with the bottom thereof, a pair of connected work carriers movable on said tables and on the furnace bottom, and mechanism for drawing said work carriers simultaneously and alternately in opposite directions, said work carriers being spaced apart, and each having a total length less than the length of the furnace whereby when either thereof is in the furnace the other one is entirely outside the furnace on one of the tables for loading and unloading.

1,414,490. FRICTION-CLUTCH MEMBER. GUY D. TRESSLAR, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a Corporation of Delaware. Filed Apr. 3, 1918. Serial No. 226,356. 12 Claims. (Cl. 192—107.)



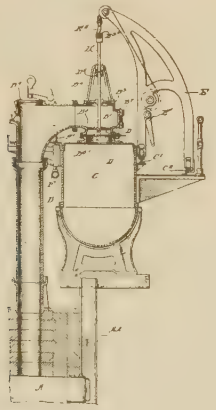
12. A friction surface member comprising a metal core piece perforated at intervals and friction facing molded thereto and vulcanized.

1,414,491. METHOD FOR THE RECOVERY OF METALLIC VALUES FROM SLAG. HARRY V. WELCH, Los Angeles, Calif., assignor to International Precipitation Company, Los Angeles, Calif., a Corporation of California. Filed Sept. 7, 1920. Serial No. 408,636. 10 Claims. (Cl. 75—17.)



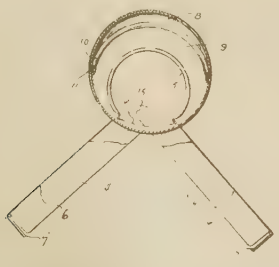
1. The process which consists in bringing a molten metallurgical slag in contact with a halidizing agent at sufficiently high temperature in the presence of an oxidizing atmosphere to cause volatilization of metallic values of the slag in the form of halide compounds, and collecting the compounds so volatilized.

1,414,492. STANDPIPE CONNECTION. LOUIS WILPUTTE, New Rochelle, N. Y., assignor of two-thirds to Alice A. Wilputte, New Rochelle, N. Y. Filed Jan. 19, 1920. Serial No. 352,529. 8 Claims. (Cl. 48—172.)



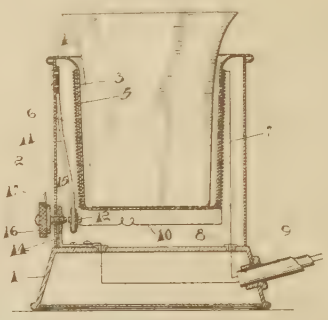
1. The combination with a collecting main having an inlet port of a valve movable through said port and substantially closing the port when in the latter and a mounting for said valve permitting its movement between an open position in which the valve is located within the main and a closed position in which the valve is located in said port.

1,414,493. RIDGE-ROLL FINIAL. MICHAEL ALBERT, Milwaukee, Wis., assignor to Milwaukee Corrugating Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Sept. 16, 1920. Serial No. 410,715. 3 Claims. (Cl. 108—24.)



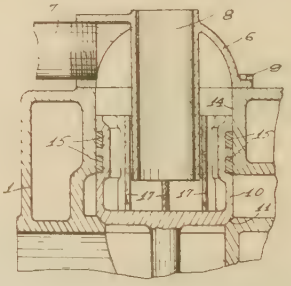
3. A device of the class described comprising a head member provided with a substantially circular opening a portion of the edge of which is cut away to form a recess, the remaining portions of said edge being inturned to form a bead; and a roll portion having an end engaging said opening and flared outwardly to intimately contact with said bead, said roll portion being also provided with a plurality of tongues adapted to enter said recess and engage the sides thereof to lock the parts together against relative rotary movement.

1,414,494. ELECTRIC WATER HEATER. FREDERICK SAMUEL ARNTFIELD, Toronto, Ontario, Canada. Filed May 17, 1921. Serial No. 470,820. 7 Claims. (Cl. 219—38.)



1. An electric liquid heater comprising a base; an external casing supported on the base; a metal shell forming a receptacle open at its upper end and supported on the casing; an insulating sleeve surrounding the outer surface of the receptacle; and a resistance wire wound on said sleeve.

1,414,495. POPPET VALVE. CHESTER T. BANGS, Chicago, Ill. Filed Mar. 8, 1920. Serial No. 364,088. 5 Claims. (Cl. 123—177.)

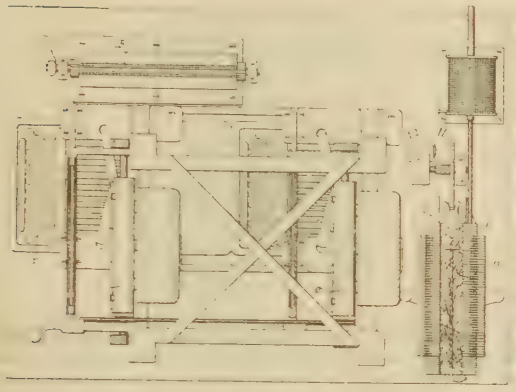


1. In an internal combustion engine, a poppet valve, a hollow cylinder integral therewith, an engine block having a cylindrical way in which said cylinder slides, a tube mounted on the engine block, open to the atmosphere, extending into the interior of said hollow cylinder and concentric therewith, and longitudinal fins on the interior surface of said cylinder extending radially nearly to said tube.

1,414,496. CRYPTOGRAPHIC TYPEWRITER. PETER GEORG GROVE BEYER, Challattenlund, Denmark. Filed Aug. 12, 1920. Serial No. 403,123. 5 Claims. (Cl. 197—4.)

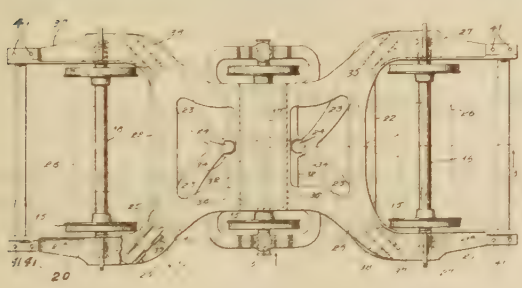
1. A cryptographic apparatus, comprising, in combination, a primary typewriter and a secondary typewriter, said typewriters being adapted for synchronous operation, the primary typewriter being adapted to be manually operated, electrically operated means between said typewriters, and operable on the operation of said primary

typewriter for operating the secondary typewriter, and means operated by said primary typewriter for irregu-



larly and arbitrarily selecting the typebar of the secondary typewriter to be operated on the operation of the primary typewriter.

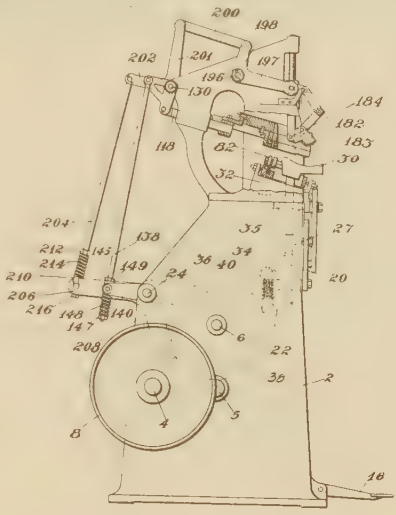
1,414,497. RAILWAY CAR TRUCK. GEORGE A. BOYDEN, Jr., and JOHN C. BOYDEN, Baltimore, Md. Filed June 23, 1920. Serial No. 391,169. 11 Claims. (Cl. 105—166.)



1. In a six wheel truck, the combination with a bolster for each axle, a pivotal connection between the central bolster and each of the pilot and trailer bolsters, a coordinating plate having a transverse sliding connection with the central bolster and a longitudinal sliding connection with each of the pilot and trailer bolsters and a car body bolted to said coordinating plate.

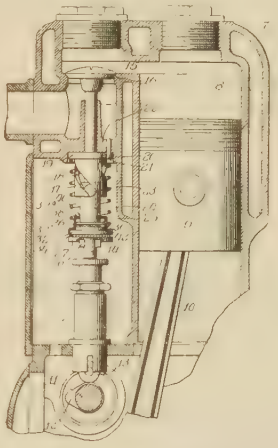
1,414,498. UPPER-SHAPING MACHINE. MATTHIAS BROCK, Boston, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed May 4, 1918. Serial No. 232,525. 74 Claims. (Cl. 12—97.)

1. A machine of the class described having, in combination, means for confining the margin of the forepart of a shoe upper, a former projecting above the confining means and arranged for movement to engage the unconfined portion of the upper to stretch it, and means movable relatively to the former prior to movement of the former for holding the upper at the end of the toe and causing it to be brought down over the end of the former without drawing back or foreshortening prior to



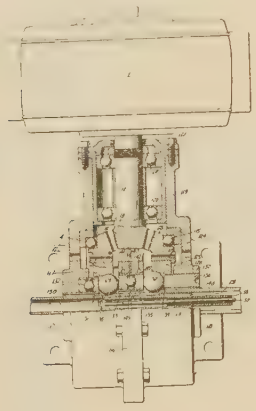
its being engaged by the confining means so as to cause the upper to be humped over the former.

1,414,499. VALVE-ROTATING DEVICE. WILMER G. BUCK, Fremont, Nebr., assignor to Continental Engineering Corporation, Omaha, Nebr., a Corporation of Nebraska. Filed June 5, 1918. Serial No. 238,275. 7 Claims. (Cl. 123—90.)



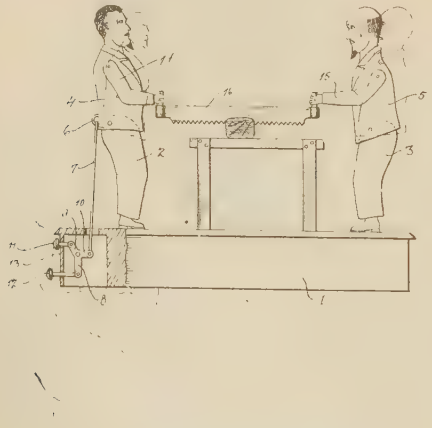
1. In a device of the class described, the combination of a reciprocating valve stem having a valve member thereon, a sleeve loosely mounted on the stem, a collar connected to the stem, co-operating clutch surfaces on the adjoining ends of the collar and sleeve, means carried by the collar and engaging said sleeve, said means permitting of a slight separating movement between the aforesaid clutch surfaces, means for imparting an oscillating rotative movement to said sleeve as it is moved up and down, said clutch surfaces engaging upon upward movement of the parts, whereby rotative movement is transmitted from said sleeve through said collar and to the valve stem, a spring exerting a pressure on said collar to separate said clutch surfaces when the valve is moved downward, whereby no rotative movement is imparted to the valve stem on its downward movement, and said means carried by said collar engaging said sleeve to move it downward after said clutch connection is broken, substantially as described.

1,414,500. METAL-DRAWING APPARATUS. LOUIS H. BRINKMAN, Glen Ridge, N. J., assignor, by mesne assignments, to General Seamless Tube Company, Bloomfield, N. J., a Corporation of Delaware. Filed Nov. 16, 1916. Serial No. 131,631. 2 Claims. (Cl. 80—12.)



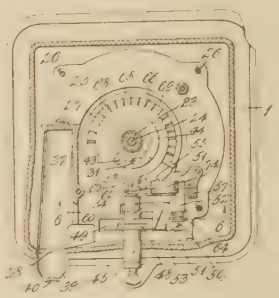
2. In a metal drawing apparatus, the combination with a die having a casing, a plurality of series of balls mounted therein, means for supporting said series comprising rotatable rings, gearing for rotating said rings in opposite directions, passages in the casing for receiving cooling fluid and having openings for introducing the fluid to the balls, there being passages through which the fluid is forced outwardly from the balls to the casing by centrifugal action without coming in contact with the metal being drawn, and means for drawing the metal through the die.

1,414,501. FIGURE TOY. WILLIAM BUORNAT, Utica, N. Y. Filed June 18, 1921. Serial No. 478,508. 1 Claim. (Cl. 46—40.)



A device of the class described comprising a base, a compartment near the edge of said base, a figure of a person on said base having the body thereof pivotally attached to the leg, said leg being rigid with said base, an eyelet in said body, a rod pivotally attached to said eyelet, said rod extending into said compartment, a three-armed crank pivotally mounted in said compartment, buttons slidably mounted in the outer wall of said compartment and having pivotal engagement with two of the arms of said crank, said rod being pivotally connected with the third of said arms.

1,414,502. COIN-CONTROLLED VENDING MACHINE. FRANCIS M. CASE, Cleveland, Ohio, assignor to The Shelby Supply and Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 13, 1917. Serial No. 201,739. 22 Claims. (Cl. 194—63.)

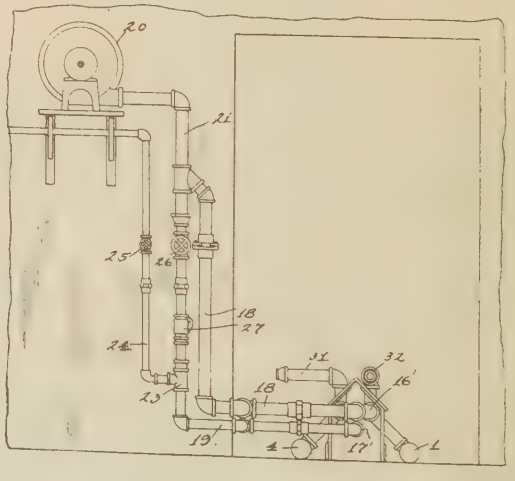


1. Apparatus of the class described, comprising a load moving device oscillatable about a center and provided with a series of pockets nonsymmetrically disposed about said center, and actuating means therefor controllable by coins of different denominations and adapted when operated to produce varying movement of said device in one direction from a definite normal position to thereby advance to the delivery point a number of loads corresponding to the value of the coin.

5. Apparatus of the class described, comprising a load transferring member oscillatable about a center and provided with a plurality of load receiving pockets nonsymmetrically disposed about said center, rack devices including a pawl for normally preventing rotation of said member in one direction, a series of stops cooperating with said pawl and adapted to limit movement of said member in the ejecting direction, and coin controlled means for actuating said member and adapted to vary the setting of said pawl according to the value of the operating coin to thereby cause said pawl to engage the proper one of said stop devices.

1,414,503. [WITHDRAWN.]

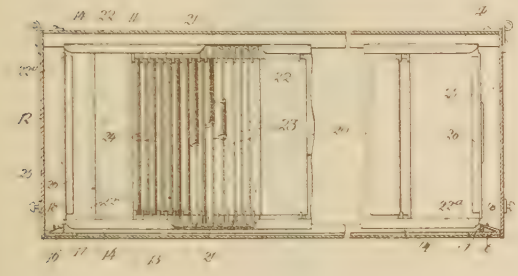
1,414,504. APPARATUS FOR SMOKING AND CURING MEAT. THEODORE G. CRANE, Chicago, Ill., assignor to Airoblast Corporation, a Corporation of New York. Filed Dec. 17, 1920. Serial No. 431,418. 8 Claims. (Cl. 99—2.)



3. A meat smoking apparatus comprising a perforated ignition pipe adapted to be buried in a mass of smoke producing material, a heat conducting and air

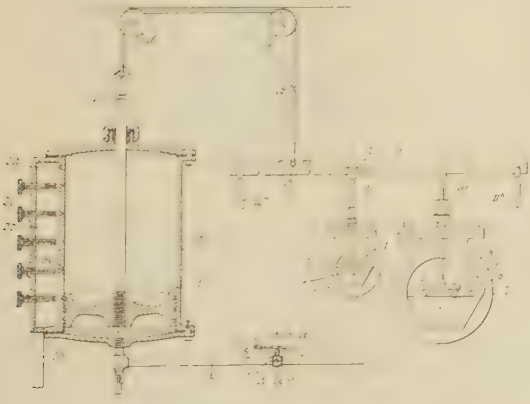
supplying pipe coupled thereto, a gas jet pipe for heating said heat and air supplying pipe, and means for supplying gas to said jet pipe and air to said heat and air supplying pipe for the purpose described.

1,414,505. DOUBLE-ENDED FILING CABINET. ALLSWORTH ST. CLAIR-EDE, Dubuque, Iowa. Filed May 16, 1921. Serial No. 470,048. 4 Claims. (Cl. 45—2.)



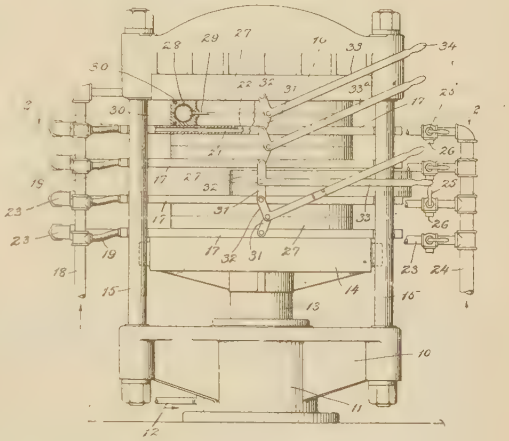
2. In filing cabinets, the combination of a cabinet, an upper and a lower guide rail within the cabinet in spaced relation with one another, a double faced filing case slidable between the guide rails and provided in each edge with a channel embracing the proximate guide rail, the case being formed of two sections of sheet metal secured together back to back, and each having sides extending at an angle to the back, and having the marginal edges of the sides outwardly and reversely turned to furnish card holder guides, the combined formation furnishing along each edge of the case the channel which embraces the adjacent guide rail, and card holders slidably mounted within the card holder channels, substantially as described.

1,414,506. STEAM-PRESSURE-REGULATING MECHANISM. WILLIAM B. FULTON, Middletown, Ohio. Filed May 21, 1921. Serial No. 471,362. 2 Claims. (Cl. 236—17.)



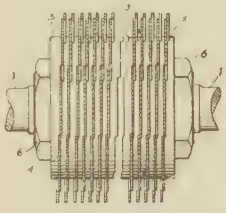
1. In an apparatus of the class described, the combination, with a steam inlet valve, a steam outlet valve, and a lever to which they are connected, of a cylinder, a piston therein, its piston rod, a connection between the rod and said lever, a steam pipe connected with said cylinder beneath said piston through which steam may enter to actuate the piston and one or more valve ports and stems in the cylinder wall adapted to permit the escape of steam at points on the pressure side of the piston.

1,414,507. VULCANIZING APPARATUS. JOHN R. GAMMETER, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York. Filed Jan. 30, 1922. Serial No. 532,598. 17 Claims. (Cl. 18—17.)



1. In a press, the combination of a pair of press members, means for yieldingly forcing said members together, and positive means acting counter to the pressure of said forcing means for separating said members.

1,414,508. FIBER-SEPARATING DEVICE. JAMES C. GARNER, Houston, Tex., assignor, by mesne assignments, to The Garner Gin Company, Inc., Houston, Tex., a Corporation of Texas. Filed Feb. 3, 1920. Serial No. 355,929. 14 Claims. (Cl. 19—97.)

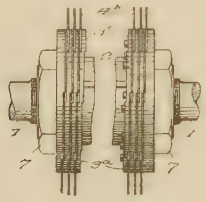


1. A toothed drum of the class described having an axially arranged series of sets of saw sections, each set extending continuously around the axis, and comprising a section rotatable in a central transverse plane, a plurality of supplemental sections rotatable respectively in planes at one side of said central plane, and a plurality of supplemental sections rotatable respectively in transverse planes at the other side of the said central plane all of said parts being held in fixed relation to each other.

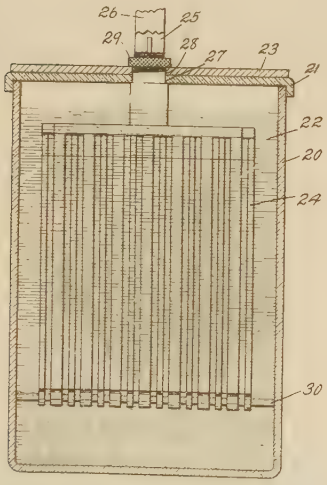
1,414,509. FIBER-SEPARATING DEVICE. JAMES C. GARNER, Houston, Tex., assignor, by mesne assignments, to The Garner Gin Company, Inc., Houston, Tex., a Corporation of Texas. Filed Feb. 3, 1920, Serial No. 355,935. Renewed Jan. 18, 1922. Serial No. 530,231. 1 Claim. (Cl. 19—97.)

A toothed drum of the class described, having a central rotary holder, an axial series of axially movable ring-like spacing devices each having on each of its faces a circular series of radially positioned flat faced seats in

axially stepped relation to each other, a circular series of lugs respectively projecting axially from the faces of said seats and a circular series of sockets on the opposite faces of the said spacer rings and respectively opposite to the said lugs, and a series of sets of peripherally short saw sections each provided with perforations to receive lugs such as aforesaid, and said sections being positioned in axially stepped relation to each other and independently held by said lugs against radial displacement.



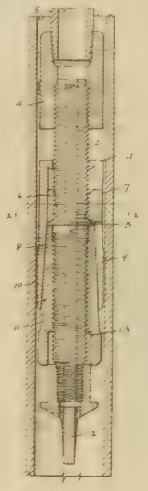
1,414,510. STORAGE BATTERY. RALPH H. GRANT, Dayton, Ohio, assignor, by mesne assignments, to Delco-Light Company, Dayton, Ohio, a Corporation of Delaware. Filed Sept. 9, 1918. Serial No. 253,134. 5 Claims. (Cl. 204—29.)



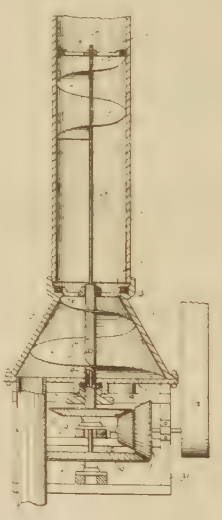
1. In a battery, the combination with a container for electrolyte; of a cover for the container; a support removably mounted on said cover; and a set of battery plates mounted on the support.

1,414,511. SPEAR. ELLSWORTH GRAY, Humble, Tex. Filed Apr. 14, 1921. Serial No. 461,363. 6 Claims. (Cl. 294—102.)

1. A spear including an actuating shaft, a string to the lower end of which said shaft is attached, the upper and lower sections of said shaft being reversely threaded, a nut threaded onto the upper threaded section, an expansible jaw fitted over said shaft and nut and whose upper end has an inwardly extending shoulder, means for preventing the relative rotation of said nut and jaw, a tapering sleeve threaded onto the lower threaded section of said shaft and adapted to wedge between said shaft and jaw to expand the latter, and a head carried by the lower end of the shaft.



1,414,512. ROTARY PUMP. EDGAR B. HOOVER, Pasco, Wash. Filed Feb. 5, 1921. Serial No. 442,608. 3 Claims. (Cl. 253—178.)

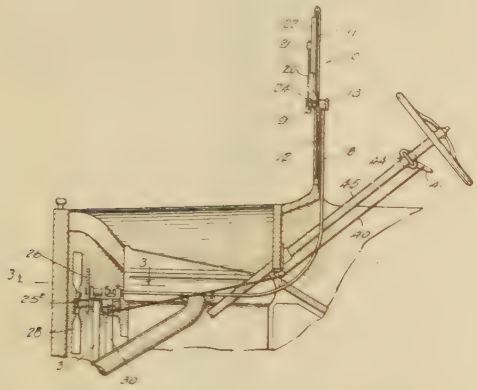


1. In a rotary pump, the combination of a conical shaped cylinder, a conical shaped conveyor within said cylinder, a discharge pipe in prolongation of and attached to said cylinder, a conveyor within said discharge pipe, a means for rotating said conveyors in opposite directions on a hollow and solid shaft respectively, a means for forming an airtight journal in said hollow shaft to prevent the ingress of air to said cylinder, a means for journalling said conveyors against the side walls of said cylinder and discharge pipe, and foot bearings supporting said shafts.

1,414,513. ATTACHMENT FOR MOTOR VEHICLES. HENRY HUEBER, Seattle, Wash., assignor of one-half to Casper J. Cassutt, Seattle, Wash. Filed Feb. 24, 1921. Serial No. 447,571. 2 Claims. (Cl. 74—26.)

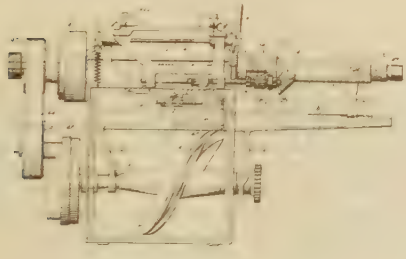
1. In apparatus of the character described, the combination with the hub of an automobile air-fan, means to

rotate the same, of a wheel, a spring yieldingly retaining said wheel in frictional engagement with the hub of said air-fan, means operable from the driver's seat in the



automobile for disengaging said wheel from said hub, a flexible shaft connected at one of its ends to said wheel and means operated by the other end of the flexible shaft.

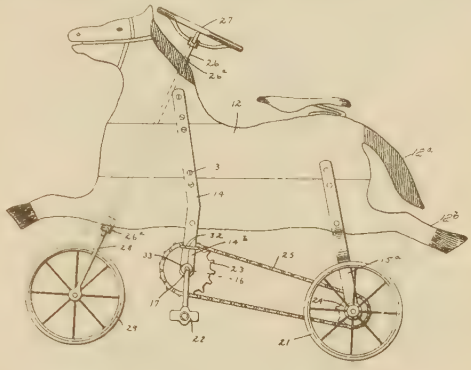
1,414,514. UNIVERSAL WINDER HEAD. HENRY G. JOHNSON, East Hampton, Conn., assignor to Summit Thread Company, East Hampton, Conn., a Corporation of Maine. Filed Mar. 3, 1921. Serial No. 449,579. 9 Claims. (Cl. 242—43.)



1. In a winding machine of the character described, a rotary spool having a single head, a traversing thread-guide, and means controlled by the distance of the guide from the axis of the spool for automatically effecting a gradual shifting of the relative positions of the spool and thread-guide in the direction of the axis of the spool to wind the layers successively away from the headless end of the spool.

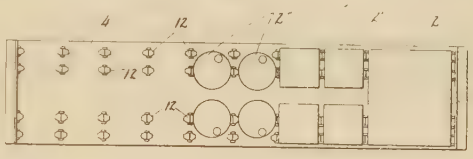
1,414,515. CHILD'S VEHICLE. JACKSON F. JOHNSTONE, Boston, and DAVID A. JOHNSTON, Melrose, Mass. Filed June 15, 1921. Serial No. 477,674. 1 Claim. (Cl. 208—42.)

In a child's vehicle of the character stated, a frame comprising a flat-sided body, composed of a plurality of sections, the meeting edges of which extend lengthwise of the body, a pair of forward reinforcing bars, and a pair of rear reinforcing bars, said bars including shank portions seated on the flat sides of the body, extending across the said meeting edges, and attached to the sections, at opposite sides of the meeting edges, and downwardly pro-



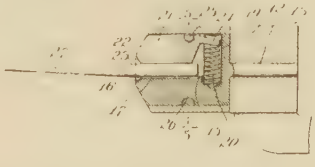
jecting end portions, provided with crank-shaft and rear-axle bearings.

1,414,516. SYSTEM OF TRANSPORTATION. HENRY W. KIRCHNER, St. Louis, Mo. Filed Dec. 15, 1920. Serial No. 430,902. 5 Claims. (Cl. 105—366.)



5. The combination of a carrier, fastening devices, and containers in the form of units and a multiple thereof designed to be supported by said carrier and to interchangeably co-operate with said fastening devices.

1,414,517. NEEDLE HOLDER FOR SOUND-REPRODUCING MACHINES. ERNEST C. KUEHL, Chicago, Ill., assignor of one-half to Herbert C. Lust, Chicago, Ill. Filed Jan. 10, 1921. Serial No. 436,130. 3 Claims. (Cl. 279—78.)

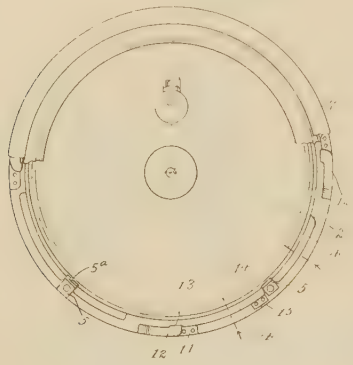


1. A needle-holder for sound reproducing machines comprising a cylindrical body and tubular sleeve forming a permanent casing, the body having an axial bore and kerf, a cross-bore at the base of the kerf, and an opposite pair of seats at the sides of the kerf, a spring in the cross-bore, a lever in the kerf having a pintle held in the seats by the sleeve, the opposite portions of the lever being arranged at an obtuse angle forming a jaw to engage the needle and a finger compressing the spring.

1,414,518. LAMP. NEIL MACNEALE, Cincinnati, Ohio, assignor to The Corcoran Victor Company, Cincinnati, Ohio, a Corporation of Ohio. Filed June 19, 1919. Serial No. 305,242. 4 Claims. (Cl. 240—41.)

1. In a lamp, the combination with a flanged lamp body and a rim, of tongues on the rim and body to engage

each other upon twisting of the rim, the body tongues mounted on the flange and extending outwardly from the same, said tongues having a conformation to bring the rim firmly down upon the body upon said twisting en-



gagement, and said tongues being positioned to extend in and engage on a line radial to the axis of the lamp and outwardly from the flange of the lamp body, for the purpose described.

1,414,519. SUCKER-ROD ELEVATOR. CHILTON M. MARSHALL, Oakdale, La., assignor of one-half to R. E. Powell, Elton, La. Filed Sept. 2, 1920. Serial No. 407,725. 2 Claims. (Cl. 294—91.)

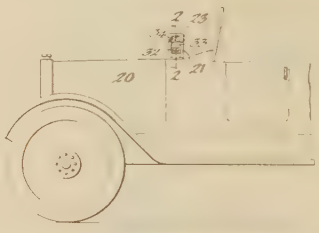
1. An elevator including a suspending fork, formed with prongs at one end, a link having a swivelling connection with the other end of the fork, an arcuate jaw secured between said prongs, one arm of which has a bearing, a lock pin slidable through said bearing, a lever secured to one arm of said fork normally holding the pin projected across said jaw to lock the same in engagement with a rod, said lever being manually operable to withdraw the pin to permit the disengagement of the jaw from said rod.

1,414,520. LATHE TURNING TOOL. TREVILLIE OWEN MARTIN, Jackson, Tenn. Filed June 5, 1920. Serial No. 386,856. 1 Claim. (Cl. 29—95.)

A turning tool comprising a shank having two diametrically opposite grooves formed spirally therein and providing intervening lands, one of the lands at one end of the shank being formed with a flat face inclined downwardly from the extremity of the shank toward the axis thereof, the shank at its said end being rounded transversely at the opposite sides and front of the flattened

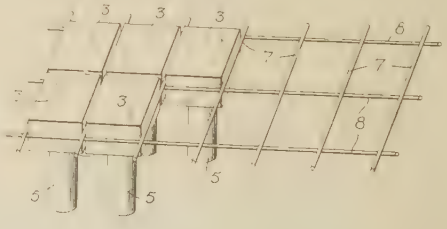
surface, and the ends of the grooves extending into the rounded sides and terminating short of the rounded front.

1,414,521. THEFT DETECTOR FOR AUTOMOBILES. JOSEPH J. MICHALSKI, Buffalo, N. Y. Filed Aug. 8, 1921. Serial No. 490,786. 14 Claims. (Cl. 40—65.)



3. A theft detector for automobiles and the like, comprising a characteristic ground, and indicating means movable into and out of operative position relatively to said ground, a portion of said indicating means being of the same characteristic nature as said ground and indicating the owner's absence from the automobile, and the other portion of said indicating means being of a different characteristic nature from said ground, and indicating the owner's presence in the automobile.

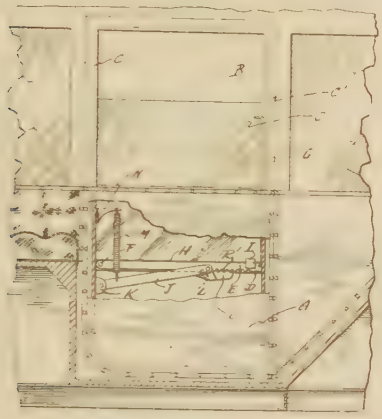
1,414,522. MAGNETIC CHUCK AND METHOD OF MAKING THE SAME. RALPH L. MORGAN, Worcester, Mass., assignor, by mesne assignments, to Greenfield Tap and Die Corporation, Greenfield, Mass., a Corporation of Massachusetts. Filed May 15, 1918. Serial No. 234,738. 9 Claims. (Cl. 175—367.)



1. The herein described method of making a magnetic chuck face which consists in employing an open-work of

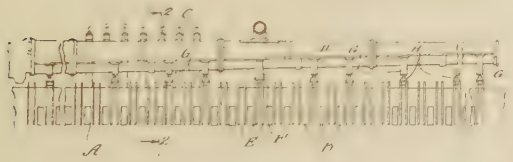
non-magnetic material, inserting pole pieces in the spaces provided in said open-work, and filling the spaces remaining between said pole pieces with molten non-magnetic material.

1,414,523. VEHICLE WINDOW-CONTROL MECHANISM. STANLEY W. NICHOLSON, Toledo, Ohio, assignor to Dura Mechanical Hardware Company, Toledo, Ohio, a Corporation of Delaware. Filed July 17, 1920. Serial No. 397,009. 18 Claims. (Cl. 292—195.)



1. In a window control mechanism, the combination with a sliding window, of a rack bar carried by said window extending transversely of the direction in which the window is slidable, a detent for engaging said rack bar, means for shifting said detent longitudinally of the bar upon sliding movement of the window, and means automatically releasing the detent from the rack bar upon actuation of the window.

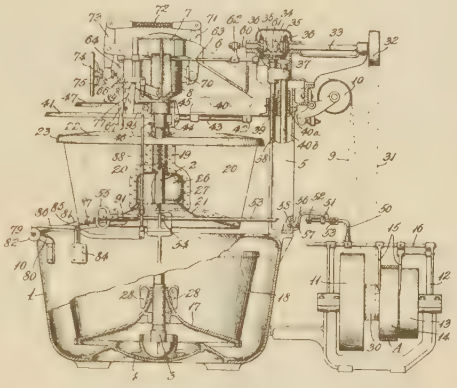
1,414,524. COLLECTING MAIN FOR BY-PRODUCT COKE OVENS. WILLIAM H. PAVITT, Jr., Brooklyn, N. Y., assignor of one-third to Louis Wilputte and two-thirds to Alice A. Wilputte, New Rochelle, N. Y. Filed Jan. 19, 1920. Serial No. 352,478. 3 Claims. (Cl. 202—9.)



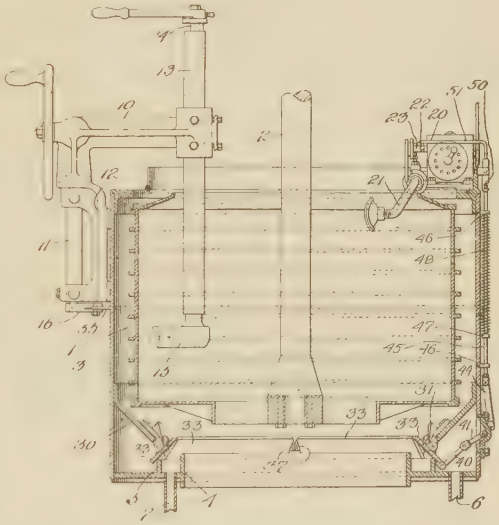
1. In a by-product coke oven battery, the combination with the oven structure of a collecting main anchored adjacent its center to said structure, and supports for the end portions of the main, comprising provisions adapted to yield to accommodate the elongation and contraction in the length of the main, and twisting movements of the main, resulting from the temperature changes to which the main is subjected.

1,414,525. CENTRIFUGAL EXTRACTOR. SYDNEY PRESTWICH, Cincinnati, Ohio, assignor to The American Laundry Machinery Company, Norwood, Ohio, a Corporation of Ohio. Filed Oct. 16, 1917. Serial No. 196,825. 25 Claims. (Cl. 210—74.)

1. An extractor, comprising a rotatable basket having a vertically movable load dividing cage member, and means governed by the rotation of said basket for preventing upward movement of said cage member when the basket is rotating.



1,414,526. CENTRIFUGAL APPARATUS. EUGENE ROBERTS, Salt Lake City, Utah, assignor to The Western States Machine Company, Salt Lake City, Utah, a Corporation of Utah. Filed Nov. 19, 1920. Serial No. 425,232. 14 Claims. Cl. 210—67.)

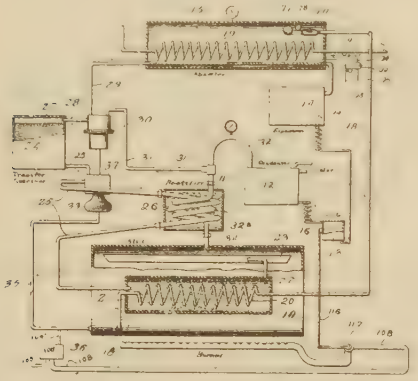


1. In a centrifugal machine embracing a perforated centrifugal basket and an encircling casing having an annular bottom for receiving the centrifugally expelled liquid, the combination with a partition dividing the annular bottom of the casing into inner and outer collecting troughs, a series of liquid-deflector members pivotally mounted between said partition and the bottom of the basket, and means for shifting said deflecting members angularly to direct the expelled liquid from the basket to one or the other of said troughs, substantially as described.

1,414,527. AUTOMATIC CONTINUOUS REFRIGERATOR. RALPH E. SCHURTZ, Alamogordo, N. Mex. Filed May 16, 1916. Serial No. 97,927. 18 Claims. (Cl. 62—5.)

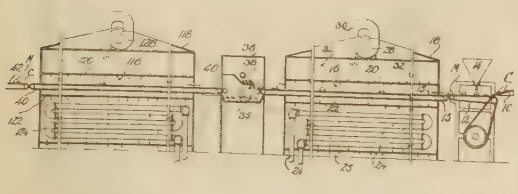
8. In a system of the character described, a still, an absorber, a connecting conduit including an interme-

diate receiver, a valve device in the conduit including a pressure operated element having a reciprocable part, a thermostatic device in the still operatively associated with the pressure operated element, for movement of the reciprocating part in one direction under effect of high temperature in the still, yielding means to oppose movement of the reciprocating part, an outlet connection from the absorber to the receiver, two valves on the reciprocating member, a valve seat in said conduit be-



tween the absorber and receiver positioned to be engaged by one valve under operation of the thermostatic device, a connection between the gas circuit of the system and the said conduit having a terminal port formed with a seat facing to be engaged by the other of said valves alternately with engagement of the first named valve and seat, and a check in the conduit between the valve device and the still.

1,414,528. PROCESS AND APPARATUS FOR CONFECTION MAKING. RAYMOND S. SCOTT, Denver, Colo. Filed Jan. 31, 1921. Serial No. 441,178. 23 Claims. (Cl. 107—54.)

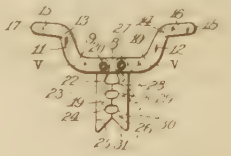


1. A process for handling biscuits having a deposit of marshmallow or like substance, which comprises rapidly drying the surface of the deposit whereby a "skin" is formed.

19. A process for making fancy coated biscuits comprising making a deposit of soft substance such as marshmallow and subjecting the same to a temperature capable of quickly setting the surface of the deposit, thereby forming a "skin" capable of receiving a coating of a heated substance without appreciable change in the form of the deposit, then coating said deposit with said heated substance, and then chilling the coated deposit to set the coat.

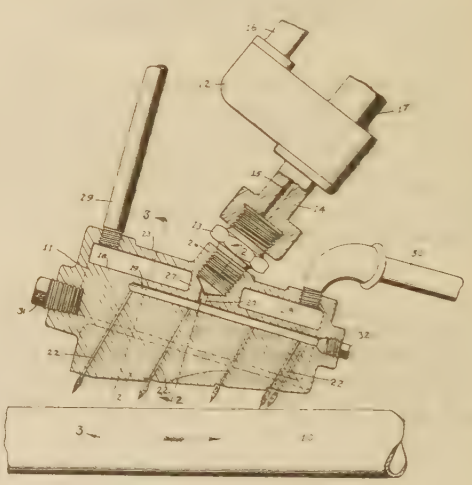
1,414,529. NECKTIE FORMER AND HOLDER. BURR R. SKINNER, Aberdeen, S. Dak., assignor of one-half to Robert Liebrich, Indianapolis, Ind. Filed Oct. 30, 1920. Serial No. 420,699. 2 Claims. (Cl. 2—84.)

1. A neck-tie former and holder comprising a head-bar having a lock-bar fixed thereon and a lock-bar pivoted thereto, the lock-bars normally extending from the lower edge of the head-bar at right angles thereto and having each a plurality of notches in the inner or adjacent edges



thereof, and two curved arms on opposite ends respectively of the head-bar extending upwardly beyond the upper edge thereof and outwardly each away from the other.

1,414,530. WELDING APPARATUS. FRANK L. SLIFE, Cleveland, Ohio, assignor to The Elyria Iron & Steel Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 22, 1919. Serial No. 284,407. 10 Claims. (Cl. 158—27.4.)



1. In apparatus of the class described, the combination with a supporting member having a gas mixing chamber, a plurality of gas supply connections and an outlet from the mixing chamber, of a jacketed tip detachably connected with said member and receiving gas from said outlet, and means, independent of said member, for conducting a cooling medium to and from the jacket of said tip.

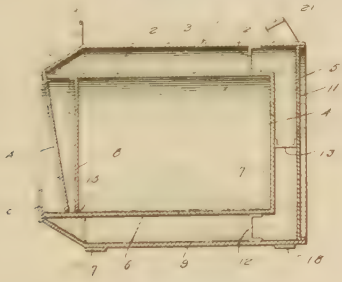
1,414,531. TOOL. CHARLES S. STRAIGHT, Ranger, Tex. Filed Apr. 8, 1920. Serial No. 372,227. 1 Claim. (Cl. 294—93.)

A device of the character described including a cylinder split longitudinally to provide a number of pipe grips each threaded exteriorly at the upper end and having its lower end rounded and provided with external teeth, a tapering bore being formed in said cylinder, a tapering shank arranged for co-action with said bore, having an extending wrench hold with corrugations, an enlarged head formed at the upper end of said shank terminating in an anvil

portion from which extends a threaded stud and a threaded collar held to said cylinder whereby said cyl-

inder may be brought into engagement with a suitable pipe, all substantially as and for the purposes set forth.

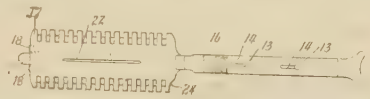
1,414,532. WATERING TROUGH. FRANK TURK, Pipestone, Minn. Filed May 13, 1919. Serial No. 296,847. 1 Claim. (Cl. 119—73.)



A watering trough comprising an inner cylindrical casing, an outer cylindrical casing spaced around said inner casing, a flat rear wall for said inner casing, a flat rear wall for said outer casing, said flat walls being spaced from each other, a flat front wall for said inner casing set inwardly from the front thereof and spaced at its lower edge from the cylindrical wall of the inner casing to provide a water passage, a flat front wall for said outer casing extending downwardly and inclined inwardly from the top thereof so that the lower edge of said inclined wall is adjacent the lower edge of said inner casing front wall and is similarly spaced from the cylindrical wall of the inner casing, and a ledge extending up from the lower side of said inner casing at the front thereof whereby a drinking space is provided between said ledge and said inclined wall.

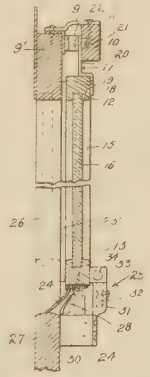
1,414,533. SAFETY RAZOR. JOHN H. VANCE, Pittsburgh, Pa., assignor, by direct and mesne assignments, to Tru-Way Razor Company, Pittsburgh, Pa., a Corporation of Delaware. Filed May 19, 1920. Serial No. 382,577. 2 Claims. (Cl. 30—12.)

1. A safety razor comprising mutually fixed handle and blade holding members, a locking bar arranged to engage on said blade holding member and secure a blade thereto and having notches on the under surface of its forward end, a lip on the locking bar adjacent the rear end thereof, and an independently removable guard mem-



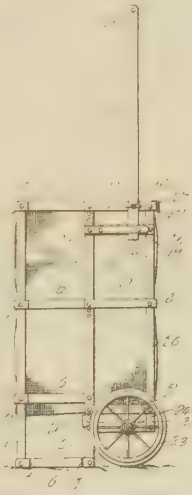
ber having hooks arranged to engage in the notches in said locking bar and a tongue arranged to engage under said lip.

1,414,534. ADJUSTABLE WIND AND STORM SHIELD FOR VEHICLES. DAVID E. VANDERVEER, Los Angeles, Calif., assignor of one-half to Charles W. Link, Los Angeles, Calif. Filed Apr. 14, 1919. Serial No. 289,863. 2 Claims. (Cl. 296—47.)



1. In combination with a vehicle provided with a permanent top, of a grooved suspension rail secured to said top, a sliding glass frame, suspension hangers secured to said frame, and a sliding block pivotally secured to each of said hangers, said blocks adapted to slidably engage the groove in said suspension rail, and means secured to said hangers and acting against said vehicle top to prevent vibration of said glass frame when the vehicle is in motion.

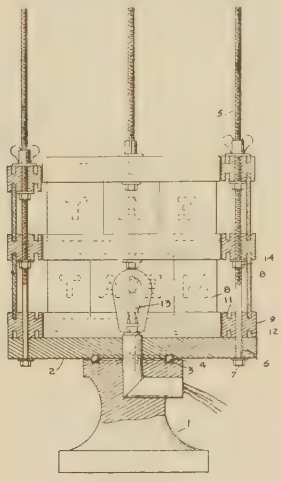
1,414,535. COLLAPSIBLE CARRIER. RANDALL T. VAN VALKENBURG, Washington, D. C. Filed Mar. 25, 1921. Serial No. 455,388. 7 Claims. (Cl. 280—40.)



1. In a carrier, a frame having a rigid section having a bottom, end walls and a rear side wall and open at its front, depending means carried by the bottom for engaging

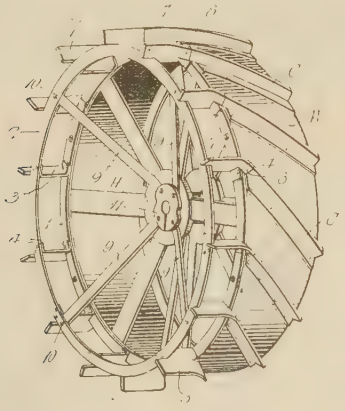
the ground to retain the rigid section in an upright position, and a foldable section pivotally connected with the end walls of the rigid section whereby the foldable section may be folded towards the rigid section to a collapsed position.

1,414,536. ADVERTISING DEVICE. LAURA F. WEBSTER and RAY J. CHRISTIANSON, St. Helena, Calif. Filed Dec. 12, 1921. Serial No. 521,574. 6 Claims. (Cl. 40—77.)



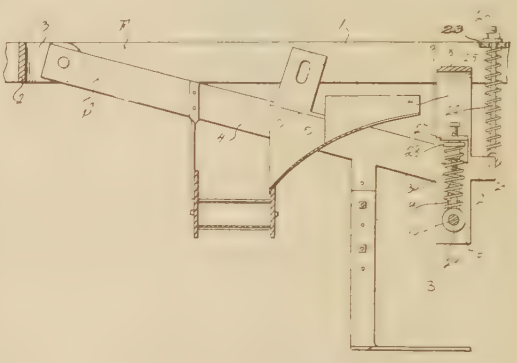
1. An advertising device of the character described comprising a base member, a plurality of upright rods carried by said member, a plurality of bars having grooves in opposed faces thereof rotatably and vertically adjustably mounted upon said rods and a plurality of letter bearing plates removably and slidably mounted between said bars in the grooves thereof.

1,414,537. DETACHABLE EXTENSION RIM FOR TRACTOR WHEELS. FRED W. WILLIG, Gervais, Oreg. Filed Dec. 22, 1921. Serial No. 524,171. 5 Claims. (Cl. 301—52.)



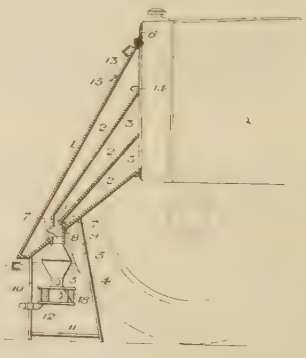
5. A wheel attachment comprising spaced side rings, cleats between the side rings secured against the inner side faces thereof and extending outwardly beyond the rings and having their outer end portions extending in overlapped relation to the side rings and at one side bent to extend for end to end contact with cleat strips extending diagonally across the rim of a tractor wheel, spokes connected with the outer side ring, and a hub-engaging disk connected with the inner ends of said spokes.

1,414,538. BEET AND POTATO DIGGER AND ELEVATOR. SAMUEL J. WILSON, Roberts, Idaho, assignor of one-half to Perry Basinger, Clyde, Idaho. Original application filed Jan. 11, 1919, Serial No. 270,691. Divided and this application filed Mar. 10, 1920. Serial No. 364,802. 2 Claims. (Cl. 55—107.)



2. A machine of the character described comprising a main frame, a supplemental frame pivoted at one end to the main frame and adapted to be disposed in an inclined position, vertically disposed rods pivoted to the opposite end of the supplemental frame and slidably engaged with the main frame, springs carried by the rods for urging the supplemental frame away from the main frame, a member supported by the supplemental frame for movement relative to the supplemental frame, and springs carried by said supplemental frame for urging said member toward the ground.

1,414,539. HEATER FOR AUTOMOBILE RADIATORS AND ENGINES. WILLIAM E. WILSON, Evansville, Ind. Filed May 13, 1920. Serial No. 380,973. 3 Claims. (Cl. 126—350.)

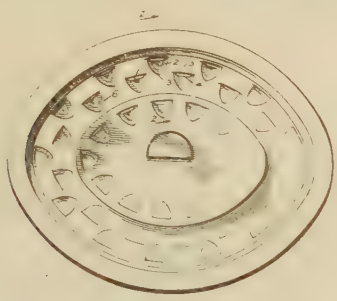


2. A heater comprising a funnel shaped shell or casing which is adapted to be applied to the front of an automobile radiator provided with a plurality of heat conveying compartments extending lengthwise thereof and open at their ends which face the radiator and respectively arranged to deliver heat into different horizontal sections of the radiator from the lowest to the highest part thereof, and means for supplying heat to the compartments at the smaller end of the shell or casing.

1,414,540. POT COVER. AMOS P. YOUNG and CLARENCE R. YOUNG, Leesburg, Ind. Filed June 10, 1920. Serial No. 388,079. 3 Claims. (Cl. 53—8.)

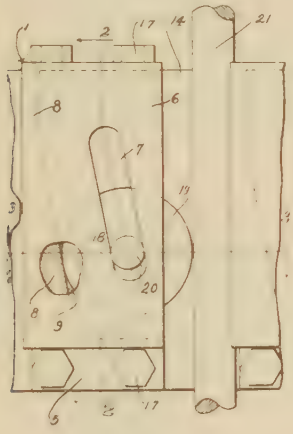
1. A pot cover provided with an elevated rim forming an annular depression inwardly adjacent thereto, said

annular depression provided with a series of slits extending parallel with the rim, the inner edges of said slits



being vertically depressed forming vertically extending perforations opening toward the center of the cover.

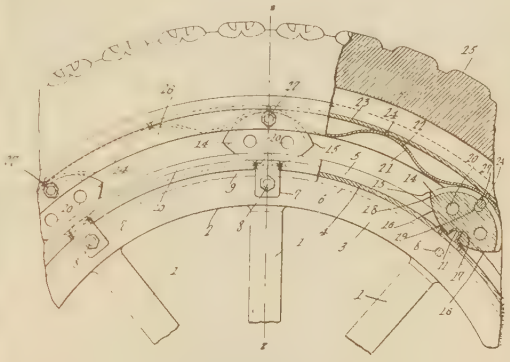
1,414,541. SUCKER-ROD HANGER. SAMUEL EDWARD ABEY and JAY J. HERN, Fellows, and MERLE STANLEY MCFADDEN, Taft, Calif. Filed Aug. 6, 1920. Serial No. 401,755. 1 Claim. (Cl. 24—244.)



A rod clamp comprising a support; a box-like rectangular casing open at the back and at one side, the support constituting a closure for the open back of the casing, the casing including a side wall provided with a downwardly slanting inner surface, the side wall having an external longitudinal rib, a top prolonged beyond the side wall to form a flange overhanging the support, a bottom having a depending flange resting against the support, and a front having a diagonal slot disposed parallel to the downwardly slanting inner surface of the side wall; securing elements connecting the flanges with the support; a roller projecting out of the open side of the casing and operating to bind a rod against the side wall of a like adjoining casing and behind the longitudinal rib thereof, the roller traversing the slanting inner surface of the side wall, one end of the roller being provided with a projecting axle movable in the diagonal slot, the other end of the roller being plane and being in engagement with the support, to hold the axle in the slot.

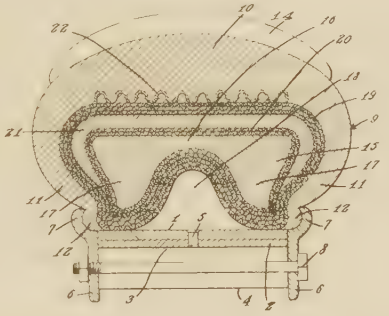
1,414,542. RESILIENT WHEEL. FRANK E. BESSLER, Akron, Ohio. Filed Sept. 27, 1919. Serial No. 326,755. 3 Claims. (Cl. 152—8.)

2. In a device of the class described, a wheel body; resilient blocks mounted to tilt circumferentially of the wheel body and having inclined inner faces spaced from the wheel body but adapted to contact therewith under excessive strains; a sinuous band having curved portions, certain of which cooperate with the blocks; a



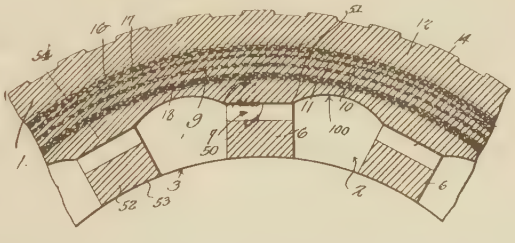
circumferential strip connected to others of the curved portions of the band; and a tire assembled with the strip.

1,414,543. TIRE. FRANK E. BESSLER, Akron, Ohio. Filed Sept. 27, 1919. Serial No. 326,756. 1 Claim. (Cl. 152—1.)



A tire comprising a casing including a tread and side wings; a core in the casing and comprising a tread and side wings, the side wings of the core defining a circumferential cavity in the core; a lining in the casing, and a lining on the core, the linings being spaced along the treads and the wings, and being brought together adjacent to the longitudinal edges of the wings, the linings being extended transversely of the cavity, in conformity to the shape of the cavity, to form a reinforcement the thickness of which is equal to the combined thicknesses of both linings; a cushion between the spaced portions of the linings.

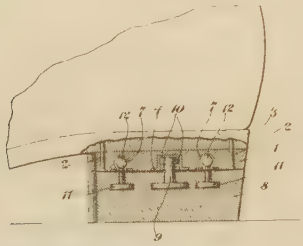
1,414,544. TIRE. FRANK E. BESSLER, Akron, Ohio, assignor of one-half to A. J. Dellenberger. Filed Feb. 6, 1920. Serial No. 356,604. 3 Claims. (Cl. 152—1.)



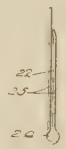
2. A tire comprising a body provided with spaced partitions defining cells opening through the inner surface of the body, the partitions being joined at their sides and at

their outer ends to the body, the body having circumferential arched surfaces located between the partitions, the partitions having circumferential openings which are independent of the body, the outer portions of the openings being disposed at the inner ends of the arched surfaces of the body, the partitions being solid between the openings and the inner surfaces thereof, and the body being solid between said arched surfaces.

1,414,545. SHOE HEEL. HARRY E. BOSWELL, St. Louis, Mo. Filed Oct. 25, 1920. Serial No. 419,211. 2 Claims. (Cl. 36—36.)

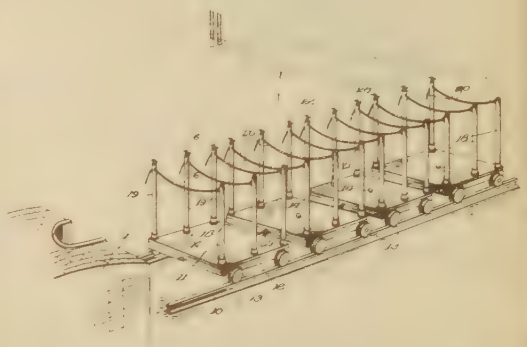


1. In a heel, the combination of an upper section rigidly secured to the under side of the shoe sole and having a flat lower wall, a socket embedded centrally in said upper section below the sole and having a slot through the lower wall thereof, cam-like surfaces in said socket on opposite sides of said slot, a lower heel section having a concavity in its upper end and having its side walls in continuation of the side walls of the upper section when the upper end of the lower section is spread, a stud secured centrally to the upper portion of the lower section within said concavity and arranged to extend into said socket, lugs on said stud arranged to engage the cam-like surfaces in said socket to spread the upper end of said lower section, and a number of releasable holding elements on said heel sections respectively between said stud and the sides of the heel to prevent said lower section from turning and to hold the lower section in connection with the upper section, the elements on the lower section being within said concavity.

1,414,546. AUTOMATIC STOP FOR KNITTING MACHINES. JAHAN G. CARLSON, Rockford, Ill., assignor to Burson Knitting Company, Rockford, Ill., a Corporation of Illinois. Filed Apr. 23, 1920. Serial No. 376,071. 3 Claims. (Cl. 66—7.)

1. An automatic stop mechanism including a pivoted yarn actuable member having a portion depending from its pivot and shaped to provide a narrow elongated opening terminating at its lower end in an eye, said opening being so restricted as to prevent the passage of a knot or other obstruction, whereby the latter will actuate said member for initiating the stop action, and said eye permitting free passage of said obstruction without displacing the yarn from said member.

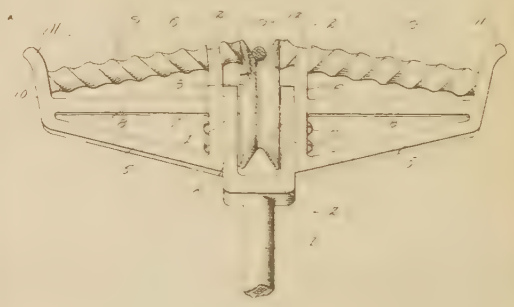
1,414,547. GLASS-HANDLING APPARATUS. EARL G. CHASE, Smethport, Pa. Filed Dec. 12, 1919. Serial No. 344,381. 12 Claims. (Cl. 49—14.)

4. A glass horse comprising a supporting base, series of uprights mounted at opposite sides of the base, saddles comprising flexible members suspended between corresponding uprights of the two series, the saddles being normally slack, and means whereby the slack of the saddles may be independently adjusted.



8. A glass horse comprising a plurality of wheeled sections, means separably coupling the sections together, and a saddle rotatably mounted upon each section.

1,414,548. DEVICE FOR RESTORING TROLLEY WHEELS TO TROLLEY WIRES. DONALD L. CHESTNUT, Seattle, Wash. Filed Sept. 17, 1921. Serial No. 501,266. 2 Claims. (Cl. 191—75.)

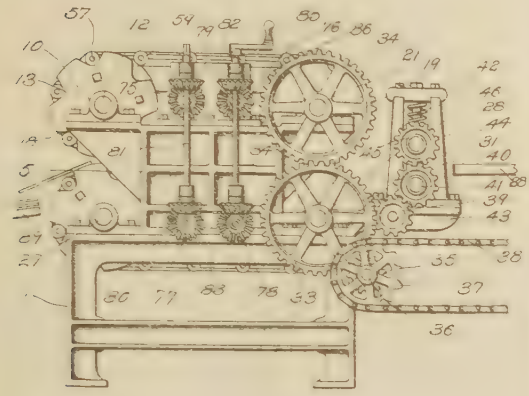


2. A trolley replacer, comprising a pole formed with a harp at the upper end, a trolley wheel rotatable in said harp, a pair of brackets having vertical portions, the brackets having their vertical portions secured to the harp on opposite sides of the wheel and extending therefrom in opposite directions, the upper end of the vertical portion of each bracket being formed into a bearing and the outer end portions of the brackets being formed with bearings and guard extensions above the bearings, and spiral members mounted to rotate in the bearings of each bracket and having one end extending in close proximity to the upper periphery of the trolley wheel, said spirals being adapted to engage a trolley wire and feed it into the trolley wheel.

1,414,549. BOX-BLANK-SCORING MACHINE. JAMES F. CLEARY, Kansas City, Kans. Filed May 12, 1919. Serial No. 296,412. 3 Claims. (Cl. 93—58.)

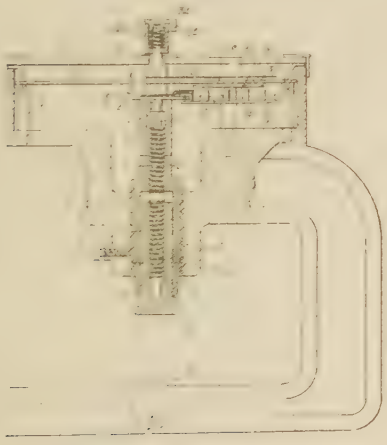
1. In a machine for scoring fiber box blanks, a base frame, oppositely disposed channel members supported by the base frame and spaced one from the other, the flanges of the channel members having heads on the free edges thereof, belt shifters slidable on the heads of the channel

members, sprockets mounted in the frame, belts engaging the sprockets, die members carried by the belts, means on



the shifters for engaging the sprockets to shift them laterally, and means for imparting lateral movement to said shifters.

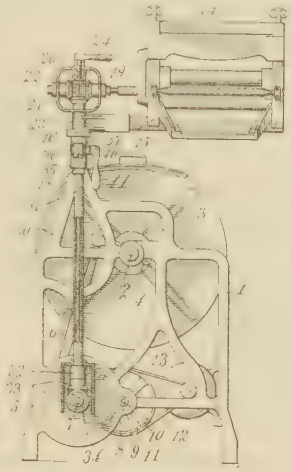
1,414,550. MICROMETER CALIPER. JOHN P. CLULEY, Chicago, Ill. Filed June 21, 1921. Serial No. 479,310. 3 Claims. (Cl. 33—167.)



1. In a micrometer caliper, a base having a bushing, a plunger held against rotation in the lower end of the bushing, the bushing and plunger being oppositely threaded at their upper ends, a screw-bolt having oppositely directed screws to engage the threads of the bushing and plunger, a shaft having a thumb-piece, connections between the shaft and screw-bolt to rotate the latter, and indicating mechanism operated by the shaft.

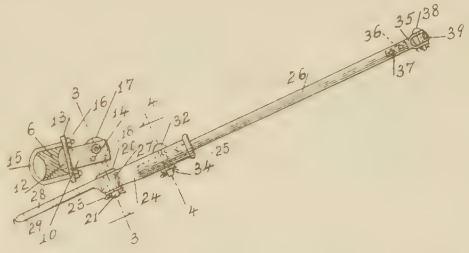
1,414,551. WRINGER-SUPPORTING MECHANISM FOR WASHING MACHINES. JAMES L. COFFIELD, Dayton, Ohio. Filed Dec. 13, 1920. Serial No. 430,218. 4 Claims. (Cl. 68—32.)

1. In a mechanism of the character described, a bearing having a guideway extending transversely to the axis thereof, a part rotatably mounted in said bearing, a pair of clamping members mounted in said guideway and arranged to engage the part which is journaled in said bear-



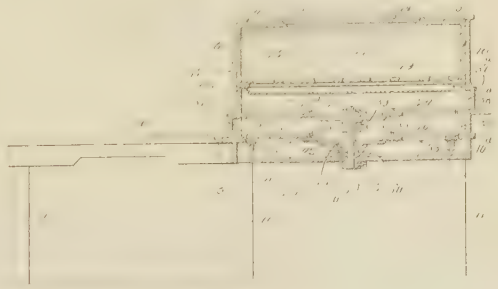
ing, and means for moving said clamping members into clamping engagement with said part.

1,414,552. AUTO TOWING AND STEERING APPLIANCE. CLAUDE W. DAVIS, Springfield, Ill. Filed Mar. 1, 1921. Serial No. 448,833. 1 Claim. (Cl. 280—33.5.)



A towing and steering appliance comprising a basal structure having a longitudinal bore, transverse slots opening into said bore, a vertical hole through said body structure and an extended perforated arm; a tongue rotative in the bore of the body structure and having a transverse hole; a bolt extending through the transverse slots of the body structure and through the transverse hole in the tongue and engaging the end walls of said slots to limit rotation of the tongue in the bore of the body structure; a hinge member swiveled in the transverse hole of the basal structure and a connecting block on which said hinge member is pivoted.

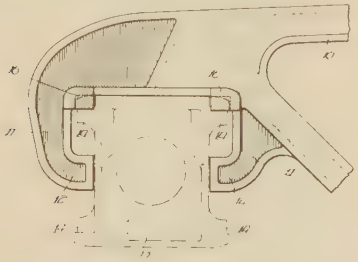
1,414,553. CHOCOLATE-CANDY COOLER. SENTERLOW DEMPSEY, Chicago, Ill. Filed June 27, 1921. Serial No. 480,516. 1 Claim. (Cl. 62—49.)



A candy cooler comprising a cabinet, having an ice compartment and a cooling chamber therebelow, and a

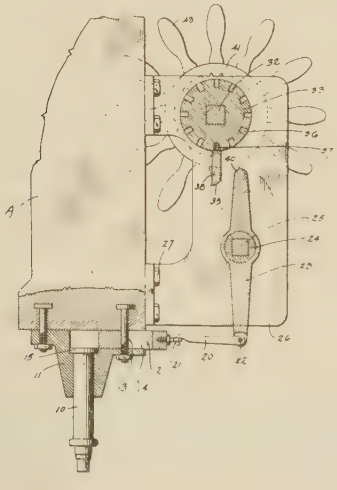
plurality of tray receiving shelves rotatively mounted, one above the other, in said chamber, and independently movable therein, there being openings in the wall of said chamber for access to individual shelves, and disposed at different levels around the chamber in front of said shelves.

1,414,554. PEDESTAL TRUCK SIDE FRAME. HARRY E. DOERR, St. Louis, Mo., assignor to Scullin Steel Company, St. Louis, Mo., a Corporation of Missouri. Filed Mar. 25, 1920. Serial No. 368,639. 2 Claims. (Cl. 105—220.)



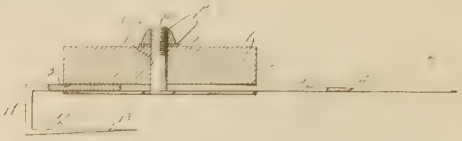
1. A pedestal truck side frame including pedestal jaws having portions which embrace bolt lugs of Master Car Builders' journal boxes normally to prevent relative lateral movement between the side frame and journal box, said pedestal jaws having portions which extend inwardly toward each other and embrace the sides of the journal box between the bolt lugs thereof for assisting in maintaining the operative position of said side frame and said journal box, said last mentioned jaw portions being of such dimensions as to provide relatively large bearing engagement with the sides of said journal box and whereby they must be applied to the side frame in a manner other than between the inner journal box lugs and the dust guard.

1,414,555. GAG-OPERATING ATTACHMENT FOR METAL-PUNCHING MACHINES. FLOYD S. DONLEY and JAMES WELSH, Pottstown, Pa. Filed Sept. 19, 1919. Serial No. 324,978. 13 Claims. (Cl. 164—111.)



1. In a gag operating attachment for punching machines, the combination with a plurality of gags, of operating levers therefor, a shaft, selecting means carried by said shaft for manual operation of said levers, means for returning said levers to their normal positions, and means to prevent accidental movement of said selective lever operating means.

1,414,556. SHINGLER'S STRAIGHTEDGE. CHARLES JOSEPH DRESEN, Spring Green, Wis. Filed June 10, 1921. Serial No. 476,441. 2 Claims. (Cl. 33—188.)



2. A device of the character described comprising a body portion formed with one edge thereof a true straight edge and with a plurality of spaced apart parallel slots extending transversely across one face of the body portion at right angles to the straight edge, a measuring bar slidably disposed in each slot and projecting laterally of the body portion at opposite sides of the latter, each of said bars being provided with an attaching member at its end remote from the straight edge, said attaching member consisting of a portion integral with the bar and extending at right angles thereto and a tapering end portion extending parallel with and in the same direction as the bar, and means for detachably securing the body portion to the bars.

1,414,557. CEREAL AND FRUIT BEVERAGE. CARLETON ELLIS, Montclair, N. J. Filed June 2, 1919. Serial No. 301,268. 3 Claims. (Cl. 99—11.)

2. A process of preparing a cereal coffee substitute which comprises roasting cereal material at a temperature only slightly below that necessary to burn the same, such roasting being sufficient to substantially darken the said material; roasting fruit material of the general character of raisins, figs, dates and prunes at a temperature lower than that employed in the first-mentioned step, such temperature being insufficient to substantially caramelize the sugar content of such fruit; and mixing said roasted products together.

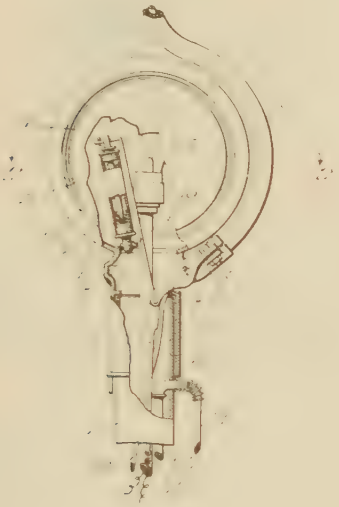
1,414,558. HEADWEAR. LOUIS H. ENSTEN, Cleveland, Ohio. Filed Feb. 15, 1921. Serial No. 445,145. 3 Claims. (Cl. 2—107.)

1. An article of headwear comprising a crown part and a tippet secured thereto around its rearward edge, the remainder of the crown part having a free selvage edge, both ends of said tippet having buttonholes and the length of the tippet being such that its ends overlap both when brought around the crown and when brought around the neck, a pair of buttons carried by the side of said tippet which is exposed when the tippet is lowered adapted to receive said buttonholes and means carried by the front of the crown part for securing such tippet when raised with its edge even with such selvage edge.

1,414,559. TIRE-INFLATING DEVICE. ARNO A. EWALD, Oakfield, Wis. Original application filed Oct. 21, 1920, Serial No. 418,497. Divided and this application filed Sept. 22, 1921. Serial No. 502,414. 3 Claims. (Cl. 299—77.)

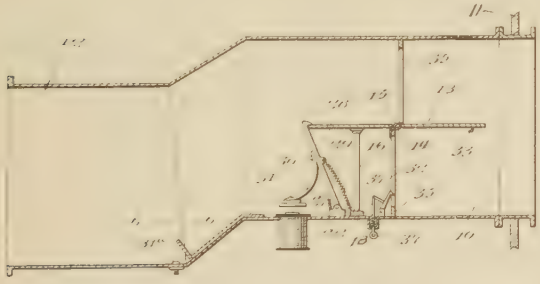
1. A tire inflating device comprising a hollow standard, a head swivelled on the upper end of said standard

and carrying a globe, one side of said head having an opening, a hose-carrying arm extending into the head through said opening and pivoted to the head, means



for normally raising said arm, and means confined in said globe and connected with the inner end of said arm, for cushioning the return movement of the latter to vertical position.

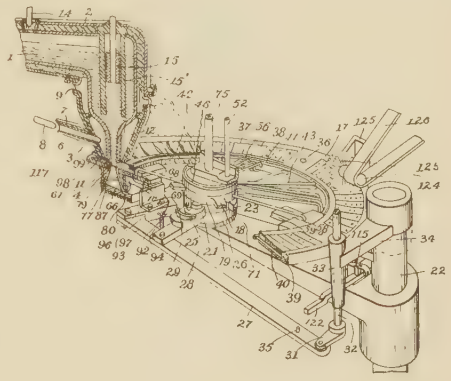
1,414,560. WATER-TIGHT VENTILATOR FOR SHIPS. JOSEPH K. CHUN FAT, aboard the U. S. S. Beaver. Filed Oct. 24, 1921. Serial No. 510,126. 3 Claims. (Cl. 114—212.)



1. In an automatic ventilator valve, the combination with a ventilator pipe having a downwardly offset portion, a pivoted disk for closing the passage through the pipe, means for holding the valve in open position, an electro-magnetic means for releasing the holding means, and an electric circuit for energizing the electro-magnetic means arranged to be closed by water entering the ventilator pipe through the offset portion.

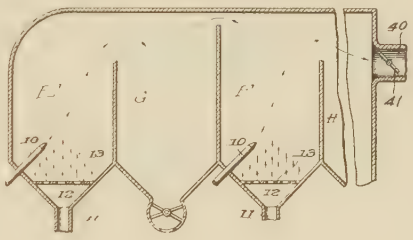
1,414,561. APPARATUS FOR FEEDING GLASS TO MOLDS. ENOCH T. FERNGREN, Washington, D. C., assignor to Hartford-Fairmont Company, a Corporation of New York. Filed Sept. 5, 1918. Serial No. 252,760. 7 Claims. (Cl. 49—55.)

1. In an apparatus for separating molten glass into mold charges, the combination of a container for the glass provided with a submerged discharge outlet, a hollow member having its lower end submerged in the glass opposite the outlet and spaced therefrom, and



rigid means for creating a flow of the glass in said member toward and from the outlet.

1,414,562. PROCESS FOR RECOVERING SOLID OR LIQUID MATTER FROM A SOLUTION OR SEMI-SOLUTION CONTAINING SAME. ADOLPH D. FEST, Chicago, Ill. Filed June 9, 1919. Serial No. 302,823. 2 Claims. (Cl. 127—9.)



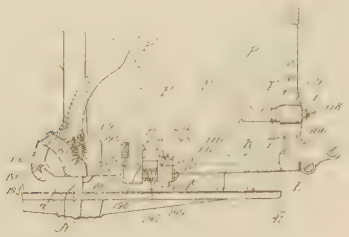
1. The method of recovering solid or liquid matter from solutions or semi-solutions containing same which consists in spraying the solution or semi-solution into a mixing chamber, admitting as a continuous process into the mixing chamber substantially such a quantity of air or gas capable of absorbing the moisture of the spray as to produce after desiccation an air or gas saturated or substantially saturated with water vapors at a given drying temperature, conducting the mixture thus formed into a collecting chamber, conducting the air or gas and such spray as may be contained therein into a second mixing chamber, admitting spray from the liquid or semi-liquid and also a proportionate amount of air or gas into the second mixing chamber as a continuous process, conducting the air or gas and spray into a second collecting chamber and finally exhausting the air or gas containing moisture from the last mentioned chamber.

1,414,563. AUTOMATIC TALKING MACHINE. JOHN GABEL, Chicago, Ill. Filed Jan. 4, 1916. Serial No. 70,131. 50 Claims. (Cl. 274—10.)

49. In an attachment for talking machines, the stylus of a talking-machine, and automatic means to determine the starting point of said stylus for playing a record of a given diameter, and automatic means to determine the starting point of said stylus for playing a record of a larger diameter.

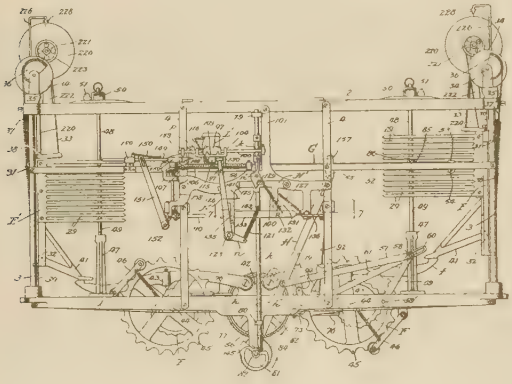
50. In a talking machine, the combination with record rotating means, and a co-operating reproducer, of a spring-actuated lifter for disengaging the reproducer from

the record, latching means for holding said lifter inactive, operated by said record rotating means and controlled by the stopping of the reproducer at the end of the record



groove for releasing the said lifter, and shifter mechanism for resetting said lifter and for returning the reproducer to starting position.

1,414,564. AUTOMATIC TALKING MACHINE. JOHN GABEL, Chicago, Ill. Filed Mar. 15, 1917. Serial No. 154,950. 61 Claims. (Cl. 274—10.)

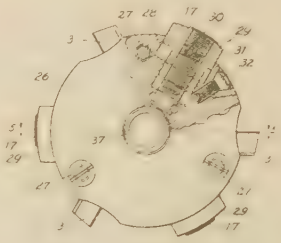


19. In a multiple record talking machine, the combination with means for rotating records in playing position and a cooperating reproducer, of shifter mechanism for moving records into and out of playing position and for moving the reproducer to starting position in engagement with the record in playing position, automatically actuated controlling devices for alternately throwing said record rotating means and said shifter mechanism into and out of operation, said controlling devices being arranged to start said record rotating means before the reproducer is moved by said shifter mechanism into engagement with the record in playing position.

24. In a multiple record talking machine, the combination with means for rotating records in playing position and a cooperating reproducer, of shifter mechanism for moving records out of and into playing position and for adjusting said reproducer, a motor, two pairs of friction disks for connecting said motor to said record rotating means and to said shifter mechanism, and means for alternately engaging and disengaging said pairs of friction disks.

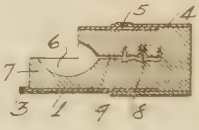
42. In a multiple record talking machine, the combination with means for rotating records in playing position and a co-operating reproducer, of a record magazine movable to select the records, a shifter mechanism for moving selected records into playing position, means manually operable during the reproduction of a record for selecting the next record to be placed in playing position, and two movable indicating devices associated with said magazine for respectively designating and distinguishing between the record in playing position and the next record to be placed therein.

1,414,565. ADJUSTABLE REAMER. DAVID R. GALLAGHER, Troy, N. Y. Filed Mar. 2, 1920. Serial No. 362,832. 6 Claims. (Cl. 77—75.)



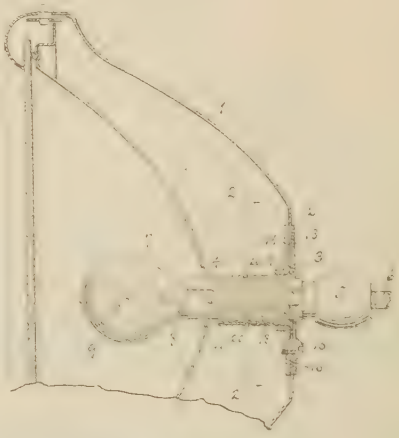
1. In a device of the class described and in combination, a head; a cutter mounted upon the head with provision for adjustment toward and from the axis of the head, said head being provided in its end with a centrally located bearing adapted to receive a gage whereby the projection of the cutter can be accurately determined; and a gage having a member rotatably seatable in said bearing.

1,414,566. DENTAL FLASK. JOSEPH A. GARDNER and DAVID S. GARDNER, Memphis, Tenn. Filed Mar. 24, 1921. Serial No. 455,085. 6 Claims. (Cl. 22—97.)



1. A casting appliance comprising an open top crucible holder, an enclosed flask with open ends integral therewith, an extension for the said flask open at both ends and means of clamping the said extension.

1,414,567. HEADLIGHT FOCUSING DEVICE. CHARLES E. GODLEY, Detroit, Mich., assignor to Edmunds & Jones Corporation, Detroit, Mich., a Corporation of New York. Filed Dec. 15, 1920. Serial No. 430,957. 6 Claims. (Cl. 240—44.)

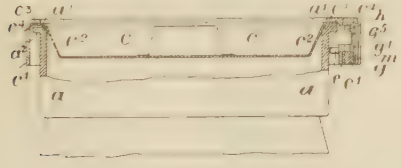


2. In a headlight, the combination of a body having an aperture, a connector sleeve extending into the body through said aperture, a pair of plates, one on each side of the body at said aperture, a coil spring attached to one of said plates and surrounding said sleeve, said sleeve having a pin extending between the coils of the spring, and means to frictionally secure the plates to the body.

1,414,568. BANKER'S PROTECTING STAND. DAVID GUDEMAN, Francesville, Ind. Filed Apr. 22, 1921. Serial No. 463,622. 1 Claim. (Cl. 89—36.)

In a bank teller's protecting device, a house for refuge of the teller, said house having a wall formed with inner and outer portions with openings therethrough, the walls of said openings being transversely concave, transparent disks having their peripheral edges transversely convex and fitting into the concave walls of the openings, and transversely apertured fire-arm receiving spheres mounted in certain other of the openings.

1,414,569. CLOSURE FOR RECEPTACLES. ALFRED GEORGE HUBBLE, London, England, assignor, by direct and mesne assignments, to The National Safety Churn Company Limited, London, England. Filed July 1, 1919. Serial No. 308,007. 8 Claims. (Cl. 220—55.)



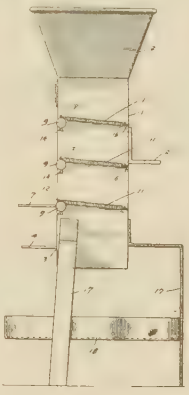
1. A closure for receptacles comprising a lid having an overhanging skirt portion surrounding the top portion of the receptacle, a plurality of co-operative tightening members on the said top portion of the receptacle and on the skirt, said members comprising an inclined rib on the said top portion, a locking member on the skirt adjacent to one of said tightening members, and peripheral means on said rib adapted for engaging said locking member.

1,414,570. CRAYON. EDWARD T. HURLEY, Cincinnati, Ohio. Filed Mar. 17, 1920. Serial No. 366,487. 3 Claims. (Cl. 106—5.)

1. A crayon consisting of animal fat, paraffin, turpentine and pigment.

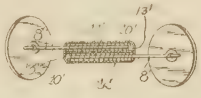
1,414,571. MEASURING DEVICE. FRANK WERTLEY HUTCHINS, Miami, Ariz. Filed Feb. 7, 1921. Serial No. 443,185. 5 Claims. (Cl. 221—111.)

1. In a measuring box, a wall having a horizontal slot and means operatively associated therewith, rotatably mounted in the wall so as to normally close the slot but



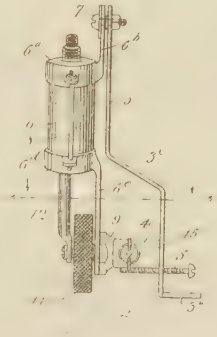
adapted to yield to the pressure of a slide inserted through the slot so as to allow the same to pass.

1,414,572. CUFF LINK. IRVING S. KAUFMAN, Chicago, Ill. Filed Mar. 31, 1921. Serial No. 457,432. 5 Claims. (Cl. 24—102.)



5. A cuff link comprising button members having overlapping studs movable outwardly along one another, means for opposing outward movement of said studs, said means permitting separation of said button members.

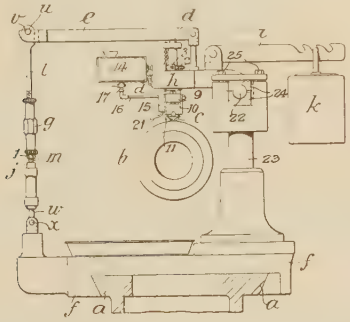
1,414,573. AIR PUMP. ALBERT KREHLIK, Cleveland, Ohio. Filed Nov. 10, 1920. Serial No. 423,153. 2 Claims. (Cl. 230—27.)



1. An air pump, comprising a pump cylinder, a valved cylinder head provided with a supporting arm extending at a plane at one side of said pump cylinder, a cylinder ring head on the opposite end of said pump cylinder and provided with an arm extending in an opposite direction and in a plane with said supporting arm and provided with a laterally extending shaft bearing, a shaft in the latter provided with a friction wheel on the opposite side of said last mentioned arm, a connecting rod on

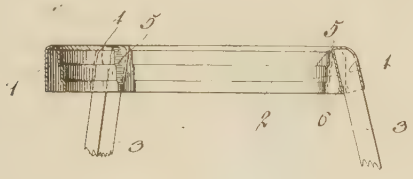
said friction wheel extending through said cylinder ring head, a piston in said pump cylinder connected to said connecting rod, and connecting bolts on the outside of said cylinder detachably connecting said valved cylinder head and cylinder ring head to each other and on said pump cylinder.

1,414,574. MACHINE FOR PRESSING LINES OR DESIGNS INTO ROLLERS. ROBERT LAING, Middleton, England. Filed May 29, 1920. Serial No. 385,381. 9 Claims. (Cl. 80—5.1.)



9. A machine for pressing lines or designs into rollers used for imparting a lustre or silky appearance to cotton fabrics, comprising a knurling mill head, a frame fulcrumed thereto, a knurling mill holder carried by said frame having bearing for the knurling mill and means for continuously lubricating said bearings and the periphery of the roller to be operated upon, said means consisting of an oil feed vessel for each knurling mill holder head having near the bottom two pipes entering holes in the knurling mill holder head, a pipe leading to the periphery of said roller and a joint oil supply vessel, a pipe leading from the said supply vessel to feed vessel furnished with a tap for the control of the lubricant from the former to the latter vessel, for the purpose specified.

1,414,575. BAG HOLDER. THOMAS MCCART, Spokane, Wash. Filed Jan. 27, 1921. Serial No. 440,360. 1 Claim. (Cl. 83—26.)

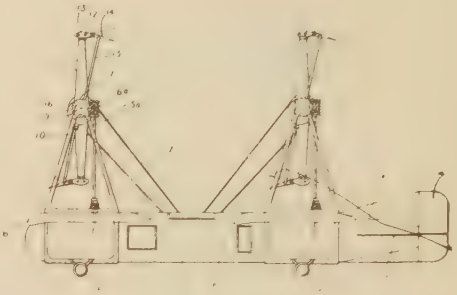


The combination with a supporting ring of inverted U-shape in cross section having an inner conical wall and a series of sockets each comprising a pocket fashioned in the outer wall of the ring and closed at its inner side by an outwardly off-set portion of the inner wall, of a funnel of inverted frusto-conical shape having an outwardly flaring upper portion and adapted to be seated and retain a bag in the inner wall of said ring as described, and legs in said sockets.

1,414,576. FOOD PRODUCT. HUGO MOCK, New York, N. Y. Filed Dec. 21, 1920. Serial No. 432,319. 8 Claims. (Cl. 99—10.)

2. A stable dry water soluble extract of oats in solid form.

1,414,577. MACHINE FOR NAVIGATING THE AIR. STEPHEN PAUL NEMETH, Dayton, Ohio. Filed May 1, 1920. Serial No. 378,264. 7 Claims. (Cl. 244—13.)



1. In a machine for navigating the air, a pair of air foils centrally mounted on a common power shaft each air foil comprising a double cambered portion, and an adjustable trailing portion tapered to an edge, means for moving the air foils about the common power shaft, and means to adjust the position of the trailing edges relative to the power shaft.

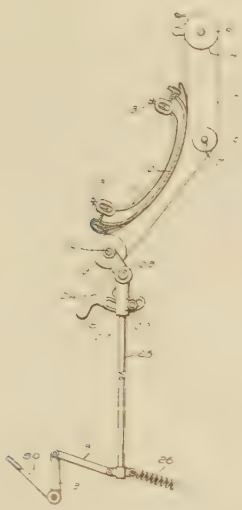
1,414,578. WINDSHIELD CLEANER. DAVID C. OATMAN, Buffalo, and FRANK G. CURVIN, Medina, N. Y., assignors, by direct and mesne assignments, to Frederick F. Church, Rochester, N. Y. Filed Apr. 16, 1920. Serial No. 374,296. 6 Claims. (Cl. 15—59.)

1. A window cleaner comprising a bearing portion, a wiper and an operating handle attached to and movable into alinement with the bearing portion for insertion or removal of the cleaner from a support.

1,414,579. TENSIONING DEVICE. CHARLES F. PEASE, Chicago, Ill., assignor to The C. F. Pease Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 7, 1921. Serial No. 443,042. 4 Claims. (Cl. 64—52.)

1. The combination with an endless band, of a pair of rolls, one of said rolls being adjustable, and tensioning means therefor, said means comprising bearing brackets receiving said adjustable roll, a pivotally mount-

ed lever arranged adjacent one of said brackets, means for securing said lever and said bracket to each other, said

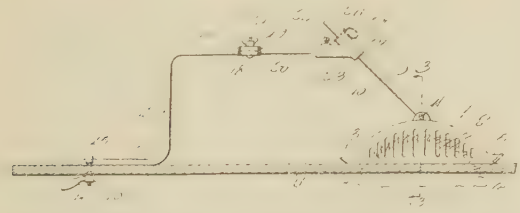


means being capable of adjustment, and a spring secured to the free end of said lever.

1,414,580. SEEDER ATTACHMENT FOR CULTIVATORS. WALTER L. PETERSON, Lyons, Nebr. Filed Apr. 5, 1921. Serial No. 458,662. 1 Claim. (Cl. 275—15.)

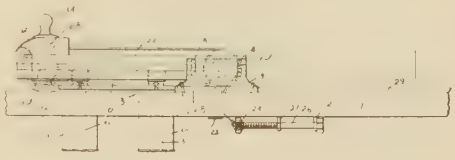
The combination with a seeder hopper, of a scatterer carried by a vertical shaft and disposed below and in engagement with the lower side of the hopper, said scatterer comprising a star shaped member having a plurality of points, radially disposed vertical ribs on said member emerging from the center and terminating at the apices of the angles between the points, recesses between said ribs and extending into said points, a rib extending from the end of said first named ribs to the points of the star shaped member respectively, whereby the recesses form pockets, bounded on one side by said last mentioned ribs and open on the other side, and whereby during the rotation of the star shaped member in one direction seed will be scattered, and upon rotation of the star shaped member in the other direction the seed will be prevented from being scattered.

1,414,581. SAW GUARD. ANTHONY C. PRABST and NORDAHL E. HOLTE, Antigo, Wis. Filed Dec. 29, 1921. Serial No. 525,670. 3 Claims. (Cl. 143—159.)



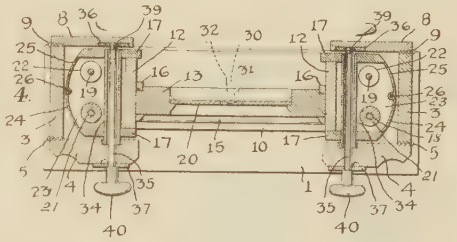
1. In a saw guard, a cage for resting upon a table and enclosing a portion of a saw extending upwardly through the table, a bracket including a portion mounted for horizontal swinging movement and having at its free end a sleeve downwardly and outwardly inclined, a stem connected with said cage and slidably passing through said sleeve and means for limiting downward sliding movement of said stem.

1,414,582. PHOTOGRAPHIC-PRINTING MACHINE. JOHN J. ROTH, Dayton, Ohio. Filed Jan. 7, 1920. Serial No. 349,969. 7 Claims. (Cl. 95—73.)



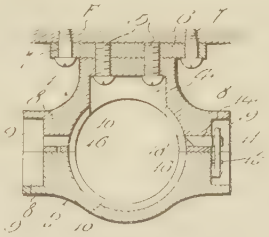
1. In a photographic printing machine, the combination with a top having a printing opening, of a transparent negative and paper-supporting medium in said opening, a carriage movable back and forth over said top, and a self-laying track whose free ends are secured to said top behind said printing opening therein adapted to be rolled by the carriage over the transparent medium to insure contact during the exposure of the printing paper.

1,414,583. WINDOW CONSTRUCTION FOR BUILDINGS. BERNARD L. ROTHSTEIN, Brooklyn, N. Y. Filed Jan. 4, 1921. Serial No. 434,899. 4 Claims. (Cl. 20—51.)



1. In building construction, a window frame having front and back hinged members, in combination with a sash frame inclosed by the window frame; and means passing through the front and back hinged members and the sash frame for rigidly locking the two frames together in operative relation.

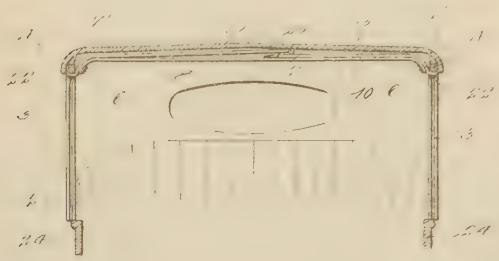
1,414,584. SANITARY MILK-BOTTLE LOCK. JEROME J. RUEDIGER, Baltimore, Md. Filed Nov. 3, 1921. Serial No. 512,531. 9 Claims. (Cl. 232—41.)



1. A milk bottle locking device comprising a body for attachment to a door or window frame to dispose one end thereof in abutting relation with the door or window,

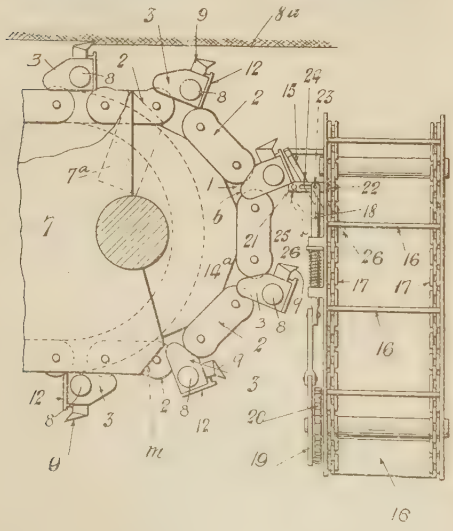
said body including stationary and movable members designed to engage the neck of a bottle, said body having a lock enclosure to be closed by the door or window, and co-acting locking means carried by said members and arranged in said enclosure, being accessible only when the door is opened.

1,414,585. DOOR CLOSURE FOR THE TOP PORTIONS OF AUTOMOBILES. RAYMOND C. RUPP, Kendallville, Ind. Filed Mar. 17, 1921. Serial No. 452,914. 5 Claims. (Cl. 296—140.)



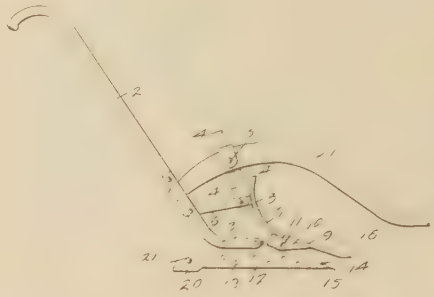
2. The combination with a vehicle body including a top having a roof and side walls having openings therein in opposed relation, of closures for the openings slidably mounted for movement from an operative position to an inoperative position beneath the roof, the closures when in an inoperative position having their inner end portions extending in overlapping relation, and a cam element carried by the inner end portion of one closure for engaging the second closure and guiding the closures into overlapping relation.

1,414,586. COAL-CUTTING MACHINE. ARTHUR RUSSELL, Hucknall, England. Filed Apr. 16, 1920. Serial No. 374,357. 6 Claims. (Cl. 262—28.)



1. In coal cutting machines rotatable tool carriers adapted to bear against stops after leaving the cutting face, said stops rotating the carriers, said carriers depositing the slack or dirt carried from the cutting face upon rotating stops adapted to bear on the carriers to rotate same into the cutting position after depositing the slack or dirt, and means for holding the tools carried by the carriers up to the coal when traversing the cutting face.

1,414,587. ADJUSTABLE SOLE PLATE FOR PLOWS. MARIANO J. SALAS, Molo, Iloilo, Philippine Islands. Filed May 3, 1921. Serial No. 466,400. 1 Claim. (Cl. 97—26.)



In combination, a plow beam, plow handles, a post having its upper end curved over on itself and embracing the plow beam, the lower end of the handles attached to the post, a brace interposed between the mid-portions of the post and the handles, a plow attached to the post, a soleplate adjustably attached to the plow and to the post and handles so as to have its forward end situated adjacent the plow point for bracing same.

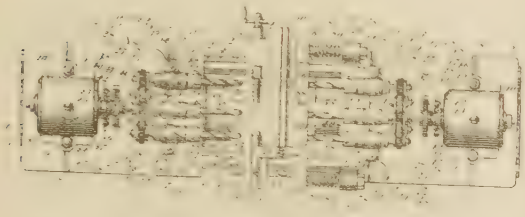
1,414,588. PATCH POSTER. CORA L. SCOVIL, Washington, Pa. Filed June 4, 1920. Serial No. 386,633. 5 Claims. (Cl. 35—17.)

1. A flexible display device comprising a fabric base member, human-feature and human-limb-simulating fabric means secured thereon, and fabric garment-simulating means secured to said base member and partially covering said first-named means to portray a clad human figure.

1,414,589. METHOD AND APPARATUS FOR PERFORATING METAL SHAPES. ELMER S. SEAVEY, Johnstown, Pa. Filed Nov. 6, 1918. Serial No. 261,346. 42 Claims. (Cl. 77—32.)

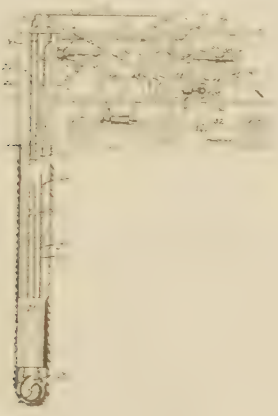
1. In a machine for perforating metal shapes, comprising a frame, slide-ways thereon, a carriage mounted on

the slide-ways, drill-actuating spindles mounted upon the carriage, means for rapidly rotating the drill-actuating



spindles and fluid-pressure means for reciprocating the carriage.

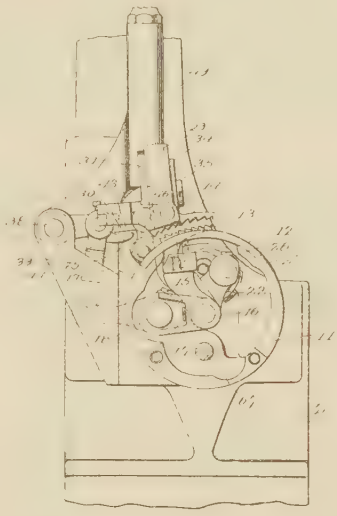
1,414,590. WELL-DIGGING MACHINE. WILLIAM V. SEIFERT, Thurman, Colo. Filed Nov. 28, 1919. Serial No. 341,110. 18 Claims. (Cl. 255—21.)



1. A digging machine, comprising a truck, an endless excavating carrier mounted to travel on the truck and to depend into a hole, a bodily movable pulley mounted on the truck and over which the carrier travels, means to control the bodily movement of said pulley, and a weighted member also adapted to depend into the hole and around which said carrier travels, and flexible means by which solely said weighted member is supported.

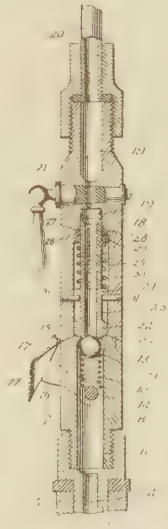
1,414,591. FEEDING MECHANISM FOR SEWING MACHINES. DUDLEY S. SEYMOUR, Oak Park, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed May 4, 1918. Serial No. 232,523. 19 Claims. (Cl. 112—207.)

8. A sewing machine including in combination a work supporting cylinder, a horizontally disposed feed rocker therein, a vertically disposed bracket pivoted to the feed rocker, a lower feed dog carried by the bracket, said bracket having a vertical member extending above the work supporting cylinder, a cross head slidably mounted on said member, a feed dog carried by said cross head, an arm extending rearwardly from said rocker, a bracket attached to said work supporting cylinder, an arm pivoted to the bracket and connected to the arm on the feed rocker, a finger carried by said arm on the bracket, a link connected to the cross head and adapted to be engaged by the finger, a spring for forcing the cross head downwardly, said finger being disposed so as to positively raise the link and lift the cross head when the bracket is lowered to move the lower feed dog out of engagement with the material and so as to permit the lower feed dog to raise the material and the upper feed



dog against the action of the spring during the feeding movement of the material.

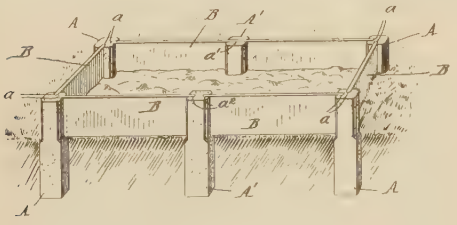
1,414,592. LUBRICATING SYSTEM. BERNARD H. SKELLY, Bridgeport, Conn. Filed June 8, 1920. Serial No. 387,322. 12 Claims. (Cl. 284—18.)



11. In combination with a ported member having one end curved upon the arc of a circle and through which end the port opens; a pair of studs extending laterally from said member; a dust cap hinged upon said studs and having a contour to fit the curved face aforesaid; a supply nozzle having a curved outer end complemental in form to the curvature of the ported member; a hollow spring actuated lock plunger mounted in the nozzle, the head of said plunger normally protruding beyond the curved face of the nozzle; and a pair of hooked shaped arms extending from the nozzle adapted to engage the studs, said arms being of such length that when the arms are in engagement with the studs, and the nozzle is swung laterally, the end of the nozzle will first contact the dust cap and, through continued movement, remove the dust cap from the ported member and finally come

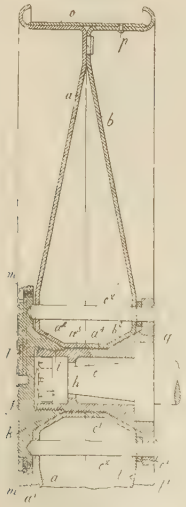
into operative relation with the ported member, with the head of the plunger in locking relation with the end of the port in the ported member.

1,414,593. BORDER FOR HOTBEDS AND THE LIKE. FREDERICK F. SKLENKA, Long Island City, N. Y. Filed Aug. 9, 1919. Serial No. 316,509. 1 Claim. (Cl. 47—27.)



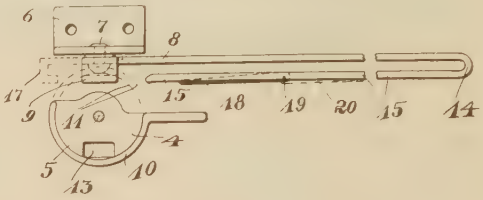
A border for hotbeds and the like embodying a plurality of spaced corner posts cast from concrete and of substantially uniform cross sectional area throughout their lengths, said posts being embedded in the ground for a portion of their length, each post being integrally cast and that portion of each post which projects above the ground being provided with vertical slots cast in the posts and adapted to receive the end of boards, the slots extending from the tops of the posts downwardly substantially to the surface of the ground, and provided with parallel side faces, so that boards may be positioned in or removed from the slots while the posts are in position, in combination with intermediate posts of substantially uniform cross sectional area throughout their lengths, said posts being cast from concrete and embedded for a portion of their length in the ground, said intermediate posts being bifurcated for that portion thereof which projects above the ground so as to straddle the boards intermediate their ends and support them against sagging outwardly under the pressure of the dirt adapted to be contained in the bed.

1,414,594. WHEEL FOR MOTOR ROAD AND OTHER VEHICLES. CHARLES STEWART HASTINGS SNOW, South Hampstead, London, England. Filed Nov. 2, 1920. Serial No. 421,323. 3 Claims. (Cl. 301—63.)



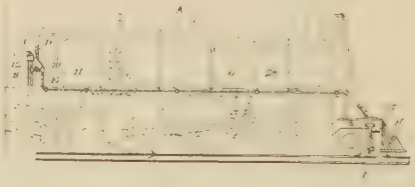
1. A detachable wheel having complementary disks, a series of pins passing through said discs for securing the discs together adjacent the hub of the wheel, means for interlocking said disks at their outer edges, said disks beyond said interlocking means being projected laterally and curved to form a tire receiving rim section.

1,414,595. WINDOW-SASH FASTENER. WILLIAM A. SNYDER, Los Angeles, Calif. Filed Apr. 12, 1921. Serial No. 460,728. 2 Claims. (Cl. 292—278.)



1. In a window lock, a locking member having a pivot support to allow a swinging on a normally horizontal plane and having an aperture sidewise of the pivot support through the locking member, and a second locking member having a pivot support to allow a swinging on a normally vertical plane, the second-named locking member having means to engage with the first-named locking member for a normally closing position of the window lock and having also means for slidingly engaging with the first-named locking member allowing a limited movement, the second-named locking member having furthermore means to lock the first-named locking member in partly open position so as to prevent a closing.

1,414,596. TRAIN STOP AND TRAIN CONTROL. HENRY BUSH SPENCER, Ottawa, Ontario, Canada. Filed Dec. 27, 1921. Serial No. 524,992. 1 Claim. (Cl. 246—199.)



A train stopping device comprising, in combination, an engineer's brake valve, a brake line pipe, a T-coupling connected to the brake line pipe, a connecting conduit connected to the T-coupling, a valve in the connecting conduit, a second T-coupling connected on the opposite side of the valve to the first-mentioned T-coupling, an air gauge connected to one side of the second T-coupling, a conduit connected to the opposite side of the second T-coupling, a frangible signalling device connected to said last-mentioned conduit and located in close proximity to the rail and adapted to be broken by the exploding of a torpedo, all as substantially herein set forth and described.

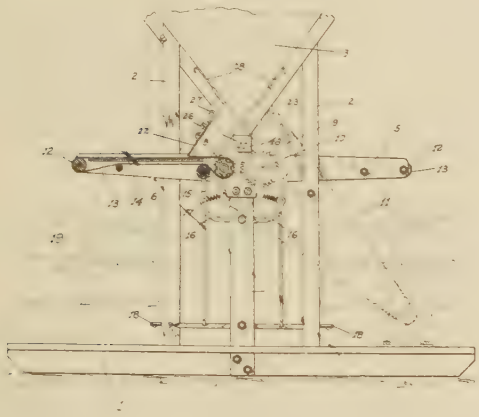
1,414,597. PAINT COMPOSITION. JOHN F. STEENMEYER, Hull, Iowa, assignor of four-tenths to Theodore Steensma, Hull, Iowa. Filed Aug. 15, 1921. Serial No. 492,595. 5 Claims. (Cl. 134—39.)

5. A paint composition comprising a pigment suitably colored 100 parts, linseed oil 47 parts, petroleum 45 parts and drier 5 parts.

1,414,598. HAND-PICKING TABLE. ARCHIBALD R. STEPHEN, Lodi, Calif. Filed Apr. 4, 1921. Serial No. 458,399. 4 Claims. (Cl. 130—32.)

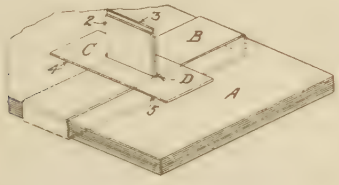
1. In combination with a driven belt, a chute positioned thereabove and terminating thereat, and opening

provided in the front end of the chute and extending upwardly a certain distance from the lower edge, flexible



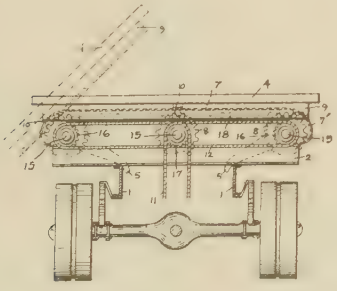
fingers covering said opening, and means for altering the operative length of said fingers.

1,414,599. PACKAGE TIE. CARL O. STOCKMAN, Albany, N. Y. Filed Sept. 19, 1921. Serial No. 501,560. 2 Claims. (Cl. 24—16.)



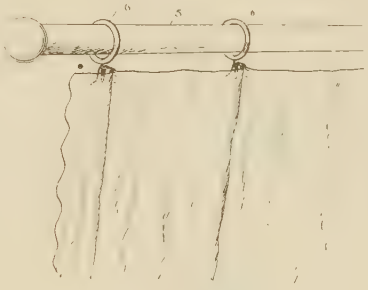
1. A package tie comprising a band member of flexible fibrous material having a width many times as great as its thickness; and a fastener member of similar material having a length greater than the width of said band, and a slot longitudinally thereof adapted to pass the ends of said band member.

1,414,600. UNLOADING APPARATUS FOR VEHICLES. HUGO V. STUTH, Tacoma, Wash. Filed Jan. 24, 1921. Serial No. 439,612. 4 Claims. (Cl. 298—13.)



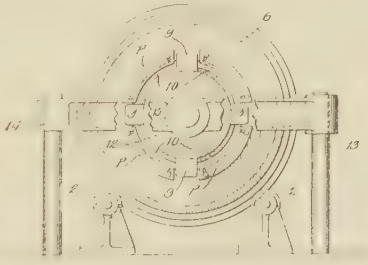
1. Unloading apparatus of the class described including a supporting frame, shafts journaled on said supporting frame, gear wheels on said shafts, a load carrying body, gear racks rigid with said load carrying body and arranged to run on said gear wheels, means for selectively rotating said gear wheels in either direction to move said body into an overhanging position with respect to said frame, slotted trackways rigid with said supporting frame and arranged parallel with said gear racks, said trackways being curved downwardly at the ends and devices movable in said slotted track ways and connected with said load carrying body for holding said gear racks in mesh with said gear wheels.

1,414,601. PIN. CLARENCE TAYLOR, Newport, R. I. Filed Nov. 2, 1921. Serial No. 512,234. 2 Claims. (Cl. 156—21.)



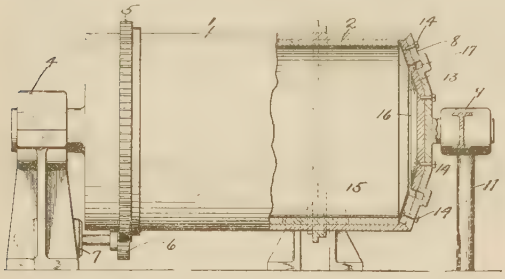
2. A curtain pin comprising a pair of U-shaped jaws having converging arms terminating in eyelets, a pivot pin extending through said eyelets and having bends defining a hook, one side of said hook being extended beyond the pin and bent outwardly to define an attaching member, and a gradually restricted entrance opening to the hook, and a coiled spring mounted on said pivot pin and having its terminal portion engaged with said jaws, and elongated pieces of metal having rolled portions extending about said jaws are provided along their longitudinal edge portions with overlapping teeth, one set of teeth being engaged with one of the rolled portions.

1,414,602. MILL. HARRY P. TAYLOR, Los Angeles, Calif. Filed June 29, 1920. Serial No. 392,807. 15 Claims. (Cl. 83—9.)



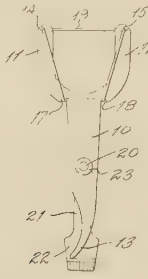
1. In a mill of the character described, a drum having an annular flange at one end thereof defining the boundaries of a central opening, said flange extending transversely of the drum and being provided with a continuous uninterrupted opening in the working face thereof whereby material is continuously discharged from the mill through the flange.

1,414,603. MILL. HARRY P. TAYLOR, Los Angeles, Calif. Original application filed June 29, 1920, Serial No. 392,807. Divided and this application filed Sept. 26, 1921. Serial No. 503,424. 9 Claims. (Cl. 83—9.)



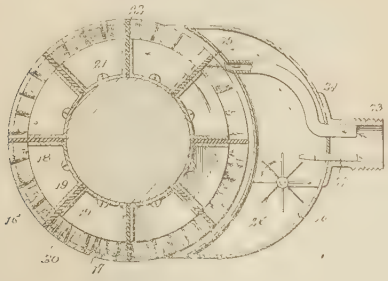
1. In a mill of the character described, the combination of a drum and a door at one end of the drum provided with a continuous slot through which material is discharged from the mill.

1,414,604. SANITARY TOOTH CLEANER. RUDOLF THUM, Baldwin, N. Y. Filed Dec. 28, 1920. Serial No. 433,616. 4 Claims. (Cl. 132—91.)



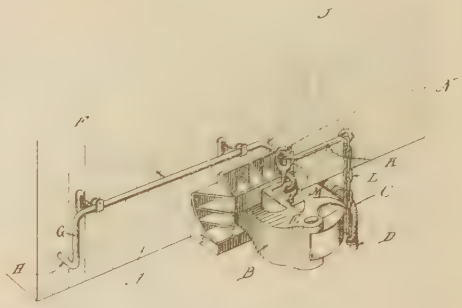
4. A device of the class described comprising a shank, a pair of parallel arms extending longitudinally from one end of said shank, said arms being provided with notches adjacent their outer ends and having similar notches adjacent their ends adoining the shank, a flexible member adapted to lie in the notches in such position as to bridge the space between the ends of the arms, a pick at the opposite end of the shank and a gum massaging member pivoted to the shank in such a position that when parallel therewith it will form a guard for the pick.

1,414,605. ROTARY WASHER. RICHARD TOLOOKJIAN, Paterson, N. J. Filed June 1, 1921. Serial No. 474,160. 2 Claims. (Cl. 15—24.)



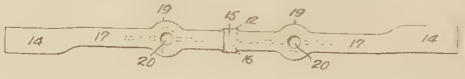
1. A rotary washer including a hollow casing, a brush mounted thereon for rotation, a plurality of radial vanes carried by the brush, said casing having a series of openings in one wall, a jet extending through the casing and directed against the vanes, and a coupling to supply water to the jet and casing.

1,414,606. RELEASE RIGGING FOR COUPLINGS. HECTOR ALEXANDER VARE, Decatur, Ill. Filed July 26, 1920. Serial No. 399,169. 1 Claim. (Cl. 213—59.)



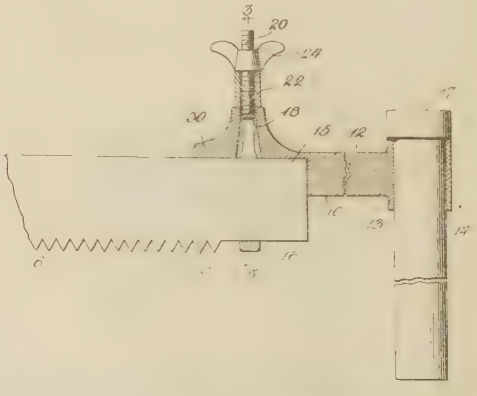
In a release rigging for couplings, the combination with a car, its coupler-head and locking pin, and an air hose and its coupler-head, of a member on the car comprising a shaft portion including an arm at one end forming a limiting stop for the shaft in one direction of its rotation, and also including an arm extending to and overhanging the first named coupler-head, said arm being extended laterally beyond the latter substantially parallel to the shaft portion and offset from the axis thereof, means flexibly attached to the second named arm and connected to the locking pin, and a second flexible member attached to the extended portion of the said second named arm and connected to the coupler-head of said air hose.

1,414,607. METHOD OF MAKING BRAKE-BEAM FULCRUMS. ERNEST R. VIBERG, Montreal, Quebec, Canada, assignor to Canadian Car and Foundry Company Limited, Montreal, Quebec, Canada, a Corporation. Filed May 31, 1919. Serial No. 301,073. 9 Claims. (Cl. 29—164.)



1. A process of making forged brake beam fulcrums, which comprises rough forging a straight bar to leave greater amounts of metal at the centre than at other points of the bar, and subsequently forming the U-bend and tension member socket of the fulcrum from the increased amount of metal at the centre of the bar.

1,414,608. SAW HANDLE. BAZEL R. WATSON, Everett, Wash. Filed June 12, 1920. Serial No. 388,416. 1 Claim. (Cl. 145—111.)



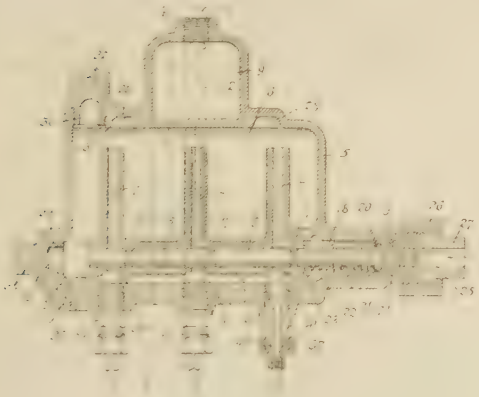
A device of the character described including a shank provided at one end with a sleeve to receive a handle and

at its opposite end with a tubular head projecting above and below the shank and formed at its lower end portion with a diametric saw blade receiving slot extending axially of the shank in the rear of the head, the line of the shank at the lower side thereof sloping to the lower end of the head to define a pair of bearing lips bracing the projecting lower end of the head and providing a continuation of the walls of said slot to contact a saw blade in the rear of the head, ears projecting from the forward side of the head bracing the projecting upper end of the head and integrally joined at their upper ends to provide a saddle to bear over the upper edge of the saw blade, the forward edges of said ears sloping to the lower end of the head to provide a second pair of bearing lips bracing the projecting lower end of the head and forming a continuation of the walls of said slot to contact the saw blade at the forward side of the head, and a loop adjustable through the head for clamping the saw blade in said slot.

1,414,609. METHOD AND COMPOSITION FOR RENDERING MATERIALS FIREPROOF. FRANK C. WHEELER, Montreal, Quebec, Canada. Filed Sept. 18, 1917. Serial No. 192,003. 2 Claims. (Cl. 23—5.)

2. A method of fireproofing, which comprises immersing the material to be fireproofed in a composition resulting from the mixing of water, borax and alum, and boiling for approximately one hour.

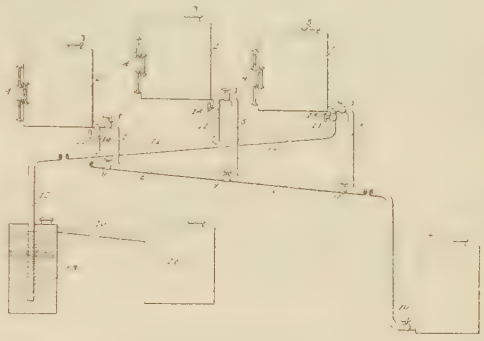
1,414,610. LUBRICATING APPARATUS. ROBERT WOOD, Brooklyn, N. Y. Filed Jan. 28, 1920. Serial No. 354,629. 23 Claims. (Cl. 184—29.)



7. A lubricating device having a lubricant supply chamber with an outlet therefrom, a combined valve and plunger in the casing controlling said outlet, a piston associated with said combined valve and plunger, connections by which fluid under pressure can be admitted against said piston whereby as pressure is applied against said piston the plunger will be shifted to open the outlet and substantially simultaneously the pressure in the lubricant chamber will be increased by the plunger.

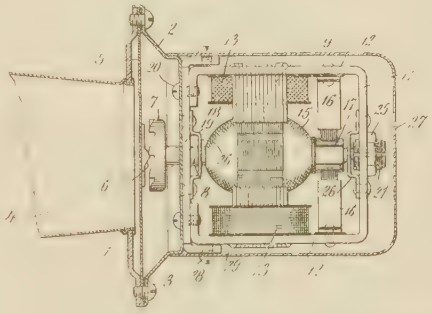
1,414,611. OIL-SALVAGING MEANS. DANIEL ASPINALL, Vancouver, British Columbia, Canada. Filed Mar. 31, 1921. Serial No. 457,389. 3 Claims. (Cl. 220—88.)

1. A means for salvaging oil or the like from any one of a series of storage tanks when the same is threatened by fire, said means comprising a salvaging tank remote from the storage tanks, means for delivering the contents of any storage tank into the salvaging tank, a second salvaging tank located remote from the storage tanks, and means for delivering the residue from any storage



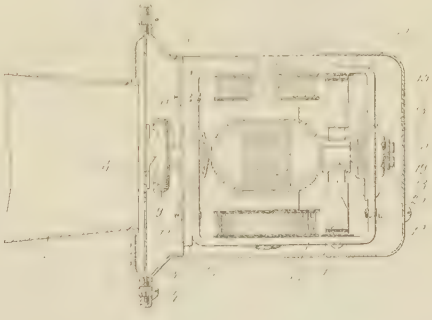
tank through a cooling medium into the second salvaging tank.

1,414,612. SIGNAL FOR MOTOR VEHICLES. EMANUEL AUFIERO, Brooklyn, N. Y., assignor to E. A. Laboratories, Inc., Brooklyn, N. Y., a Corporation of New York. Filed Feb. 26, 1921. Serial No. 448,088. 3 Claims. (Cl. 177—7.)



1. In a signal, the combination with the diaphragm chamber, and the diaphragm therein, of an electrically controlled motor for vibrating the same, and a support for the motor, said support comprising a bar for connection with the chamber wall and having an opening for the shaft, a substantially rectangular bracket comprising a body having an opening for the motor shaft and arms connected with the bar, the bar having lateral lugs at its ends, and a cover for the motor fitting outside the lugs, and detachably connected thereto.

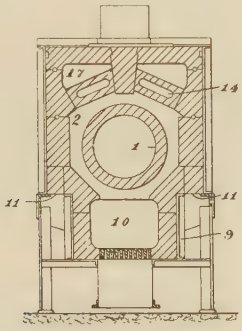
1,414,613. SIGNAL FOR MOTOR VEHICLES. EMANUEL AUFIERO, Brooklyn, N. Y., assignor to E. A. Laboratories, Inc., Brooklyn, N. Y., a Corporation of New York. Filed Feb. 26, 1921. Serial No 448,089. 6 Claims. (Cl. 177—7.)



6. In a signal of the class described, the combination with the diaphragm of means for vibrating the diaphragm

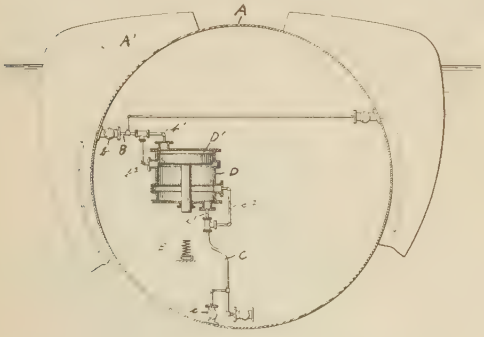
comprising an electric motor, said motor having a frame consisting of a single piece of drawn sheet metal of rectangular cross section and with a web or bottom piece integral with the four sides, a motor shaft bearing in one of said four sides, the opposite side having a hole of larger diameter than the motor shaft and an extra piece carrying the other motor shaft bearing attached to said last mentioned side with the bearing in line with the hole, whereby the motor may be taken down by detaching the said piece from the frame.

1,414,614. MUFFLE FURNACE. JOHANNES ROBERT CARL AUGUST, Halifax, England. Filed May 8, 1920, Serial No. 379,994. Renewed Jan. 24, 1922. Serial No. 531,511. 6 Claims. (Cl. 263—34.)



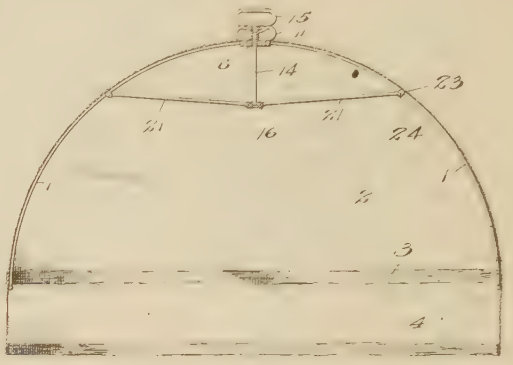
1. A rotary furnace of the rotary barrel type, formed by the combination of a rotary heating chamber closed at one end, and having a central aperture at the other, and a removable muffle or barrel inserted closed end first, through the said aperture while the open end which is closed by a detachable cover is left projecting, the space between the rotary heating chamber and the barrel being subdivided by longitudinal bearers into a plurality of longitudinal flues for the hot gases to pass through, the bearers forming throughout their lengths supports for the muffle which rotates with the heating chamber.

1,414,615. APPARATUS FOR PREVENTING ESCAPE OF OIL FROM SUBMARINE TANKS. GUSTAV BAUER, Hamburg, and FRITZ KRAMER, Blankenese-Dockenhuden, near Hamburg, Germany. Filed Aug. 31, 1921. Serial No. 497,242. 12 Claims. (Cl. 114—6.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



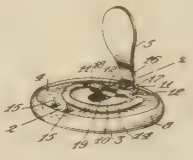
1. Means for use on submarines for preventing the escape of oil from the oil tanks which are situated otside the submarine and are not built to resist pressure, comprising a device which automatically operates to maintain in the interior of the tanks a pressure which is less than the pressure of the water surrounding the tanks.

1,414,616. CANOPY. WILLIAM HENRY BEEHLER, Baltimore, Md. Filed Dec. 7, 1920. Serial No. 428,983. 2 Claims. (Cl. 5—14.)



1. The combination in a canopy with four supporting ribs and complementary distending ribs pivoted thereto, of a center rod having an end loop and a head at the opposite end of the rod, pivotal connections between the distending ribs and said head, a runner on said rod having a base pivotally connected with the supporting ribs, and duplex reinforcing loops forming finger holds and connecting said runner and base, said head being located below the plane of the pivotal connections between the supporting and distending ribs when the canopy is open.

1,414,617. COLLAR BUTTON. SAMUEL BLACHER, Providence, R. I., assignor to Joseph E. Miller, Incorporated, Providence, R. I., a Corporation of Rhode Island. Filed Sept. 6, 1921. Serial No. 498,770. 1 Claim. (Cl. 24—97.)

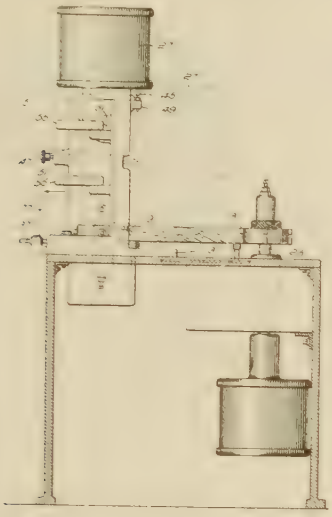


An article of the type specified comprising a back-plate, a hinge-plate secured thereto and formed with a central opening having upstanding socketed ears on its sides and raised abutments extending rearwardly from said ears toward the edge of the plate to provide opposite parallel shoulders on the upper face of the plate, and an L-shaped lever having a rest-portion provided with trunnions pivoted in the ears on the hinge-plate, said lever adapted to be closed against the hinge-plate and to be tilted into upright position in relation thereto, the rest on said lever being arranged to sit flat against the top of the hinge-plate with its sides confined between the opposite shoulders of the abutments thereon.

1,414,618. SIDE HEAD CONSTRUCTION FOR MATCHERS AND THE LIKE. CHARLES W. H. BLOOD, Winthrop, and CARL G. OSTEMAN, Boston, Mass., assignors to S. A. Woods Machine Company, Boston, Mass., a Corporation of Massachusetts. Filed July 7, 1920. Serial No. 394,451. 5 Claims. (Cl. 144—90.)

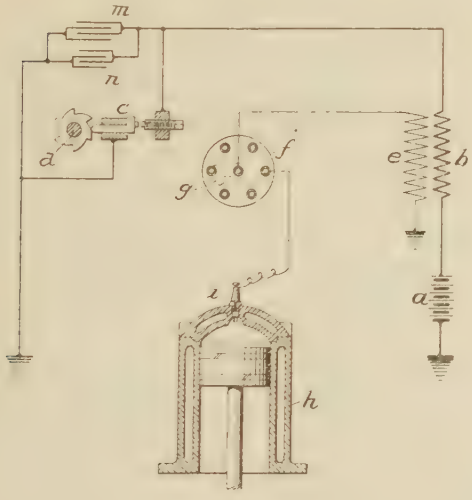
1. A matcher or like machine comprising the usual horizontal bed, opposed rotary tools operating substantially in the plane of said bed and rotary motors directly coupled thereto and disposed respectively above and below the plane, the former having a pivotal mounting on a substantially horizontal axis remote from and above

the tool providing an inward position in which the tool is adapted to operate on work passing over the bed and



adapted to be swung through a wide arc to a substantially horizontal position wherein the tool is distant from the bed of the machine and of convenient access.

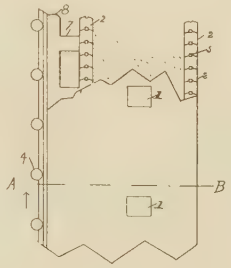
1,414,619. MEANS FOR INCREASING THE DIELECTRIC STRENGTH OF CONDENSERS. WILLIAM C. BRINTON, Jr., Kennett Square, Pa., assignor, by mesne assignments, to Philbrin Corporation, Kennett Square, Pa., a Corporation of Delaware. Filed Oct. 17, 1918. Serial No. 258,582. 3 Claims. (Cl. 123—148.)



1 The combination of a primary and a secondary circuit having an induction coil connected thereto, a make and break device, and a plurality of condensers of different capacities connected in multiple to each other in the primary circuit.

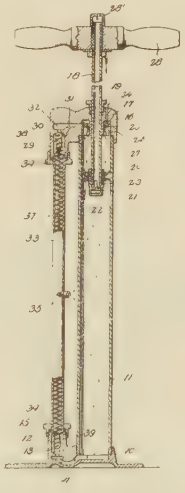
1,414,620. REINFORCED CONCRETE CONSTRUCTION FOR PIERS, BULKHEADS, SEA WALLS, AND DRY DOCKS. ALEXANDER BROWNLEE, San Diego, Calif. Filed Aug. 3, 1917. Serial No. 184,292. 1 Claim. (Cl. 94—51.)

A bulkhead, sea wall, dry-dock, and the like, comprising parallel impervious walls formed of concrete sheet piles jetted and driven into the bottom of a body of water, forming a hollow channel between said walls, a hollow, monolithic, reenforced concrete cover of substantial depth and formed with a comparatively large enclosed chamber and comparatively small filling holes through its upper floor and lower floor, cast about the upper ends of the piles



forming said walls and forming integral enclosing walls therewith, and a filling of plastic dredging detritus injected through the filling holes into the hollow channel formed between said walls and into the enclosed chamber in said cover, the whole forming a rigid and massive structure.

1,414,621. AIR PUMP. ALLEN BURNAM, San Antonio, Tex., assignor of one-half to C. M. Hocker, San Antonio, Tex. Filed Nov. 19, 1920. Serial No. 425,179. 1 Claim. (Cl. 230—27.)

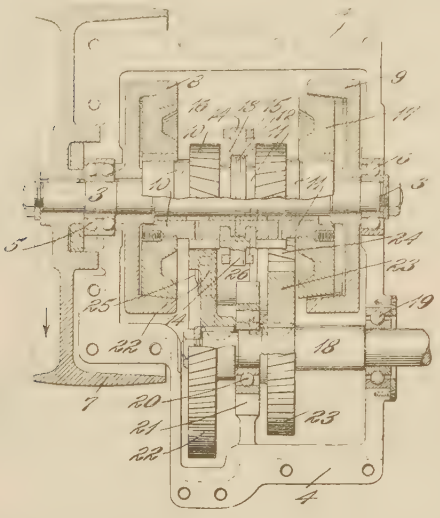


An air pump including a cylinder, a piston reciprocable therein, means controlling admission of air at opposite sides of the piston, a discharge pipe in communication with opposite end portions of the cylinder, discharge valves associated with said pipe controlling flow in opposite directions therethrough and provided with peripheral grooves, and a spring extending between said valves and at its end portions encircling the valves engaging in said grooves, the spring normally holding the valves closed.

1,414,622. POWER-TRANSMISSION MECHANISM. LIONEL A. CARTER, St. Louis, Mo. Filed Dec. 3, 1920. Serial No. 428,055. 8 Claims. (Cl. 74—59.)

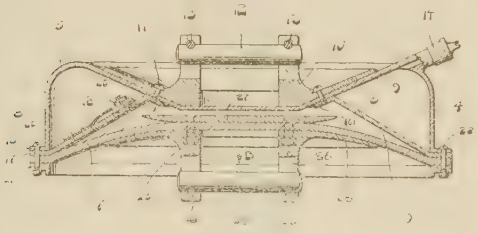
4. A power transmission mechanism comprising a drive shaft, a driven shaft, a drive wheel slidably mounted on said drive shaft, a driven wheel fixed to said driven shaft and cooperating with said drive wheel, cooperating clutch elements fixed to said drive shaft and to said drive wheel respectively, means for actuating said drive wheel to cause the clutch element thereof to engage the clutch element of

said drive shaft, said drive wheel having portions formed thereon adapted to cause an end thrust on said driving



gear sufficient to maintain the clutch element of said driving gear in operative engagement with the clutch element of said drive shaft.

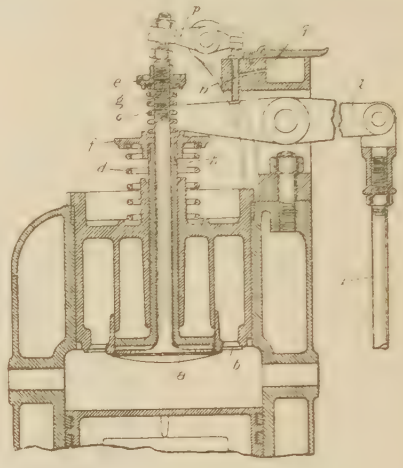
1,414,623. AIR SPRING. FRANK S. CHURCH, Cincinnati, Ohio, assignor of one-half to The Thos. J. Corcoran Lamp Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Apr. 6, 1921. Serial No. 458,984. 6 Claims. (Cl. 267—65.)



4. An air spring comprising a body having a closed top, a diaphragm closing the bottom and relatively movable with relation to the body, and a plate having a reversely curved surface in engagement with the diaphragm, adapted to present a surface of increasing area to the diaphragm as the plate is moved to flex the diaphragm toward the body, and means in the body dividing the space between the top and the diaphragm into two chambers, and adapted to permit easy passage of air from the chamber below the means to the chamber above the means and restricted passage of air from the chamber above the means to the chamber below the means.

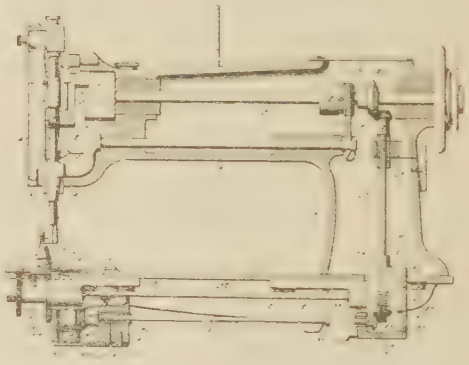
1,414,624. VALVE-CONTROLLING MECHANISM. GAETANO CORBELLA and GUALTIERO LONGONI, Milan, Italy. Filed Dec. 24, 1917. Serial No. 209,428. 3 Claims. (Cl. 123—90.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

1. In a valve controlling mechanism, the combination with two valves, of a stationary support and means for alternately operating said valves, said means comprising two valve controlling levers pivoted in said support, an actuating member adapted to move in opposite directions and so operate one of said levers, and a member interposed between said levers and movable relatively thereto



for transmitting the movements of the last mentioned lever to the other lever and reversing the direction of said movements.

1,414,625. FEEDING MECHANISM FOR SEWING MACHINES. HERBERT CORRALL, Helensburgh, and BERTRAM A. STEVENS, Clydebank, Scotland, assignors to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Oct. 27, 1919. Serial No. 333,697. 12 Claims. (Cl. 112—214.)

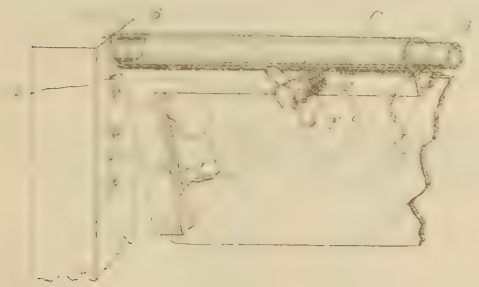


1. In a sewing machine, the combination with a cloth-plate, an overhanging arm, a needle carrying bar journaled upon said overhanging arm above said cloth-plate, means for imparting work penetrating movements to said needle, and means for imparting positive lateral movements to the needle substantially in the line of feed of the work, of continuously feeding work feeding means including a feed-wheel journaled beneath the cloth-plate upon a substantially horizontal axis and acting upon the work substantially at the point of penetration thereof by the needle, and a thread-mass carrying loop-taker journaled for rotary movement beneath the cloth-plate upon a substantially vertical axis and coacting with the needle in the formation of lock stitches.

1,414,626. AUTOMOBILE WINDSHIELD FITTING. HERBERT STANLEY COX, London, England, assignor to William J. McCrudden, Leeds, N. Y. Filed Aug. 5, 1920. Serial No. 401,551. 1 Claim. (Cl. 296—92.)

In a pivoted windshield the combination of a fixed rod B, the slotted cylindrical sleeve C, the closing screw F

serving to close the slot in the cylindrical portion thereby simultaneously clamping the cylinder C upon the rod B

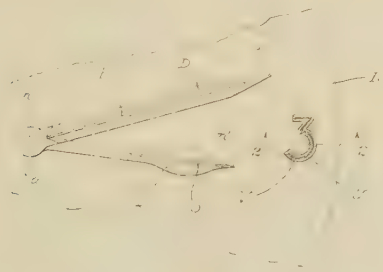


and clamping the glass firmly in position substantially as described.

1,414,627. SUSPENSION DEVICE FOR GLOBES AND REFLECTORS FOR INDIRECT AND CONCENTRATED LIGHTING. OTTO PAUL CRAMER, Geneva, Switzerland. Filed July 5, 1921. Serial No. 482,512. 4 Claims. (Cl. 240—115.)

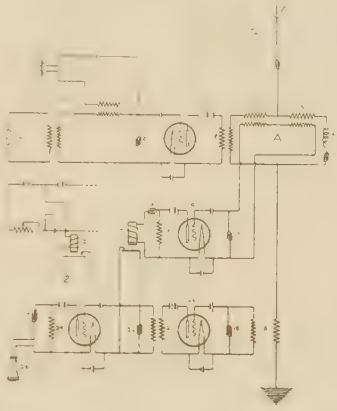
1. A suspension device for globes and reflectors for indirect and concentrated lighting, comprising portions of a circular support formed of sheet steel and bent in such a manner as to constitute spring clamps fitting tightly upon the globe, a double hook of fork shape forming part of the said clamps, cords provided with beads adapted to engage the double hooks of the said clamps, and upper hooks for suspending the globes and reflectors from the shade holder of the upper reflector.

1,414,628. DIAL AND MARKING FOR WATCHES AND LIKE ARTICLES. HERMANN F. CUNTZ, Hartford, Conn., assignor to American Radium Company, New York, N. Y., a Corporation of New York. Original application filed July 2, 1921, Serial No. 482,095. Divided and this application filed Oct. 8, 1921. Serial No. 506,312. 10 Claims. (Cl. 58—50.)



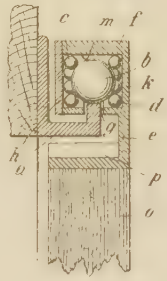
1. A reading part for a timepiece or like article comprising a base, a ridge projecting from said base forming a figure or graduation device, permanently self-luminous compound imbedded on either side of said ridge in the recess formed between the wall of the ridge and the adjacent surface of the base.

1,414,629. WIRELESS DUPLEX SIGNALING SYSTEM. MIHRAN M. DOLMAGE, Washington, D. C. Filed July 15, 1918. Serial No. 245,101. 8 Claims. (Cl. 250—6.)



6. In a system for the transmission and reception of wireless signals, the combination of an antenna, transmitting apparatus normally connected to the antenna, receiving apparatus normally connected to the antenna, connections to a wire telephone system, with circuit changing means controlled directly by electric currents predominatingly of audio frequency character and arranged to render inoperative the receiving apparatus when said system is used for transmission.

1,414,630. ROLLER FOR SLIDING DOORS AND THE LIKE. ADOLF DOWALD, Bremen, Germany. Filed Sept. 2, 1919. Serial No. 321,268. 3 Claims. (Cl. 16—88.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

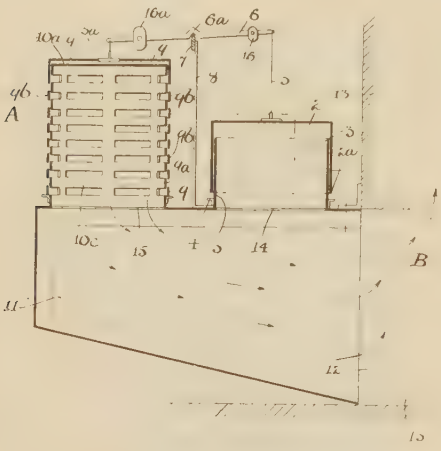


3. In a roller device for a sliding door, or the like, comprising a track, a housing for the roller bearing comprising a single block, a cylindrical chamber within the block, said chamber opening at one end of the block for admitting the bearing rollers, a lid for closing the open end of said chamber, and a lateral slot in the wall of said chamber for admitting the track into contact with said rollers.

1,414,631. APPARATUS FOR CONTROLLING THE DRAFT ON FURNACES. JONAS WILFRID DRAKE, Halifax, England. Filed Mar. 10, 1917. Serial No. 154,063. 3 Claims. (Cl. 236—45.)

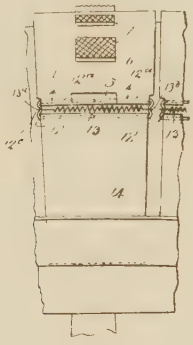
2. In an apparatus for the purpose described, the combination of a chimney having two openings to the outer air formed therein, a valve supported to close one of said

openings, means controlling the admission of air to the other opening comprising a stationary slotted member



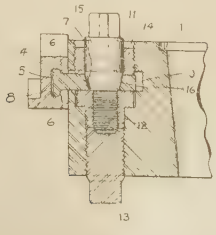
and a movable slotted member, and arms extending from the valve and supporting said movable slotted member.

1,414,632. TIRE PROTECTOR. PAUL ECHTER, New York, N. Y. Filed Jan. 2, 1919. Serial No. 269,291. 6 Claims. (Cl. 152—16.)



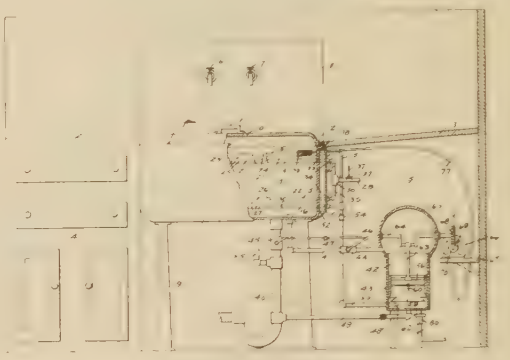
5. An anti-skid device for tires comprising spaced outer and inner curved plate like members having eyes at their ends to register, the outer member having holes, studs removably retained in said holes and retainers having substantially parallel spaced arms, arms of two retainers at the ends of said members being located in said eyes, and other arms of said retainers being spaced from said members to receive straps.

1,414,633. CUTTER-HEAD MECHANISM. JOEL B. ETTINGER, deceased. Portland, Oreg., by Grace A. Ettinger, administratrix. Portland, Oreg. Filed June 1, 1921. Serial No. 474,191. 8 Claims. (Cl. 144—218.)



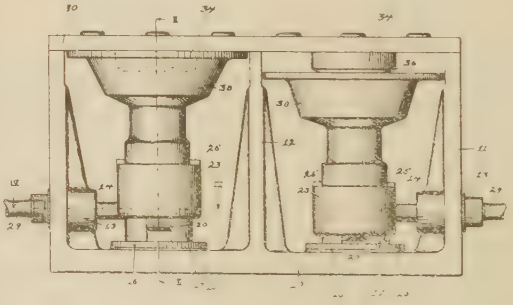
1. The combination with a cutter-head, of a tool, a tool clamping member adjustably engaging the tool, adjustable positioning devices arranged in the head on opposite sides of the tool clamping member, the latter having a transverse tapered opening therein, and a locking bolt passing through one of said positioning devices and having threaded engagement with the other of said positioning devices, the locking bolt having a tapered locking portion engaging the aforesaid tapered opening.

1,414,634. DISHWASHING MACHINE. JULIUS FASSIO, San Francisco, Calif. Filed Oct. 13, 1919. Serial No. 330,243. 6 Claims. (Cl. 141—9.)



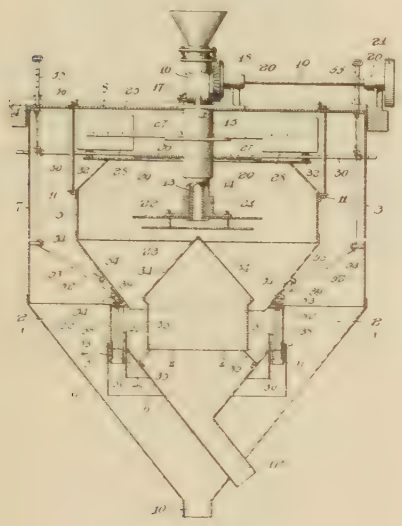
3. A dish washing receptacle having sets of channels formed in opposed sides thereof, certain channels on each side being disposed adjacent the upper edge and certain adjacent the lower edge of the side, plates closing the channels and having openings therein registering with the channels, a clear rinsing water supply line connected with certain upper and lower channels on each side of the receptacle, a pump, means to supply water to the pump and circulating pipes leading from the pump to the other of the upper and lower channels on each side of the receptacle to wash objects in the receptacle.

1,414,635. DRILL JIG. LEWIS FINE, Philadelphia, Pa., assignor, by mesne assignments, to Budd Wheel Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 7, 1918. Serial No. 238,696. 7 Claims. (Cl. 77—62.)



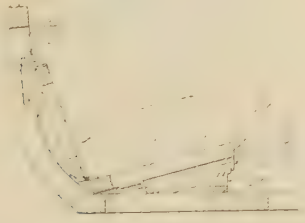
1. In a device of the class described, the combination of a base; spaced pedestals on said base; a plate mounted on said pedestals and provided with spaced openings adapted for receiving the drill; spaced upright members intermediate of said pedestals; a shaft journaled in one of said pedestals and the said intermediate spaced members; a sleeve about said intermediate members and adapted for seating a hub; and co-acting means on said sleeve and shaft whereby the sleeve is raised when the shaft is rotated.

1,414,636. AIR SEPARATOR. RUBERT M. GAY, Hanover Township, Morris County, N. J., assignor to Emerick Mill Co., Easton, Pa., a Corporation of Pennsylvania. Filed Feb. 7, 1920. Serial No. 356,989. 16 Claims. (Cl. 83—40.)



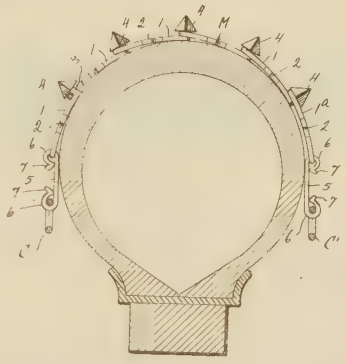
1. In an air separator, the combination of an outer casing, a vertically extending receptacle supported within the casing in spaced relation thereto, said receptacle having an air outlet opening in the top wall thereof and having an air inlet opening in the lower portion thereof, a circular series of damper plates having outwardly diverging side edges and adjustable radially to vary the size of the outlet opening, means operative to cause air to circulate up through the receptacle and down through the casing exteriorly of the receptacle, and means to feed material to the receptacle.

1,414,637. RECLINING ADJUSTABLE CHAIR AND SEAT. ALBERT EDWIN GELL, Sydney, New South Wales, Australia. Filed Jan. 5, 1922. Serial No. 527,260. 2 Claims. (Cl. 155—116.)



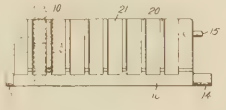
1. A seat comprising a fixed back frame, a false back frame capable of being moved forwardly and rearwardly at its lower end whereby its reclining angle may be varied, a bottom frame, a bottom cushion supported upon the bottom frame, and a back cushion fastened at its top edge to and flexibly suspended from the fixed back frame and loosely disposed to slide relative to the false back frame, the point of attachment of the back cushion to the fixed back frame constituting a flexible joint permitting said back cushion to be raised bodily with respect to the false back and said back cushion being disposed with its lower portion overlying the top of the bottom cushion for movement thereover.

1,414,638. TREAD MEMBER FOR ANTISKIDDING DEVICES. WALTER H. GROVE, Tyrone, Pa. Filed Feb. 25, 1922. Serial No. 539,178. 4 Claims. (Cl. 152—14.)



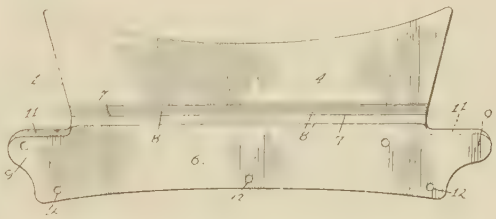
1. A tread member for non-skidding devices comprising a plurality of inseparable sections, each of said sections being in the form of an elongated loop, the side member of each of the sections substantially midway of the length thereof being spaced apart a distance greater than the space between the remaining portions of the arms, the end portion of one of the sections being provided with a shank insertable through a second section and a head carried by the outer end of said shank, said head being insertable through the increased space between the center portion of the side members of a second section, the major diameter being greater than the width between the remaining portions of the side members.

1,414,639. CALCULATING MACHINE. FREDERICK A. HART, New Britain, Conn., assignor to Remington Accounting Machine Corporation, New York, N. Y., a Corporation of New York. Filed June 30, 1921. Serial No. 481,595. 5 Claims. (Cl. 235—59.)



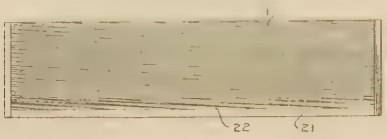
1. In a calculating machine, a feeler piece consisting of an integral bar of metal with grooves milled in it so as to leave a back wall with integral feeler fingers projecting forward from said wall, said wall extending lengthwise of said fingers.

1,414,640. RUBBER COLLAR. TAKEBE HASE, San Francisco, Calif. Filed Aug. 18, 1920. Serial No. 404,312. 4 Claims. (Cl. 2—67.)



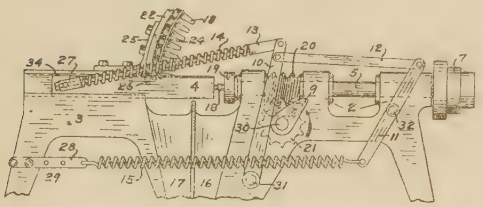
1. A fold down rubber collar comprising an outer ply; an inner ply secured thereto and formed in portions constituting a neck band and a turn down portion, said portions arranged to meet along the line of fold; and beveled edges formed upon the inner ply portion adjacent the line of fold to reduce the thickness of the collar when folded thereon.

1,414,641. THREAD-ROLLING DIE. RICHARD M. HEAMES, Detroit, Mich., assignor to The Vixson Company, Detroit, Mich., a Corporation of Michigan. Filed June 28, 1920. Serial No. 392,397. 9 Claims. (Cl. 80—9.)



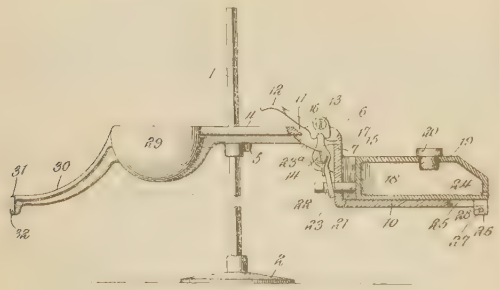
1. As an article of manufacture, a thread rolling die comprising an elongated block having longitudinal serrations the ends of which are chamfered at one of the longitudinal edges of said block.

1,414,642. AUTOMATIC BLANK-DRESSING MACHINE. RICHARD M. HEAMES, Detroit, Mich., assignor to The Vixson Company, Detroit, Mich., a Corporation of Michigan. Filed Oct. 7, 1920. Serial No. 415,388. 15 Claims. (Cl. 10—9.)



15. In combination, a carrier having a pair of transversely movable jaws provided with inclined grooves for guiding a blank toward the axis of said carrier, means for feeding blanks in succession to the portion of said grooves remote from the carrier axis, and means for reciprocating said carrier to advance the successive blanks along said grooves and toward said axis.

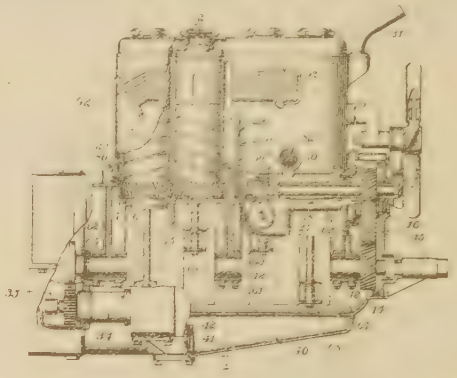
1,414,643. GARMENT MARKER. ADOLPH HEBD, Youngstown, Ohio. Filed Oct. 21, 1920. Serial No. 418,453. 6 Claims. (Cl. 33—9.)



1. In a garment marker, in combination with a support and a guide-way carried thereby, a marking device comprising a powder carrying case slidably mounted in said guide-way and provided at its forward end with one or more jet orifices, and manually operated mechanism for imparting to said case a reciprocal motion in said guide-way.

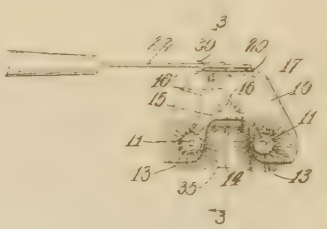
1,414,644. LUBRICATION OF INTERNAL-COMBUSTION ENGINES. CLARENCE P. HOLLISTER, New York, N. Y. Filed Feb. 28, 1918. Serial No. 219,623. 3 Claims. (Cl. 123—196.)

1. The method of lubricating those portions of rotary sleeve valves of internal combustion engines exposed to the impact of the inlet gases which comprises preheating the air supplied to the carbureter, and impregnating said preheated air with an oil spray or oily mist, conducting



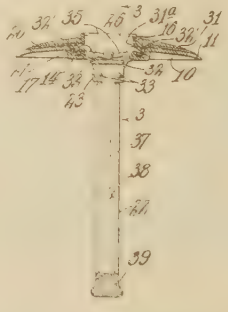
the mixture through a channel having a water-jacketed wall to prevent over-heating, and introducing the resulting homogenous mixture into the carbureter.

1,414,645. TOOTHBRUSH. PHILLIP IROFF, Brooklyn, N. Y. Filed May 10, 1921. Serial No. 468,392. 6 Claims. (Cl. 15—22.)



1. A toothbrush having a pair of opposed rotary brushes, and means for rotating said brushes, and a fixed brush disposed at a point intermediate said rotary brushes.

1,414,646. SAFETY RAZOR. PHILLIP IROFF, Brooklyn, N. Y. Filed June 27, 1921. Serial No. 480,532. 7 Claims. (Cl. 30—12.)



3. In a safety razor, a holder plate, a handle fixed thereto, a cover plate, and locking means for said plate having an operating element extending rearwardly through said handle, said locking means comprising a pair of pivoted latches, and toggle links connected to said latches and said operating element.

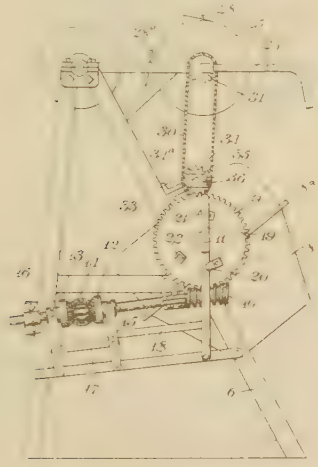
1,414,647. TOOTH CERVICAL CLAMP. JAMES W. IVORY, Philadelphia, Pa. Filed Dec. 23, 1921. Serial No. 524,367. 3 Claims. (Cl. 32—19.)

3. In a tooth cervical clamp, a frame, one member of which is provided with a depending limb, tooth clamping

jaws one of which is sustained on said limb, and the other jaw is adjustably supported on and secured to an

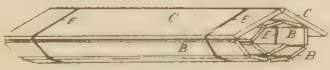
opposite member of the frame, and a screw fitted to said limb adapted to engage the adjacent jaw.

1,414,648. CONCRETE-MIXING MACHINE. GEBHARD JAEGER, Columbus, Ohio. Filed Sept. 25, 1920. Serial No. 412,837. 5 Claims. (Cl. 83—73.)



1. In a mixing machine, the combination with a mixing drum having an opening for the reception of the materials to be mixed and means for oscillating the same from discharging position to charging position, a water vessel mounted on a fixed axis to swing above the path of the opening of the drum and intermediate the said charging and discharging positions of the opening of the drum and driven means for automatically turning said water vessel to discharge water into the mixing drum when the latter is moving from discharging to charging position.

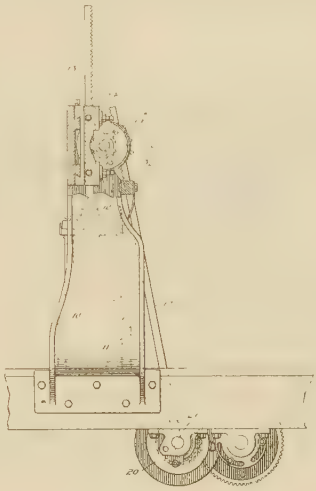
1,414,649. FRUIT-DRYING TRAY. WILLIAM H. JONES, Sanger, Calif. Filed Nov. 30, 1921. Serial No. 518,798. 1 Claim. (Cl. 34—17.)



A drying tray composed of a plurality of small slats and two wider boards hinged together, the wider boards adapted to form a roof over the balance of the tray when rolled, substantially as described.

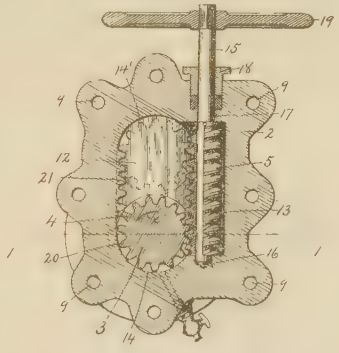
1,414,650. PLUNGER LIFTER. FRANK M. JOSLIN, Amsterdam, N. Y., assignor to Inman Manufacturing Company, Inc., Amsterdam, N. Y., a Corporation of New York. Filed Mar. 29, 1920. Serial No. 369,489. 4 Claims. (Cl. 74—27.)

1. In a device of the kind described a shaft, means for rotating the same in opposite directions, a reciprocating plunger, means for causing reciprocation of said plunger as said shaft is rotated in opposite directions, a sleeve nonrotatably secured to said shaft, a coiled spring surrounding said shaft and secured at one end to said sleeve, a second sleeve to which the other end of said spring is



secured, said second sleeve being rotatably mounted on said shaft, whereby the tension of said spring may be altered, and means for holding said second sleeve in fixed position as said shaft is rotated in opposite directions.

1,414,651. BLOW-OFF VALVE. WILLARD A. KITTS, Jr., Paterson, N. J. Filed Jan. 27, 1920. Serial No. 354,413. 1 Claim. (Cl. 251—54.)

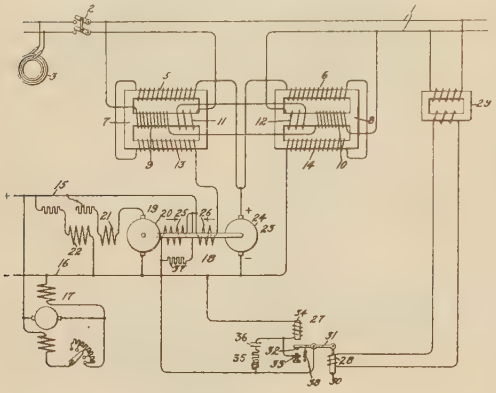


A blow-off valve of the character described, comprising a valve case having a passage therethrough, a valve disc movable to and from a position across said passage and provided with peripheral gear teeth, a rotary worm in direct engagement with the gear teeth at one side of the disc, means for rotating the worm, and a toothed rack for engaging the teeth at the opposite side of the disc and causing said disc to move with a rotary motion to and from a position across the passage as the worm is rotated in reverse directions, the relation of the gear teeth of the disc and rack permitting the gear teeth of the disc to be moved out of engagement with the rack when adjusted to one of its extreme positions to allow said disc to be rotated in one direction without engaging the teeth of the rack.

1,414,652. REGULATING SYSTEM FOR ALTERNATING-CURRENT CIRCUITS. WALLACE B. KIRKE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 10, 1920. Serial No. 388,041. 4 Claims. (Cl. 171—242.)

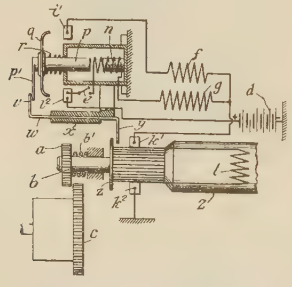
1. The combination with an alternating current circuit of means for regulating an electrical condition thereof com-

prising a plurality of magnetic cores, windings thereon connected to modify said electrical condition, magnetizing windings on said cores, and means for supplying said magnetizing windings with different values of direct current, said means comprising a source of direct current



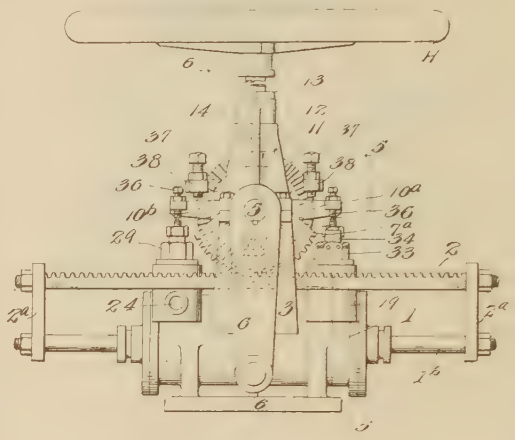
connected in series with said magnetizing windings, a second source of direct current connected to the terminals of one of said magnetizing windings, and means responsive to an electrical condition of said alternating current circuit for varying the voltage of said second source.

1,414,653. ELECTRIC-MOTOR-STARTING DEVICE FOR INTERNAL-COMBUSTION ENGINES. FRANZ KRATZ, Stuttgart, Germany, assignor to Robert Bosch Aktiengesellschaft, Stuttgart, Germany, a Firm. Filed Aug. 20, 1919. Serial No. 318,808. 4 Claims. (Cl. 290—38.)



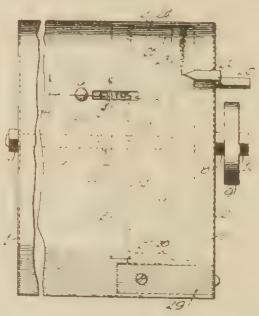
1. In a starting device for internal combustion engines, the combination of a driving member for the engine, a movable coupling member adapted to engage said driving member, an electric motor for rotating and shifting said member, and means for first obtaining a period of slow rotation of said coupling member and, after the beginning of engagement between said coupling member and said driving member, a period of more rapid rotation, said means comprising a field winding on said motor subdivided into a portion of higher resistance and a portion of lower resistance, and suitable connections therefor, said connections including an electro-magnet and a switch connected in series with said portion of the field winding of higher resistance, and a contacting device, actuated by said movable member and held in closed position by said electro-magnet, and effecting the connection of said portion of the field winding of lower resistance in parallel with said series circuit, for producing said period of more rapid rotation.

1,414,654. CONTROLLING MECHANISM. LINCOLN A. LANG, Chicago, Ill., assignor to The Northern Trust Company, trustee, Chicago, Ill., a Corporation of Illinois. Filed June 28, 1916. Serial No. 106,496. 3 Claims. (Cl. 121—41.)



1. In a servo-motor, the combination of a hand-controlling member, a member controlled thereby and movable by power, fluid pressure mechanism for moving said controlled member to and fro, and valve mechanism for delivering and discharging fluid to and from said fluid-operating mechanism, said valve mechanism being mechanically connected to both of said members and arranged to be actuated by movement of either of said members relative to the other, and including a pair of inlet popet valves adapted to open alternately upon actuation of said valve mechanism in opposite directions, at least one of said valves always being open, and a pair of poppet exhaust valves also alternately operable by opposite movements of said valve-actuating mechanism, and adapted to remain in closed contemporaneously during a substantial movement of said controlled member.

1,414,655. TOY ADDING MACHINE. ARTHUR EDWARD LARSON, Chicago, Ill. Filed Feb. 7, 1921. Serial No. 443,129. 1 Claim. (Cl. 235—66.)



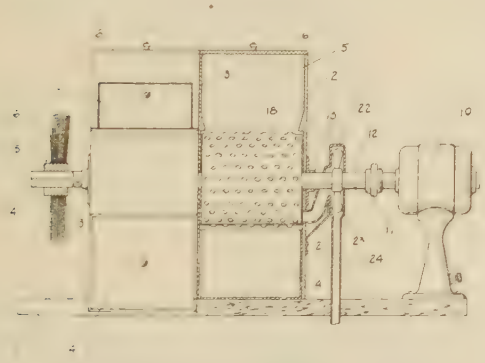
A toy adding machine comprising a casing having a cylindrical-shaped top, and having an arcuate slot in one side thereof, a shaft carried by said casing, a disc carried by said shaft, a second disc rotatably carried by said casing, said second named disc being disposed adjacent to said first named disc, and having numbers thereon, said casing having an elongated opening adapted to show only one number on each of said discs at a given time, a wheel secured to said shaft, said wheel when oscillated being adapted to rotate said first named disc, an arm carried by said wheel and projecting through the arcuate slot, a series of numbers on the outer cylindrical surface of said

casing, said last named numbers being spaced the same distance apart as the numbers on said first named disc, and a pointer carried by said handle and being disposed over the numbers on said casing.

1,414,656. MOUNTING FOR PORTRAITS AND PHOTOGRAPHS. JOAQUIN MARCELINO Y DIAZ, Habana, Cuba. Filed Mar. 12, 1921. Serial No. 451,895. 1 Claim. (Cl. 40—158.)

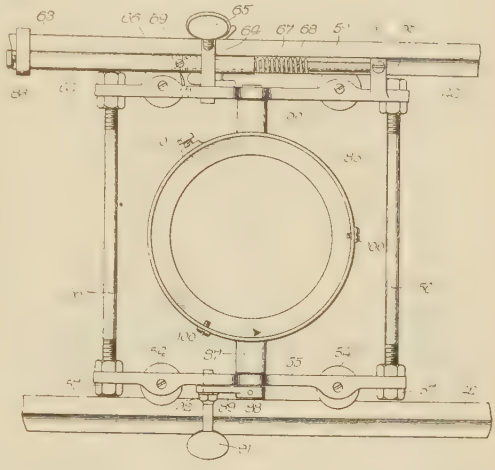
A backing or mount for photographs, pictures or the like, made of pieces of wood veneer arranged back to back and cemented to one another so as to form a block, on one face of which the picture is attached, said block being cut away to conform precisely to the contour of the object photographed, and having its marginal edge beveled inwardly continuously.

1,414,657. GRATER. BOYD F. MERTZ and GEORGE P. MERTZ, Northumberland, Pa. Filed May 18, 1920. Serial No. 382,216. 1 Claim. (Cl. 146—9.)



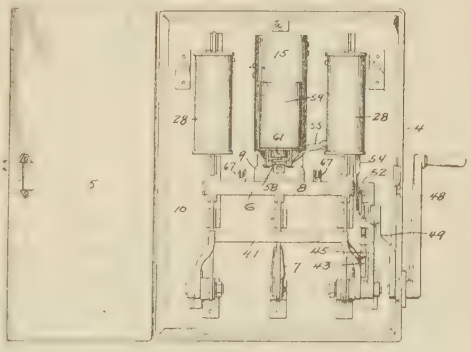
An apparatus for grinding horseradish and like products having a casing provided with a motor driven grinding cylinder and fitted with a movable drawer in receiving relation with the cylinder and adapted to be opened from time to time to permit of the removal of the ground product, and a suction fan actuable by the cylinder driving motor and having a suction spout communicating with the interior of the cylinder casing at a point adjacent to the periphery of the drum and above the upper edge of the front end of the drawer for producing an inward current of air when the drawer is opened, said fan being provided with a discarge pipe having its outlet at a point remote from the casing.

1,414,658. X-RAY STAND. WILLIAM MEYER, Chicago, Ill. Filed Feb. 18, 1918. Serial No. 217,738. 11 Claims. (Cl. 250—34.)



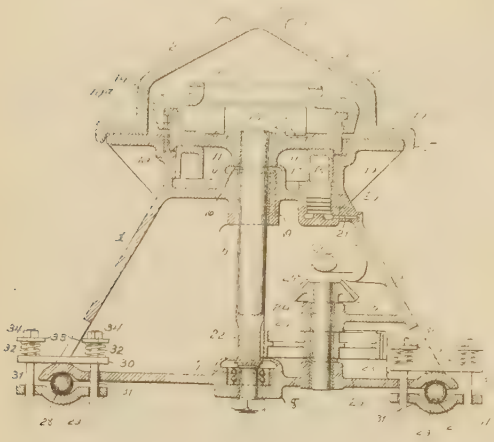
2. In combination, a supporting standard, a member movable along said standard, a stud projecting from said member, a frame member pivoted on said stud, a split clamping member encircling said stud, and a screw carried by said frame member adapted to engage said clamping member to clamp the same about said stud.

1,414,659. CIRCUIT BREAKER. BENJAMIN M. MOOERS, San Francisco, and LAWRENCE E. WARNER, Berkeley, Calif., assignors to Motor Protector Manufacturing Company, San Francisco, Calif., a Corporation of California. Filed Sept. 19, 1917. Serial No. 192,199. 9 Claims. (Cl. 175—294.)



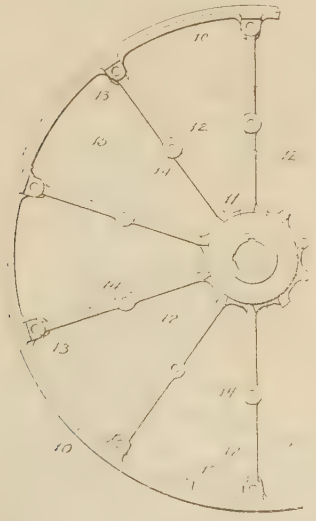
1. A protective device for an electric circuit containing electrical apparatus, comprising a switch, means operative by an increase in temperature of the apparatus for releasing the switch, a handle for closing the switch and means operative by the temperature controlled means for releasing the handle from the switch.

1,414,660. METHOD AND APPARATUS FOR SHAPING HOT-METAL BLANKS. WILLIAM HENRY MORGAN, Alliance, Ohio. Filed June 13, 1919. Serial No. 303,874. 6 Claims. (Cl. 29—1.)



1. The method herein described of shaping metal parts consisting in forming a blank, heating it to a high temperature, placing the heated blank in a shaping device centrally with relation to the axis of said shaping device and rapidly rotating the latter and the blank.

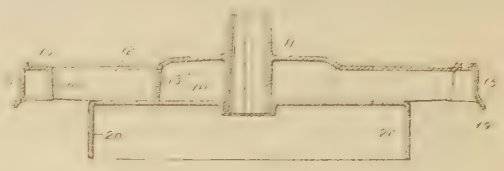
1,414,661. CAST METAL WHEEL. WILLIAM HENRY MORGAN, Alliance, Ohio. Filed May 25, 1921. Serial No. 472,369. 7 Claims. (Cl. 301—65.)



1. As a new article of manufacture, a wheel comprising a hub, spokes, and full width felly all cast integral, the spokes being elongated transversely in cross section and located approximately central with relation to the full width felly and enlarged bosses at the juncture of the spokes and felly having openings therethrough for the passage of the rim securing bolts.

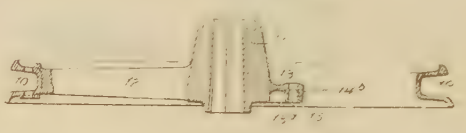
1,414,662. CAST METAL WHEEL. WILLIAM HENRY MORGAN, Alliance, Ohio. Filed June 22, 1921. Serial No. 479,616. 6 Claims. (Cl. 301—65.)

1. As a new article of manufacture, a metal wheel comprising a hub, hollow web having a marginal flange, spokes and a hollow felly all cast integral, the web merging into the spokes and provided with reinforcing



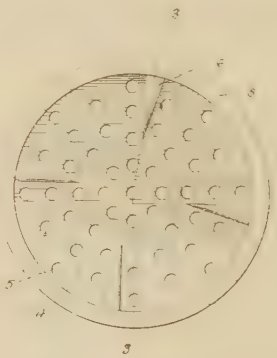
ribs located in planes intermediate the spokes and extending from the marginal flange of the web to the hub.

1,414,663. CAST METAL WHEEL. WILLIAM HENRY MORGAN, Alliance, Ohio. Filed June 29, 1921. Serial No. 481,279. 8 Claims. (Cl. 301—65.)



1. As a new article of manufacture, a wheel comprising a hub, spokes and felly all cast integral, the spokes being elongated transversely and the felly U-shaped in cross section with its opening at the periphery and provided with marginal flanges at the sides of the opening which form the seat for a demountable rim.

1,414,664. GAS-HEAT RETAINER AND FLAME CLEANSER. ELMER GRAYBILL NEUSCHWANGER, Kansas City, Kans. Filed Dec. 27, 1920. Serial No. 433,541. 3 Claims. (Cl. 158—113.)

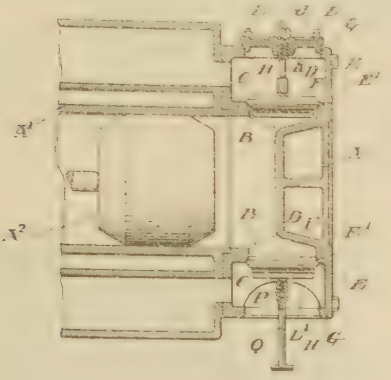


1. In a gas retainer and flame cleanser for gas stoves composed of asbestos throughout of varying density, of hollow cylindrical form having one end open, the other end partially closed, the partially closed end having unmerous cylindrical apertures.

1,414,665. VALVE-SEAT RETAINER. FREDERICK W. PARSONS, Elmira, N. Y., assignor to Ingersoll-Rand Company, Jersey City, N. J., a Corporation of New Jersey. Filed Jan. 19, 1922. Serial No. 530,350. 2 Claims. (Cl. 103—53.)

1. In a compressor, a compressor head having a valve seat opening in its inner wall adapted to receive a valve seat carrying a valve, the outer wall of the head having a corresponding opening adapted to be closed by a cover carrying an adjustable valve securing device, and a valve retainer in the form of a bow shaped spring clip carried

by the valve structure and adapted to engage the outer wall of the compressor head and remain in the head for

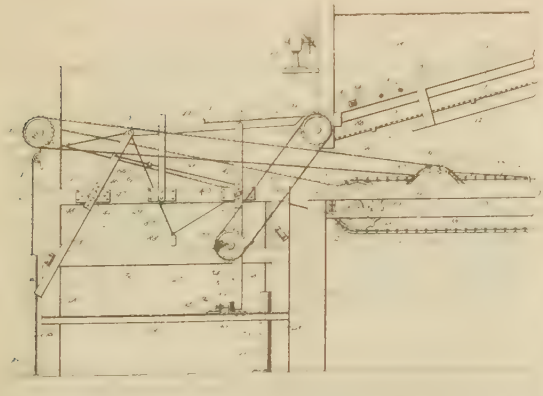


retaining the valve seat in position in the valve seat opening until the cover and valve securing device are adjusted.

1,414,666. THEFT PREVENTER. JOSEPH POLIVKA, Brooklyn, N. Y. Filed July 20, 1921. Serial No. 486,034. 6 Claims. (Cl. 40—132.)

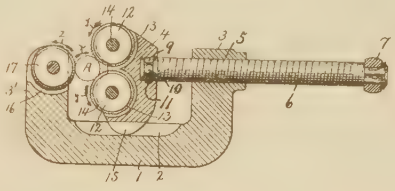
6. A device of the character described comprising a stationary member and a removable member both bearing similar designs, means for illuminating said members, a supplemental illuminating means adjacent thereto and means for obliterating said supplemental illuminating means when said design bearing members are exposed and means for securing said obliterating means over said design bearing members.

1,414,667. MECHANISM FOR TRANSFERRING PANS OR OTHER OBJECTS FROM ONE CONVEYER TO AND OPPOSITELY-MOVING CONVEYER. PETER RASMUSSEN, Denver, Colo., assignor of one-half to Stephen Knight, Denver, Colo. Filed Aug. 30, 1920. Serial No. 406,927. 8 Claims. (Cl. 198—84.)



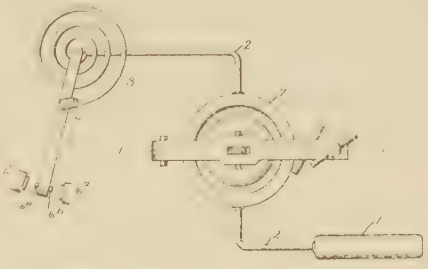
1. In a machine of the character described, the combination with oppositely moving, pan-forwarding conveyers, arranged one above the other, of a frame in line with the lower conveyer, a shaft on said frame, a shaft supported above the adjacent end portion of the lower conveyer, sprocket wheels on said shafts and chains connecting said wheels; the shaft on said frame being driven from said conveyer and in the same direction, arms pivoted to said frame between said chains for receiving pans from the top conveyer, cams for swinging said arms out of receiving position and below the level of said chains, whereby the pans are deposited upon the chains, which deliver them to the lower conveyer, said pans being of greater length than the space between the chains; weights for swinging said arms back into pan-receiving position, and means operated by the upper conveyer for actuating said cams.

1,414,668. KNURLING TOOL. FRED A. REED, Syracuse, N. Y. Filed Apr. 16, 1921. Serial No. 462,008. 6 Claims. (Cl. 80—5.1.)



6. A knurling tool comprising a —U— shaped frame having a lengthwise guide-way along its base, a carriage movable along said guide-way between the arms of the frame, a screw spindle engaged in a threaded aperture in one of said arms for adjusting the carriage along the guide-way, a pair of knurling wheels mounted on the carriage to revolve about axes at opposite sides of and at right angles to the axis of the screw spindle, and an additional knurling wheel mounted upon the other arm of the frame to revolve in a plane at an angle to the plane of rotation of the first named wheels for automatically feeding the tool along the work during the knurling operation.

1,414,669. TEMPERATURE-REGULATING DEVICE. LUDWIG REICHOLD, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed Aug. 6, 1919. Serial No. 315,782. 4 Claims. (Cl. 297—3.)

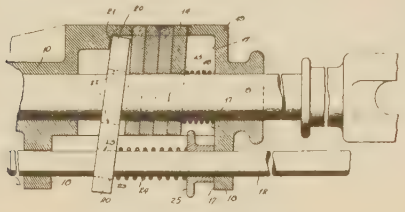


1. A temperature regulating device comprising a closed vacuum system containing an incompressible thermometric material, a pressure coil, and diaphragmatic expansion chamber having unyielding means cooperating with the sides thereof whereby said coil is controlled by varying the vacuum of said system to the equivalent volume of the thermometric material at the temperature at which said coil is to operate.

1,414,670. WATERPROOFING MATERIAL. JACOB R. ROETHER, Brooklyn, N. Y. Filed Nov. 5, 1920. Serial No. 421,851. 12 Claims. (Cl. 134—15.)

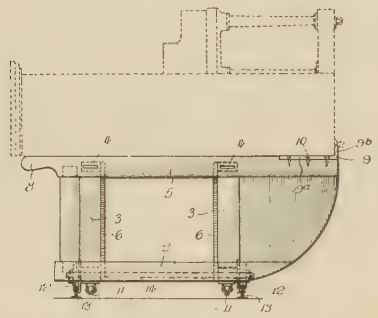
12. The water-proofing material which comprises a neutral soap formed from an animal fat and a vegetable oil, paraffin, cumarone resin and linseed oil.

1,414,671. SLACK ADJUSTER. WILLIAM H. SAUVAGE, Flushing, N. Y., assignor, by mesne assignments, to Gould Coupler Company, New York, N. Y. Filed Feb. 6, 1920. Serial No. 356,751. 11 Claims. (Cl. 188—199.)



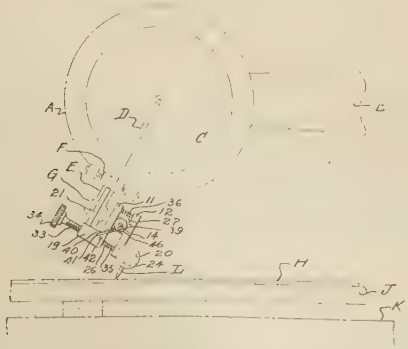
5. In a slack adjuster, in combination, a two part telescopic push rod including a rod and a tubular member connected therewith, a housing associated with the tubular member having two fulcrums, two sets of dogs within said housing coacting with said rod and an adjusting rod associated therewith with which the other set of dogs coact.

1,414,672. TRUCK. OTTO SCHULZ, Chicago, Ill. Filed Feb. 9, 1921. Serial No. 443,506. 7 Claims. (Cl. 105—215.)



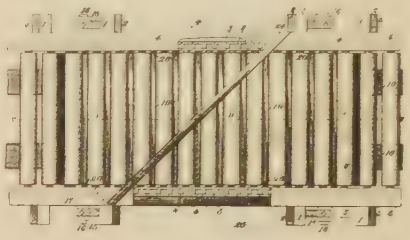
1. A truck having floor rollers, track wheels and an upper supporting frame extending transversely to the direction of movement of the truck and overhanging one side thereof, and a device on the overhanging end of said frame adapted to engage an angular shaped body when the truck is tilted transversely about the rollers and wheels as pivots.

1,414,673. SOUND MODULATOR FOR PHONOGRAPHS. NILS SEAHOLM, Mount Vernon, N. Y. Filed Dec. 24, 1920. Serial No. 432,994. 14 Claims. (Cl. 274—37.)



1. In a sound modulator for phonographs, the combination with the sound box and vibrating lever of the latter, of an attachment comprising a member carried by said lever, another member yieldably connected thereto adapted to receive a stylus, and means for varying the interrelative rigidity between said members.

1,414,674. CONVEYING APPARATUS. BRONSON C. SKINNER, Dunedin, Fla., assignor to Skinner Machinery Company, Dunedin, Fla., a Corporation of Florida. Filed Mar. 19, 1921. Serial No. 453,599. 7 Claims. (Cl. 198—183.)

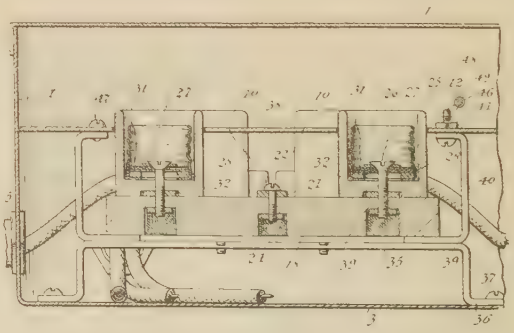


1. An endless conveyer consisting of a flexible propelling member, a plurality of parallel spaced roller conveyers carried thereby, a guide therefor, a plurality of parallel spaced filler members for projecting upwardly between said rollers during a portion of their travel, endless members for mounting and uniting said filler members, an inclined supporting track for causing the gradual movement of said members into and from operative position between said rollers, and a member disposed transversely of the roller conveyer at the point of co-operation therewith of said filler members for moving the material conveyed thereby transversely thereof.

1,414,675. FOOD PRODUCT. JOEL STARRELS, Niagara Falls, N. Y. Filed Nov. 24, 1919. Serial No. 340,217. 1 Claim. (Cl. 99—13.)

A food product simulating butter for cooking purposes consisting of a mixture of a hydrogenated fat and a fluid oil, one of said materials having a natural color characteristic capable of giving said mixture an inherent color simulating butter, said materials being in proportion to give said mixture the color and consistency of butter.

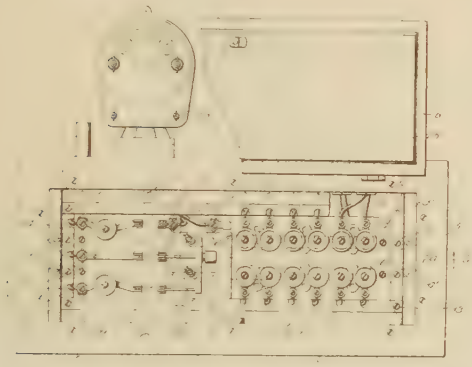
1,414,676. PANEL BOARD AND PANEL-BOARD CONSTRUCTION. HENRY F. STARRETT, Chicago, Ill., assignor to Starrett Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed May 15, 1918. Serial No. 234,587. 11 Claims. (Cl. 247—10.)



1. A panel-board construction comprising, in combination, a panel-box enclosure, a panel-board unit, circuit-controlling apparatus carried thereby, a cover-plate for said panel-board unit, a bracket for mounting said unit in said enclosure and a second bracket interposed between

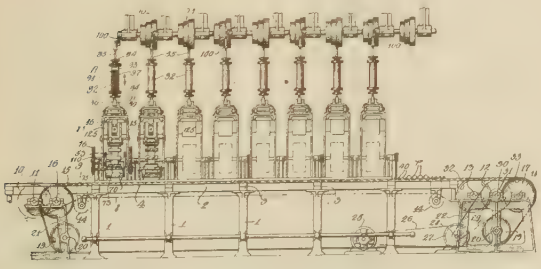
said unit and said first bracket, said second bracket serving for mounting said cover-plate, the said cover-plate being positioned inside the said panel box enclosure and covering all the wiring and terminal connections associated with the panel-board, said brackets and panel-board unit being assembled as a physical entity, and means whereby said entity can be quickly and easily mounted in and removed from said panel-box enclosure.

1,414,677. PANEL BOARD AND PANEL-BOARD CONSTRUCTION. HENRY F. STARRETT, Chicago, Ill., assignor to Starrett Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed May 15, 1918. Serial No. 234,588. 14 Claims. (Cl. 247—10.)



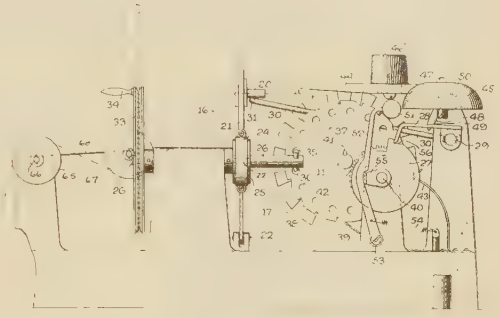
1. A panel board and panel-box construction comprising a panel-box and a panel-board mounted therein and spaced apart from the sides and ends of the box forming a wiring gutter, a gutter-covering frame surrounding and snugly fitting around said panel-board and covering said wiring gutter, the said frame having notches cut therein which permit the passage of wires therethrough, whereby said frame serves as a cover-plate for said gutter and as a barrier through which said wires are fed to the panel-board.

1,414,678. PACKAGE-HANDLING AND LABEL-PREPARING MECHANISM. JAMES C. THOM, Chicago, Ill., assignor to Combination Machine Company, New York, N. Y., a Corporation of Delaware. Filed Feb. 28, 1921. Serial No. 448,491. 26 Claims. (Cl. 216—9.)



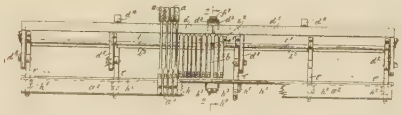
1. In package handling mechanism, a row of label preparing mechanisms and parallel package conveyors common to all of said mechanisms and moving at one side of said row and in juxtaposition thereto.

1,414,679. COIL-WINDING MACHINE. EUGENE T. TURNEY, Holmes, N. Y., assignor to Eugene T. Turney Laboratories, Inc., Newark, N. J., a Corporation of New York. Filed Mar. 22, 1921. Serial No. 454,558. 19 Claims. (Cl. 242—25.)



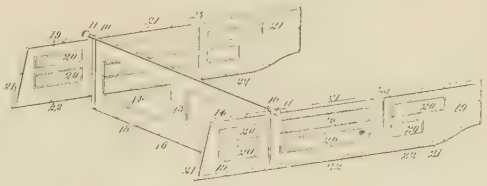
1. In a machine of the character disclosed, means for rotating a slotted core, a wire guide, means for traversing said wire guide to the opposite sides of the central plane of the slotted core to thereby lay the wire in the slots in the rotation of the core and means for gradually lowering said guide with respect to the axis of the core as the wire builds up in the slots.

1,414,680. PIANISSIMO DEVICE FOR PLAYER PIANOS. FERNANDO A. WESSELL, Red Bank, N. J. Filed May 19, 1921. Serial No. 470,991. 6 Claims. (Cl. 84—35.)



1. In a piano action, the combination with the hammers and their actuating devices, of a divided rest rail, a divided lost motion preventive rod and co-operating devices, operative connections whereby each section of the lost motion preventive rod is actuated with the corresponding section of the rest rail and means to move the sections of the divided rest rail to short stroke position independently or together.

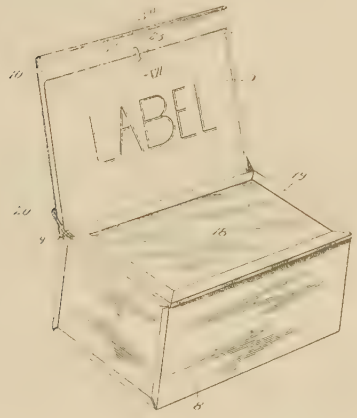
1,414,681. VEHICLE CURTAIN CONSTRUCTION AND MOUNTING. ALLEN W. WIDENHAM, Oakland, Calif. Filed Mar. 7, 1921. Serial No. 450,226. 3 Claims. (Cl. 296—141.)



1. In combination with a vehicle and its associated top, of side curtains for positioning to close the spaces at opposite sides of the vehicle between the vehicle side wall

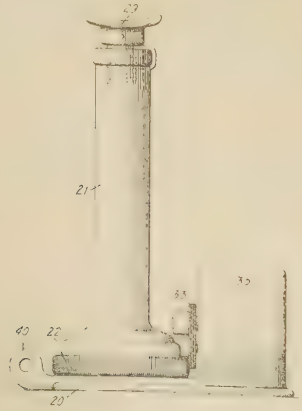
edge and top edge, said curtains at opposite sides of the vehicle consisting of united sections foldable one upon the other, a supporting rod extending transversely of the vehicle top and secured at its ends thereto approximately midway of the length of said top, a curtain mounting rod fulcrumed to each end of said supporting rod to swing about the same, said mounting rods extending transversely across said curtains and providing a support for the edge thereof when said curtains are folded and said rods are swung upwardly about said supporting rod.

1,414,682. RETAIL BOX CONTAINER. ALBERT R. ZAUTNER, Cleveland, Ohio. Filed Mar. 19, 1921. Serial No. 453,649. 16 Claims. (Cl. 217—58.)



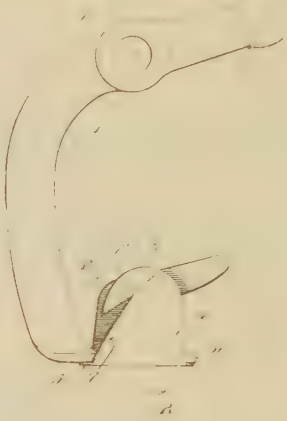
1. In combination a fibre box and a metal box enclosing the first, each of said boxes being provided with a cover, and means for attaching one cover to the other.

1,414,683. ELECTRIC LIFTING JACK. JOSEPH A. ANGLADA, Jenkintown, Pa., assignor of one-half to Charles S. Ackley, New York, N. Y. Filed July 14, 1919. Serial No. 310,652. 8 Claims. (Cl. 254—103.)



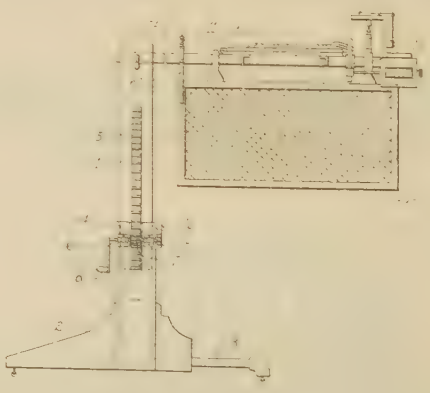
1. A lifting jack comprising a pair of relatively movable members, an electric motor connected to impart such relative movement thereto, circuits for the motor and a positioning handle connected with one of said members and arranged to control the motor circuits.

1,414,684. KNIFE FOR SELF-BINDER KNOTTERS. MAXIMILLION M. ARNDT, Manitowoc, Wis. Filed Oct. 11, 1920. Serial No. 416,232. 2 Claims. (Cl. 289—15.)



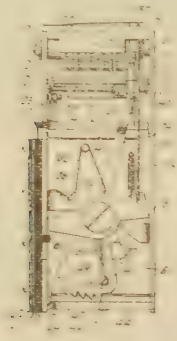
1. In a self-binder knotter mechanism having a pivoted blade carrying arm, and a twine cutting blade therefor, the same being disposed radially with respect to the axis of the arm, and having its cutting edge inclined substantially tangentially with respect to the arm axis, the cutting edge being terminated with a toothed end.

1,414,685. COUNTING MECHANISM. CREIGHTON F. BALDWIN, St. Louis, Mo. Filed Nov. 22, 1920. Serial No. 425,886. 4 Claims. (Cl. 235—98.)



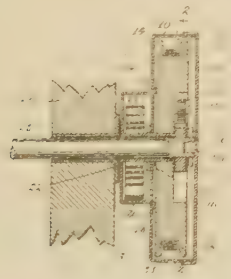
1. In a counting mechanism embodying a swinging gate and gate support, an angular stop mounted on the support to prevent the excessive back movement of the gate, same comprising two arms rigidly joined at right angles, a slot cut through each arm, a headed pin inserted through each slot and set in the support at right angles to each other, and a coil spring mounted over each said pin and braced between its head and the said support.

1,414,686. CALL INDICATOR FOR AUTOMATIC TELEPHONE SYSTEMS. JOHN G. BLESSING, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed July 10, 1916, Serial No. 108,324. Renewed July 28, 1919. Serial No. 313,825. 17 Claims. (Cl. 177—338.)



1. In an indicating device a plurality of number wheels rotatably mounted on a shaft, a reciprocating carriage disposed parallel to said shaft, an operating pawl slidably mounted thereon, and means for shifting said pawl sidewise along said carriage into successive positions corresponding each to a different number wheel.

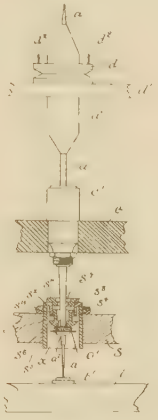
1,414,687. PHONOGRAPH ATTACHMENT. DAVID C. A. BOSWORTH, Brooklyn, N. Y. Filed May 4, 1920. Serial No. 378,931. 2 Claims. (Cl. 74—55.)



1. A phonograph rewinding attachment comprising a shaft adapted to engage a phonograph motor, a casing engaging said shaft and solely supported thereby and adapted to turn with respect to said shaft and with respect to said phonograph, a flexible member, and means housed within said casing engaging said shaft and said casing and engaged by said flexible member and adapted to rotate said shaft as said flexible member is pulled outwardly for the rewinding of said phonograph motor, and to cause the free retraction of said flexible member, said means and the mounting of said casing adapted to allow the casing to turn with respect to the phonograph and to accommodate itself to the direction of pull upon the flexible member.

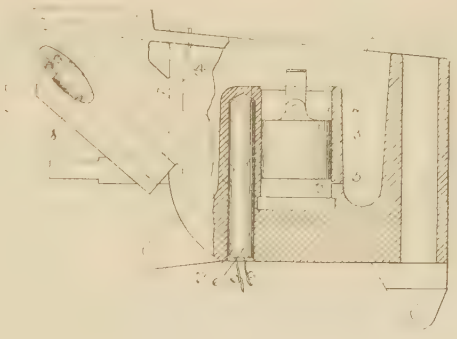
1,414,688. DRAG DEVICE FOR SPINNING MACHINES. FREDERICK WILLIAM CONSTANTINE, St. Annes-on-Sea, and THOMAS GEORGE KAY, Bolton, England. Filed June 4, 1920. Serial No. 386,512. 7 Claims. (Cl. 118—34.)

1. In spinning, doubling, twisting and like machines, a spindle, a disc fixed upon said spindle, rolling devices mounted on said disc, means for controlling the movement



of said rolling devices and a member resting upon said rolling devices.

1,414,689. ELECTRICALLY-HEATED MELTING POT FOR TYPOGRAPH MACHINES. GEORGE O. CROMWELL, Chicago, Ill., assignor, by mesne assignments, to Ludlow Typograph Company, Chicago, Ill., a Corporation of Illinois. Filed July 8, 1916. Serial No. 108,138. 15 Claims. (Cl. 22—71.)

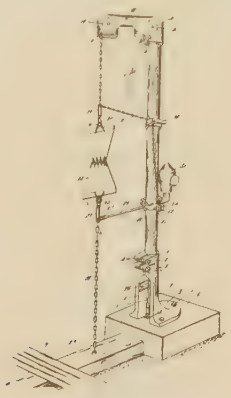


3. The combination with a melting pot for typograph machines and the like, having a chamber provided with a plurality of pockets; of resistance elements independently removably mounted in such pockets.

1,414,690. RAILWAY MAIL CRANE. WILLIAM S. DAVIDSON, deceased, by Anna L. Neal, administratrix, Philadelphia, Tenn. Filed June 10, 1919. Serial No. 303,231. 4 Claims. (Cl. 258—23.)

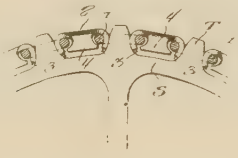
1. The combination, in a device for delivering articles to a moving train, of a hollow mast carrying an overhung arm and sheaves at its upper end and having a hollow base, means to clamp the mast to the base which will permit the mast under abnormal thrust strains on the arm to turn about a vertical axis in said base, a flexible member which extends upwardly through said mast and over said sheaves with its free end suspended from said arm, means

to anchor the end of the flexible member that is disposed within the mast, means on the free end of said



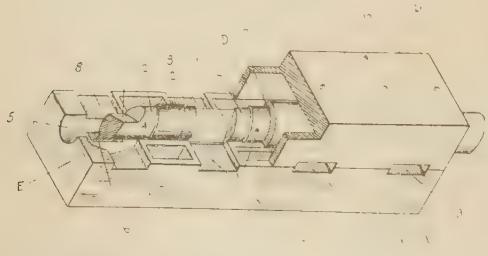
flexible member adapted to releasably support the articles to be delivered, and a releasable bottom fastening means for said article.

1,414,691. CHAIN BELT. CHARLES G. DEAN, Milwaukee, Wis. Filed May 11, 1920. Serial No. 380,622. 11 Claims. (Cl. 74—44.)



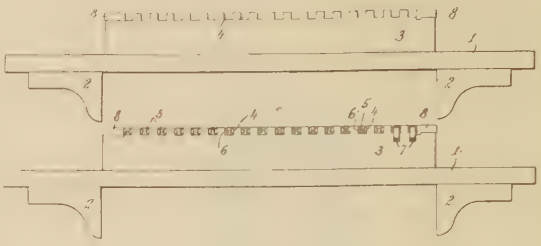
1. A belt comprising a series of links, certain of said links each consisting of a plate having its opposite side edge portions bent laterally to provide bearing ears for engagement with the faces of teeth.

1,414,692. ROTARY VALVE. ARTHUR DICKERSON, Salt Lake City, Utah, assignor to Dickerson Engine Company, Salt Lake City, Utah, a Corporation. Filed Feb. 15, 1921. Serial No. 445,219. 2 Claims. (Cl. 123—190.)



1. A rotary valve comprising a valve stem having segments cut therefrom to form ports; other portions of said valve stem adjacent said ports having less diameter than the main portions of said stem; cylindrically shaped bearing sleeves secured on said stem with an interior bore fitting the main portions of said stem and spaced from the portions of said stem having less diameter; with segmental ports cut in said sleeve bearing in alinement with the ports of said valve stem.

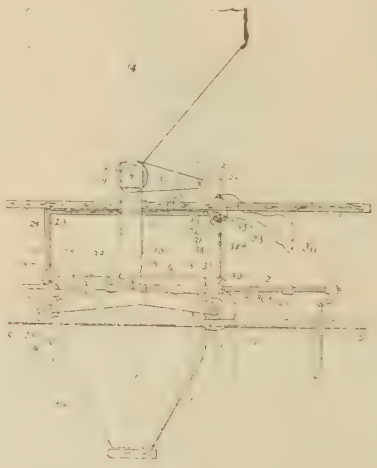
1,414,693. PRESS MAT FOR OIL PRESSES. CHARLES HIRAM FULSON, Trenton, Tenn., assignor to The American Cotton Oil Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 23, 1921. Serial No. 463,926. 4 Claims. (Cl. 100—54.)



1. A press mat for oil presses made up of a base member with longitudinal grooves and bars in said grooves having their upper surfaces even with the upper surfaces of the base member, said bars being spaced away from the sides of the grooves to provide longitudinal slots and channels for the escape of the oil.

4. A press mat for oil presses comprising a base member having longitudinal grooves therein, bars in said grooves having longitudinal recesses in their sides forming longitudinal oil passages, said bars being narrower than the grooves at their upper edges to provide slots communicating with the oil passages, and said bars being provided with projections at their ends by means of which the bars may be raised for clearing the oil channels from obstructions and by means of which the bars may be longitudinally positioned in the slots.

1,414,694. TRAVELING WEIGHING MACHINE. EUGENE GASE, Saginaw, Mich., assignor to Baker-Perkins Manufacturing Corporation, Saginaw, Mich. Filed Apr. 21, 1921. Serial No. 463,287. 4 Claims. (Cl. 249—45.)



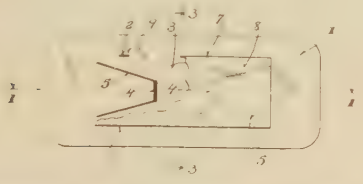
1. In a machine of the kind described, the combination with a balance of a wheeled truck supporting the said balance, of rails on which the said truck is moved, of a conveyer supplying the materials to be weighed by means of the said balance, of an electromotor driving the said conveyer, of a chute directly transferring the materials to be weighed coming from the said conveyer into the weighing hopper of the said balance, of a stop block fixed to the said rails at such a point, that, when the said truck is placed against the same, the weighing hopper of the said balance is situated underneath the said chute in the right position for being charged, of a

starter for the said motor, arranged at a stationary support near the said stop block, and of a device mounted on the said truck at such a point and so adapted as to actuate the said starter as soon as the said truck touches the said stop block.

1,414,695. METHOD OF PRODUCING LUBRICATING OILS. GUY D. HARPER, Franklin, Pa. Filed May 11, 1918. Serial No. 233,849. 8 Claims. (Cl. 196—25.)

1. The method of producing a lubricating oil ready for commercial use as such which consists in selecting a crude petroleum of the grade of Franklin heavy oil and having a so-called naphthene base, concentrating the same by distillation to approximately 70% of its original volume and then filtering the residual product to produce such lubricating oil.

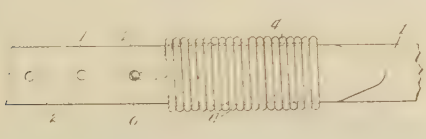
1,414,696. 4-WAY BEE ESCAPE. KENNITH HAWKINS, Watertown, Wis., assignor to G. B. Lewis Company, Watertown, Wis. Filed May 23, 1921. Serial No. 471,802. 3 Claims. (Cl. 6—4.)



1. A 4-way bee escape comprising a centrally apertured base plate, looped clips constituting part of the base plate and extending from the edge walls of the aperture, a V-shaped spring having a flat apex stretch engageable with the looped clips, whereby the springs are rigidly held, an open ended runway having side flanges attached to the base plate, the side walls of the runway in connection with the free ends of the spring forming choked entrance passages.

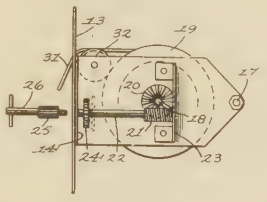
3. A 4-way escape consisting of a base plate made of one thickness of metal having a central aperture, a pair of metallic strips adjacent said aperture integral with said base plate and directed at right angles thereto then bent and extending back substantially at right angles to the base plate and forming a pair of loops, a pair of V-shaped springs, each having a flat apex strip engaged in said loops whereby the springs are rigidly held, an open ended run-way having elongated straight side flanges attached to said base plate, the side flanges of the runway in connection with the four free ends of the springs forming four choked passages.

1,414,697. BELT OR OTHER BUCKLE. PETER A. HORRAS, Chicago, Ill. Filed Feb. 12, 1921. Serial No. 444,344. 4 Claims. (Cl. 267—74.)



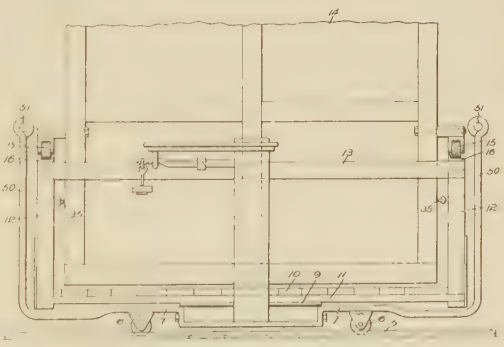
1. A belt of nonelastic material, and resilient means adapted to stretch and yieldingly buckle the two front end portions of the belt together, forming a front buckle for the belt, so that the belt as a whole can stretch only at the front thereof on the wearer, and whereby the belt is tightened by contraction of said buckle, said buckle comprising a substantially flat coil spring having the convolutions thereof tight together, attached to one end portion of the belt, and having means to detachably engage the usual holes in the other end portion, when the latter is inserted through the flattened spiral, so that the convolutions thereof form a spring buckle connection between said end portions of the belt, and whereby expansion of the belt around the waist of the wearer serves to lengthen the spring, while by contraction of the spring the belt is automatically tightened.

1,414,698. SASH LIFTER. WALTER KARASIEWICZ, Detroit, Mich. Filed Feb. 19, 1921. Serial No. 446,349. 1 Claim. (Cl. 16—197.)



In a device of the character described a chamber to each side of a window, a casing in each of said chambers, a hub journaled between the side plates of one casing, a worm wheel on the outer end of said hub, a horizontal shaft, a worm on one end of said shaft in engagement with said worm wheel, a gear on the opposite end of said shaft, a spring within said drum, a sash weight rope wound around said spring, said gear adapted to be engaged by a similar gear at the end of a key adapted to be introduced into the chamber for tensioning the spring to any desired degree for compensating the weight of the window sash and the sash weights, and means for guiding sash cable.

1,414,699. TRANSFER MECHANISM. WILLIAM S. KINSLEY, Reading, Mass., assignor to The Russell Company, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 5, 1920. Serial No. 349,510. 4 Claims. (Cl. 214—2.)

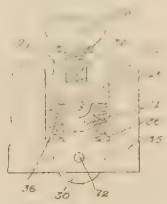


1. Transfer apparatus including a truck, a floor carried by said truck, a bottomless box adapted to be positioned on said truck above said floor and means including a support independent of said truck for receiving said bottomless box when shifted from said truck, said support sustaining said bottomless box with the bottom thereof open to permit gravity-actuated discharge of the contents thereof.

1,414,700. RAILROAD STATION INDICATOR. ANTONI LUCYSHYN, Toronto, Ontario, Canada. Filed Oct. 29, 1919. Serial No. 334,288. 1 Claim. (Cl. 40—41.)

In a street car indicator of the character described, including two guide rollers and a tape guided between both rollers, means for regulating the pressure between the tape guiding rollers, said means comprising recessed blocks in which the shaft of one of said rollers is journaled, upper bearings slidably arranged within the

recess of said block in which the shaft of the other of said rollers is journaled, pairs of springs on which said

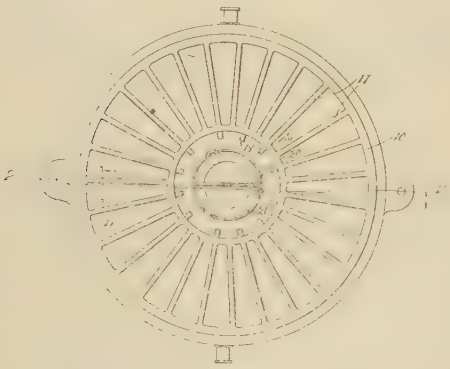


bearings rest and screws provided with operating heads for pressing said bearings downwardly, substantially as described and for the purpose set forth.

1,414,701. METAL TIP FOR SHOE LACES. RAY MCKINLEY MIKESELL, Percy, Iowa. Filed July 16, 1921. Serial No. 485,202. 1 Claim. (Cl. 24—143.)

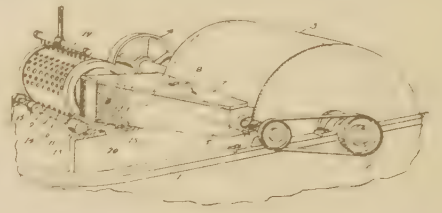
A metal top for shoe laces consisting of a blank of material of greater length than width adapted to extend around a shoe lace, the material adjacent to the side edges of said blank being bent so as to be received and concealed in the material of said shoe lace and to form a pair of parallel walls adapted to rest against each other, said walls terminating short of the outer end of said metal tip, whereby the adjacent edges of said last portion may be made to abut against each other for forming a continuous covering around the end of the lace, the lower edges of said walls being provided with teeth adapted to extend into the shoe lace material for preventing the pulling off of the tip from the laces for the purposes stated.

1,414,702. METHOD OF MOLDING AND FLASK PART THEREFOR. DANIEL C. MULVIHILL, Hannibal, Mo. Filed June 23, 1919. Serial No. 306,049. 5 Claims. (Cl. 22—111.)



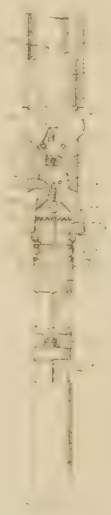
1. A flask part for molding car wheels, comprising bars dividing the sand space of the cope into compartments whose depth is substantially greater than the greatest distance between the bars measured in a plane perpendicular to a radius bisecting one of said compartments.

1,414,703. CONTINUOUS EXTRACTOR. LLOYD T. MURPHY, St. Marys, Ohio. Filed July 6, 1920. Serial No. 394,113. 7 Claims. (Cl. 92—23.)



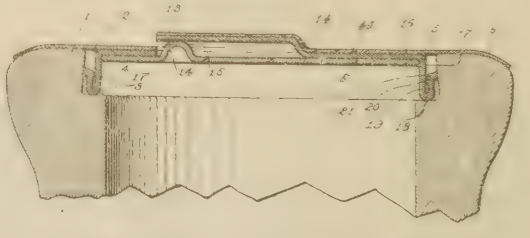
1. In combination with a beater and a tub, a box for catching the material thrown by contrifugal force from the beater, and a revolving cylinder into which the box empties, said cylinder having a foraminated body, for the purpose described.

1,414,704. UNDERREAMER. EDGAR H. NEWKIRK, Tulsa, Okla. Filed May 26, 1921. Serial No. 472,635. 7 Claims. (Cl. 255—76.)



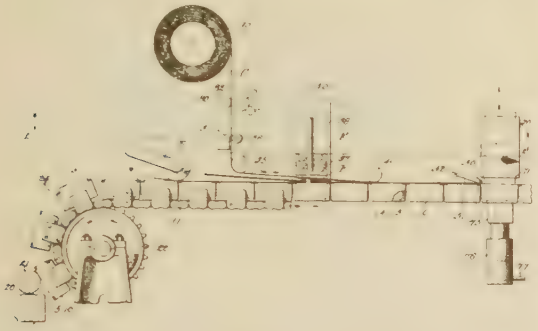
1. The combination with a drill stem and bit of an under-reamer, comprising a reamer body provided at both ends with a joint, recesses in said reamer body, a set of lugs swiveled in said recesses and means for locking and unlocking said lugs.

1,414,705. BOTTLE CAP. CHARLES C. PARKER, Baltimore, Md., assignor to The Hygienic Bottle Cap Company, Baltimore, Md., a Corporation of Maryland. Filed Jan. 23, 1920. Serial No. 353,566. 6 Claims. (Cl. 215—51.)



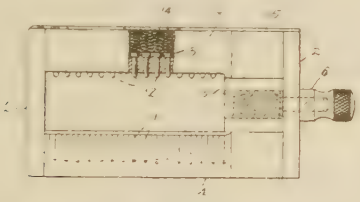
2. A bottle cap of sheet material having a U shaped cut forming a lifting tab with cuts curved about the ends of the cut to prevent tearing.

1,414,706. METHOD OF PACKAGING. JONATHAN PETERSON, Brooklyn, N. Y., assignor to Combination Machine Company, N. Y., a Corporation of Delaware. Filed Jan. 28, 1921. Serial No. 440,588. 31 Claims. (Cl. 226—80.)



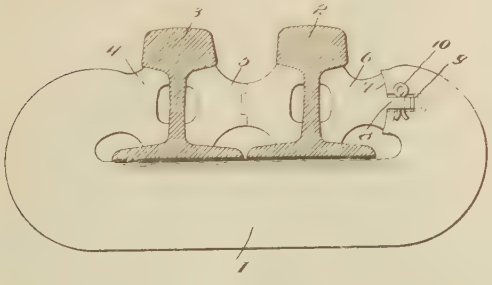
1. A method of packaging comprising applying adhesive to marginal portions of a container body, applying a cover piece to the open side of the body and securing the cover piece adhesively to said body margins, and turning down the combined cover and body marginal portions and securing the adhesively coated faces of the body margins to adjacent sides and ends of the body.

1,414,707. TYPOGRAPH MECHANISM. HARRY G. POTTLE, Chicago, Ill., assignor, by mesne assignments, to The Ludlow Typograph Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 23, 1919. Serial No. 319,397. 7 Claims. (Cl. 199—49.)



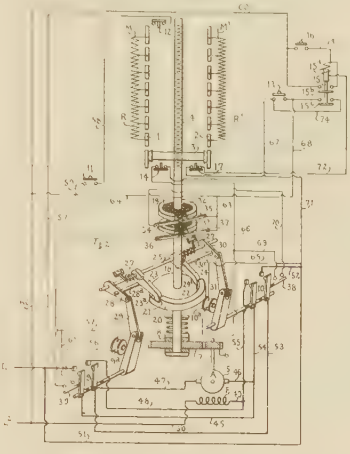
1. In typograph mechanism, the combination with detached matrix bars each having an edge adapted to co operate with a mold; of a member formed with an elongated opening adapted to receive a number of said bars and support the same in selected relation with their mold-cooperative edges exposed, said bars being movable in said holder in the direction of such edges; and means adapted to vary the position of said bars in such direction.

1,414,708. SELF-ADJUSTING GUARD-RAIL CLAMP. CHARLES A. PSILANDER, Easton, Pa., assignor to William Wharton, Jr. & Company, Incorporated, Easton, Pa., a Corporation of Pennsylvania. Filed Apr. 7, 1920. Serial No. 371,819. 9 Claims. (Cl. 238—21.)



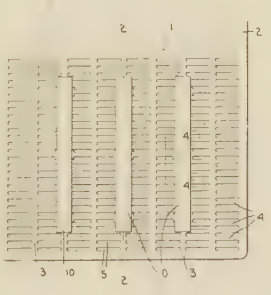
7. The combination of a running rail, a guard rail, a filling, and self-adjusting clamping means capable of bodily movement in response to tilting of the rails to preserve the straight line bearing positions of the parts.

1,414,709. RHEOSTAT. GUSTAV B. REISBACH, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Apr. 2, 1921. Serial No. 457,980. 18 Claims. (Cl. 171—229.)



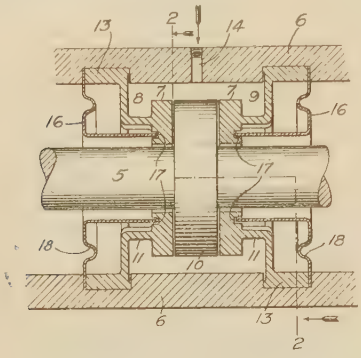
1. In a device of the character set forth, in combination, a power operated member having different positions of rest, control means for effecting operation of said member in opposite directions, means associated with said former means insuring against stopping of said member in positions other than the aforesaid positions said latter means including means for positively locking said member in a selected position.

1,414,710. BATTERY PLATE. WILLIAM ROBERTS, Akron, Ohio, assignor of two-thirds to Frank T. Lahey, Akron, Ohio. Filed Mar. 17, 1921. Serial No. 453,123. 11 Claims. (Cl. 204—29.)



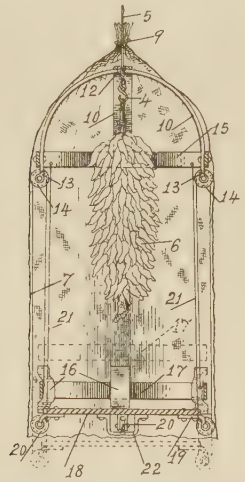
1. A battery element comprising two plates separated from each other, a plurality of horizontal and vertical ribs in said plates, the ribs intersecting to form elongated rectangular openings and a plurality of isolated abutments on said plates said abutments extending above the plane of the ribs and forming spacing members between the plates and means for securing the plates together with the abutments in contact.

1,414,711. THRUST BEARING. HENRY F. SCHMIDT, Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Co., a Corporation of Pennsylvania. Filed Apr. 29, 1918. Serial No. 231,373. 8 Claims. (Cl. 64—25.)



1. A thrust block for a thrust bearing comprising a rigid mounting ring having a plurality of integral flexible arms extending from the mounting ring toward the center thereof and terminating in bearing shoes capable of independent displacement.

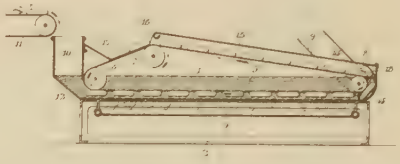
1,414,712. BANANA RACK AND COVER. LOUIS C. SCHMIDT, Springfield, Ill. Filed Sept. 1, 1921. Serial No. 497,722. 1 Claim. (Cl. 211—14.)



In a banana rack and cover, a supporting frame comprising crossed arches provided with sheaves and a hoop uniting said arches, in combination with a slip supported on said frame; a hoop attached inside said slip; a bottom plate inside the slip; sheaves on said bottom plate in vertical line with the respective sheaves on said frame; and a number of cords equal to the number of sheaves on said frame, each cord having one end attached to said frame, running downwardly around a sheave on the bottom plate, upwardly around the corresponding sheave on the frame and having its other end attached to the hoop which is attached inside the slip.

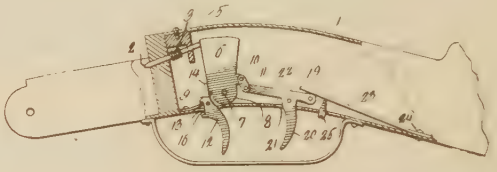
1,414,713. COOKING APPARATUS. CECIL H. SHERMAN and FRANK ELLIS MORRIS, Philadelphia, Pa.; said Sherman assignor, by mesne assignments, of his entire right to John C. Bergner, Philadelphia, Pa. Filed June 7, 1919. Serial No. 302,386. 19 Claims. (Cl. 53—7.)

1. In apparatus for cooking articles by contact with hot cooking fluid, the combination of means for introducing articles into the fluid; conveyor belt means for progressing the articles through the fluid completely submerged therein throughout the cooking period; and means for directing



the articles in the fluid beneath said belt, so as to engage its under surface by virtue of their buoyancy and be carried along through the fluid.

1,414,714. GUN. FRANKLIN B. SUTLIFF, Jamison City, Pa. Filed Aug. 8, 1921. Serial No. 490,606. 2 Claims. (Cl. 42—69.)

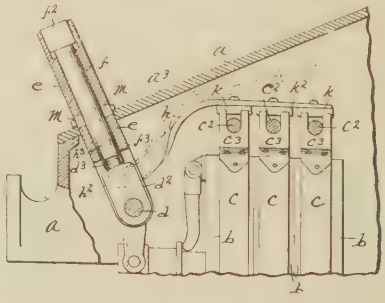


1. In combination, a cocking mechanism comprising a firing pin, a hammer associated therewith, means for holding the hammer in a cocked position, a cocking trigger of substantial T-shape having one end thereof attached to the hammer, a spring engaging the other end of the cocking trigger for forcing the same to a position that will actuate the hammer against the firing pin.

1,414,715. GLASS. WILLIAM CHITTENDEN TAYLOR, Corning, N. Y., assignor to Corning Glass Works, Corning, N. Y., a Corporation of New York. Filed Dec. 15, 1920. Serial No. 431,009. 3 Claims. (Cl. 106—36.1.)

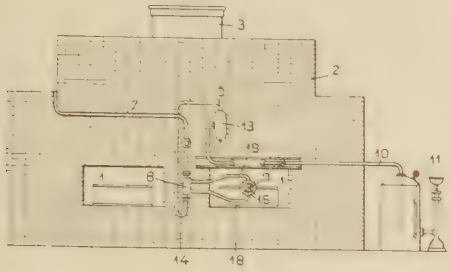
1. A flesh colored glass of high ultra-violet absorption and good visible transmission containing between 3 and 6 per cent cerium dioxide, and containing manganese dioxide.

1,414,716. GEAR LOCK FOR AUTOMOBILES. CHARLES G. TROSIEN, Pontiac, Mich. Filed Dec. 12, 1919. Serial No. 344,279. 14 Claims. (Cl. 70—90.)



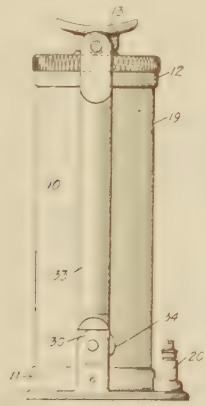
1. In a change-speed gearing having a brake-band, as one of its operative elements, a stop adapted to be interposed in the line of movement of one end of said band and means for interposing said stop in the line of travel of the end of said band and removing it therefrom at will.

1,414,717. BAKER'S OVEN. WILHELM ZIEMSEN, Brunswick, Germany. Filed July 1, 1920. Serial No. 393,477. 6 Claims. (Cl. 107—55.)



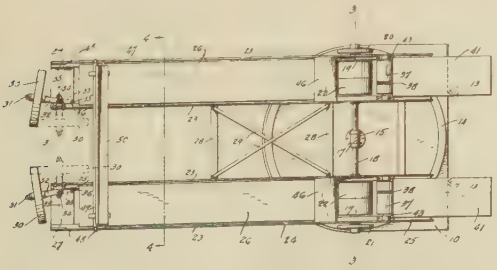
1. In a baker's oven in combination, two baking chambers, a swinging pipe joint between said chambers, a burner adapted to be oscillated about said joint so as to alternatively heat one or the other chamber, and means for supplying said burner with liquid fuel and spraying means through said joint, whenever the burner is in operative position.

1,414,718. PNEUMATIC LIFTING JACK. JOSEPH A. ANGLADA, Jenkintown, Pa., assignor of one-half to Charles S. Akley, New York, N. Y. Filed July 14, 1919, Serial No. 310,653. Renewed Oct. 21, 1921. Serial No. 509,390. 7 Claims. (Cl. 138—9.)



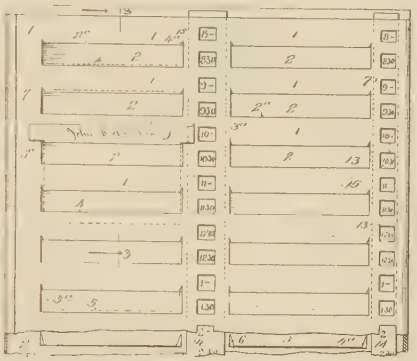
1. A lifting jack comprising a load receiving support, fluid actuated means for raising the support a control valve and a positioning handle movably connected with the jack and arranged to control the valve.

1,414,719. TRUCK TURNTABLE. FRANKLIN E. ARNDT, Galion, Ohio, assignor to The Galion Iron Works & Mfg. Co., Galion, Ohio, a Corporation of Ohio. Filed Feb. 20, 1922. Serial No. 538,058. 17 Claims. (Cl. 104—41.)



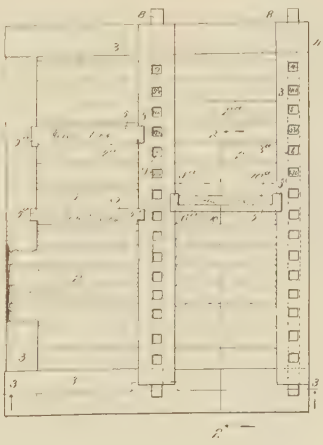
1. A turntable comprising a frame rotatable around a vertical axis, the axis intersecting the frame adjacent one end of the frame, and means for supporting an automotive vehicle on the frame with the rear wheels thereof between said axis and the adjacent end of the frame to thereby cause the weight of the vehicle to tend to urge the opposite end of the frame upward.

1,414,720. APPOINTMENT RACK OR CARD. ZEMACH AUERBACH, New York, N. Y. Filed Dec. 14, 1921. Serial No. 522,333. 6 Claims. (Cl. 40—124.)



5. An appointment rack comprising adjacent sheets provided with spaced slots and having tongues, the tongues of one sheet extending through the slots of the adjacent sheet and depending below the slots thereof providing guideways for cards between the sheets, side portions of the sheets being attached together, and cards adapted to enter said slots, said cards having lateral projections at their upper and lower edges to retain the cards in the slots, said cards having slots in their side edges adapted to receive the material of the front sheet adjacent to the sides of its slots to permit the passage of the lower projections of the cards through said slots.

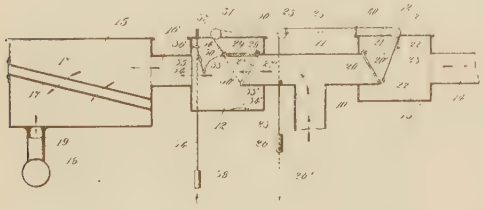
1,414,721. APPOINTMENT FILE OR RACK. ZEMACH AUERBACH, New York, N. Y. Filed Dec. 21, 1921. Serial No. 523,844. 5 Claims. (Cl. 40—124.)



2. A rack of the class described comprising a body and a strip wound in overlapping relation providing passage-ways therebetween for cards, and bindings at opposite sides of the body secured over the adjacent portions of the strip, one or more of said bindings having a mid-portion providing a space unsecured to the strip and provided with openings registering with the runs of

the strip and a card having time indications thereon adapted to be inserted in the space behind the binding to show its time indications through said openings.

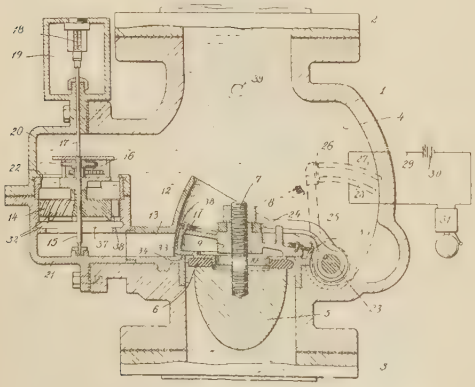
1,414,722. FUME CONTROL DEVICE. VERN K. BOYNTON, New York, N. Y., assignor to Perry & Webster, Inc., New York, N. Y., a Corporation of New York. Filed Oct. 14, 1920. Serial No. 417,044. 26 Claims. (Cl. 137—92.)



6. In a fume control device, in combination, a fume conduit having a normal exit and an abnormal exit, a closure capable of closing the normal exit of the conduit, a closure capable of closing the abnormal exit of the conduit, fusible means for maintaining the normal exit in an open condition and means whereby the fusing of the fusible means will close the normal exit and open the abnormal exit.

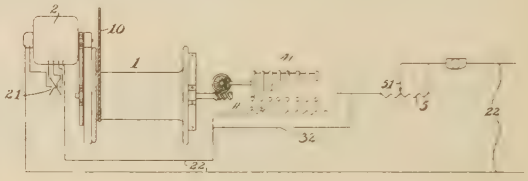
15. In a fume control device, in combination a conduit, a normal exit of the conduit connected with a chamber, a chamber, a closure within the chamber capable of closing the normal exit, an abnormal exit of the conduit connected with a second chamber, a second chamber, a closure within the second chamber capable of closing the abnormal exit and means whereby a rise of temperature in the first chamber will close the normal exit and open the abnormal exit diverting fumes from the conduit into the second chamber.

1,414,723. METER ALARM VALVE. JOHN H. BRUMBAUGH, Wilmette, Ill., assignor to Automatic Sprinkler Company of America, New York, N. Y., a Corporation of New York. Filed Nov. 17, 1917. Serial No. 202,463. 10 Claims. (Cl. 169—23.)



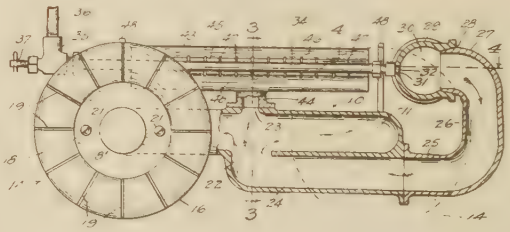
1. In meter alarm valves for automatic sprinkler systems, a valve casing adapted to be connected to a sprinkler distributing system and to a municipal water supply system, an alarm valve mounted in said casing, a connected valve arm and valve stem to guide said alarm valve in its opening movement, an electric alarm device comprising an alarm signal and an alarm switch connected to said valve stem to actuate said alarm signal when said alarm valve opens, a valve seat with which said alarm valve cooperates and a throttling valve collar formed integral with said valve seat to form a valve throat through which said alarm valve moves during its opening movement, a throat washer mounted on said alarm valve to make substantially tight joint between said alarm valve and throat during the first opening movement of said alarm valve, a meter passage communicating with said throat adjacent said valve seat, a turbine meter device mounted in a sectional meter casing secured to said valve casing to receive the fluid flowing from said meter passage into said distributing system when said alarm valve first opens, an indicator mounted outside of said valve casing and connected to said meter device, said alarm valve having emergency opening movement out of said valve throat to allow direct flow of liquid through said throat and into said distributing system without passing through said meter device.

1,414,724. TOWING MACHINE AND METHOD OF TOWING. ALLAN CUNNINGHAM, Seattle, Wash. Filed Nov. 22, 1920. Serial No. 425,657. 10 Claims. (Cl. 254—172.)



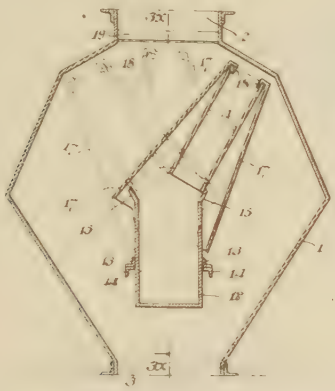
1. In a towing machine, in combination, a drum, an electric motor for producing a torque upon said drum, a source of current to said motor normally supplying sufficient power to maintain the motor torque in equilibrium with and opposite in effect to the towing torque, and a rheostat mechanically operated by said drum and electrically connected in the circuit to said motor, and operable to vary the power delivered to the motor proportionally to the variation from normal of the torque upon the drum, and opposite in effect.

1,414,725. OIL BURNER. WILLIAM H. DAVIDSON, Seattle, Wash. Filed Apr. 9, 1920. Serial No. 372,469. 1 Claim. (Cl. 158—61.)



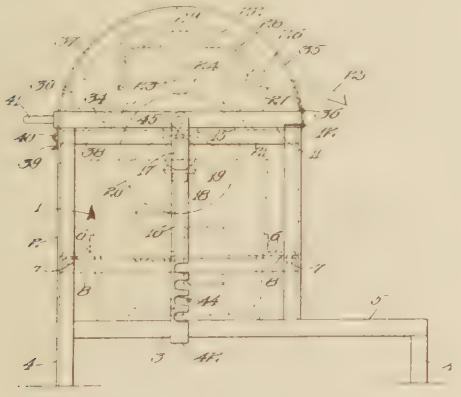
In an oil-burner, the combination of a manifold having a reservoir, burner heads communicating with the opposite ends of said reservoir, a supplementary burner head disposed at one side of said manifold and communicatively connected with the reservoir at the mid-length thereof, a passage at the side of the manifold and having communicative connection with the reservoir opposite to the connection of the same with the said supplementary head, an air receiving member disposed adjacent to one end of the latter, a substantially U-shaped pipe connecting said member with said passage, a retort-tube provided above said supplementary head, an oil supply pipe connected to one end of the retort-tube, a discharge nozzle for the other end of the retort-tube and extending into said member, and a valve in said nozzle for regulating the discharge of gas from the retort-tube into the air receiving member.

1,414,726. MINERAL SAMPLER. GEORGE R. DELAMATER, Steelton, Pa. Filed Oct. 22, 1919. Serial No. 332,545. 6 Claims. (Cl. 73—21.)



1. In mechanism of the character described, the combination with a case having an inlet in its top and an outlet in its bottom, of a throat having an inlet of substantially the width of said inlet first named, means for oscillating said throat in said case to cause its inlet to sweep across said inlet first named, means for discharging minerals from said throat through said case, and diverging wings carried by said throat, said wings adapted at the limits of their movements to extend across said inlet first named and intersect alternately the stream of materials flowing therethrough.

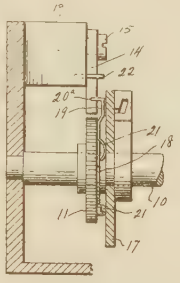
1,414,727. ICE-CREAM FREEZER. WALTER S. EDMANDS, Boston, Mass. Filed Apr. 2, 1921. Serial No. 457,880. 5 Claims. (Cl. 192—116.)



1. In combination with a rotary work shaft, a mount for said work shaft, a hinged lid above said shaft, an electric motor mounted on said lid, means whereby when said lid is closed said motor makes driving connection with said work shaft, an electric circuit for energizing said motor, and contact mechanism which is broken by the opening of said lid and closed by the closing of said lid.

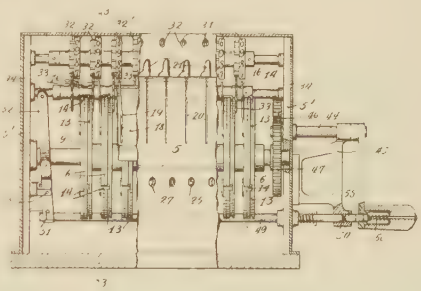
1,414,728. FRICTIONALLY-OPERATED FULL-STROKE MECHANISM. HUGO ENDERS, Belleville, N. J., assignor to The Lehigh Corporation, New York, N. Y., a Corporation of Delaware. Filed Apr. 9, 1921. Serial No. 460,107. 12 Claims. (Cl. 235—129.)

1. Means for preventing reverse movement of a movable member including a shiftable element, a normally freely swinging oscillatory locking member, stops limiting the movement of the oscillatory locking member in opposite direction, and means for bringing said locking member into engagement with said element upon a reverse



movement of said element including means carried by and having frictional engagement with said shiftable element and having positive rocking engagement with the oscillatory locking member.

1,414,729. CALCULATING MACHINE. HUGO ENDERS, Belleville N. J., assignor, by mesne assignments, to The Lehigh Corporation, New York, N. Y., a Corporation of Delaware. Filed Oct. 29, 1919. Serial No. 334,113. Renewed Mar. 25, 1922. Serial No. 546,890. 25 Claims. (Cl. 235—73.)

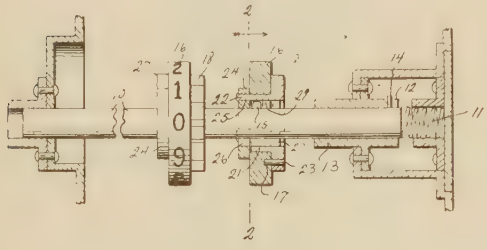


2. In a calculating machine, the combination with a plurality of calculating disks, each having a series of radially movable teeth, and a tooth adjusting member for each disk, of a manually operable handle for each adjusting member separate therefrom, and means in one position locking the adjusting member to the disk for rotation as a unit therewith, said locking means being shiftable to a position to release the tooth adjusting member from its engagement with the disk and connect the tooth adjusting member to said handle for movement with the handle independently of the disk.

12. In a calculating machine, the combination with a series of calculating disks each having a plurality of radially movable teeth and a series of adjusting members for the teeth of each calculating disk, a crank handle for the calculating disks, and means for locking the same against movement of means carried by each adjusting member to engage the same with the corresponding disk, a common actuator for said engaging means, mechanism operatively connecting said actuator with the crank locking means whereby when the crank is locked, said engaging means are moved to release the adjusting members for movement relative to the calculating disks, and when the handle is released, said actuator is moved to engage the adjusting members with the disks, a series of manually operable elements, each one engaged by one of the engaging means when moved to its released position whereby the adjusting members may be independently actuated to adjust the teeth of the calculating disks, a series of numeral wheels, mechanism operatively connecting said manually operable elements to the respective

numeral wheels, a master key for resetting all of the numeral wheels to zero position, and additional keys for individually resetting said numeral wheels to zero position.

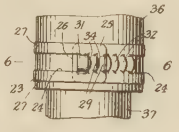
1,414,730. DIGIT WHEEL FOR CALCULATING MACHINES. HUGO ENDERS, Belleville, N. J., assignor to The Lehigh Corporation, New York, N. Y., a Corporation of Delaware. Filed Dec. 18, 1920, Serial No. 431,751. Renewed Mar. 25, 1922. Serial No. 546,891. 6 Claims. (Cl. 235—58.)



1. A digit wheel and associated pinion for calculating machines comprising an annular digit wheel body, a pinion having a sleeve-like hub inserted through the central aperture of the body, the pinion and body being formed for unitary rotation when in engagement with each other, and a disk upon the opposite face of the body from the pinion with which the sleeve-like hub has operative engagement.

6. A pinion for calculating machines having an annular hub, the hub projecting laterally from the pinion and said hub adjacent one face of the pinion being formed with an inwardly projecting, relatively thin flange, the flange being formed at one point with a keyway and at another point being pressed inward to form an axially projecting tooth.

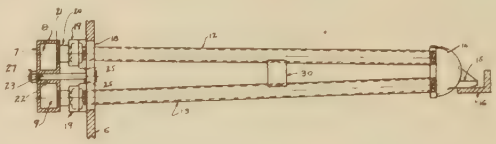
1,414,731. ADJUSTABLE BAND. KNUT E. ENGLUND, Brooklyn, N. Y., assignor to Robert H. Gay, New York, N. Y. Filed Jan. 18, 1921. Serial No. 438,195. 2 Claims. (Cl. 24—20.)



1. An adjustable band of the class described, the end portions of which are provided with a plurality of transverse projecting members fashioned from the material of said band and forming corresponding transverse apertures therein, and the front edges of the projecting members on one end portion of said band being arc-shaped in form and adapted to engage the rear edges of the projecting members on the other end portion of said band when said end portions are brought together and overlapped to securely hold said end portions together in different positions of adjustment.

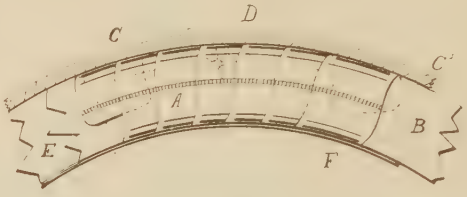
1,414,732. BOILER AND FURNACE GRATE. MOSES L. FOOTE and WILLIAM M. KINGSBURY, Cleveland, Ohio. Filed Apr. 9, 1920. Serial No. 372,544. 2 Claims. (Cl. 122—374.)

1. The combination with a transverse header having passages therein, of a fire box having a front opening, and a plurality of grate bars each having upper and lower tubes communicating with said passages, a draw plate between the outer ends of the tubes and fitting



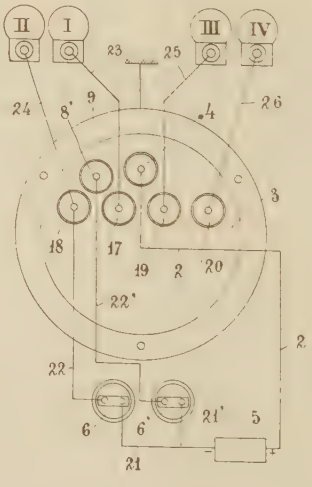
the opening in the fire box, and a bolt between the draw plate and header.

1,414,733. REPAIR PATCH. ELBRIDGE J. FORBES, Revere, Mass. Filed Oct. 13, 1920. Serial No. 416,619. 3 Claims. (Cl. 152—24.)



1. A single piece repair patch or blow out bridge for pneumatic vehicle tires which, when in use, is coiled spirally around the inner tube and inside the casing with the several coils overlapping each other sufficiently to sustain the internal air pressure locally by means of the friction of the overlapping portions at each coil under the blow out or defect when, as the tire is inflated, the expansion of the inner tube clamps the end coils between its outer surface and the inner surface of the uninjured parts of the casing adjacent to the blow out or defect, thus avoiding an additional or excessive strain on any part of the casing.

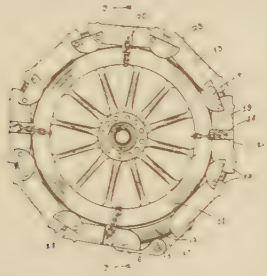
1,414,734. SWITCH FOR CONTROLLING IGNITION AND STARTING CIRCUITS IN EXPLOSION ENGINES. GUGLIELMO GIOVANNONI, Turin, Italy, assignor to Ottorino Pomilio, New York, N. Y. Filed Dec. 19, 1918. Serial No. 267,452. 5 Claims. (Cl. 123—148.)



1. A system for controlling ignition and starting circuits in explosive engines comprising, a plurality of magnetos, a starting circuit including a main vibrator and an auxiliary vibrator, the latter adapted to be used when required by the power of the engine, a storage battery in the said starting circuit, a switch having a num-

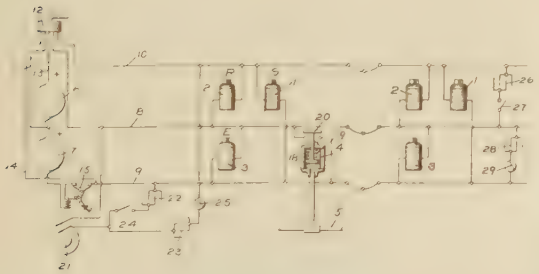
ber of contacting parts arranged in a plurality of sets, means for connecting the contacting parts of each set with one of the magnetos, means for short-circuiting any required set to put the magnetos connected therewith out of operation, means for connecting a magneto for each vibrator used with one terminal of the starting circuit, means for closing the current through a connection with the other terminal of the starting current circuit, when said sets of contacts will be excluded from the circuit.

1,414,735. AUTO WHEEL ATTACHMENT. WILLIE GREENSLADE, Ottawa, Ontario, Canada. Filed Mar. 25, 1921. Serial No. 455,479. 2 Claims. (Cl. 152—16.)



2. An automobile accessory of the character described, comprising a plurality of channel-shaped shoe members adapted to circumferentially embrace a tire, segmental links pivotally connecting said members upon their inner portions, hinge members attached to adjacent shoe members upon their outer faces and pivotally connected together, brackets mounted on alternate shoe members and having V-shaped inner ends and chains engaged in said brackets, the acting faces of said shoe members having transverse gripping ridges.

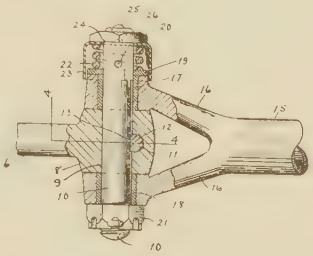
1,414,736. ELECTROPNEUMATIC BRAKE AND SIGNAL SYSTEM. JOHN B. GROSSWEGE, Wilkinsburg, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed May 22, 1919. Serial No. 298,975. 11 Claims. (Cl. 303—20.)



1. In an electrically controlled brake, the combination with a release magnet, a service application magnet, and an emergency application magnet, of three train wires having the release magnet connected across the first and second train wires, the emergency magnet across the second and third train wires, and the service magnet across the first and third and means for supplying current at one voltage across the first and third train wires and at a less voltage across the first and second and the second and third train wires.

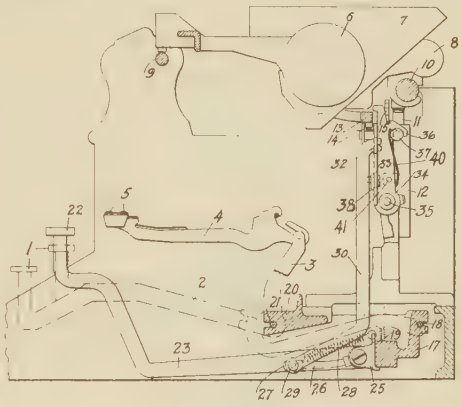
4. In an electro-pneumatic brake, the combination with electrically controlled means operated upon deenergization to effect an application of the brakes, of a normally energized train wire connected to said means, a normally open switch in circuit with said train wire, means operated upon applying the brakes for closing said switch, and means operated upon closing said switch for deenergizing said train wire.

1,414,737. ANTIRATTLER FOR STEERING KNUCKLES. EDWARD J. GULICK, Elkhart, Ind. Filed June 11, 1919. Serial No. 303,355. 5 Claims. (Cl. 287—100.)



1. In a steering knuckle for a motor vehicle, an arm; a pin transversely mounted on said arm; adjustable means for preventing axial movement of said pin in its mount, said means being mounted upon said arm; a forked cross-rod element having its fork pivotally carried on said pin; and resilient means carried by said pin for pressing said cross-rod fork into engagement with said arm.

1,414,738. TYPEWRITING MACHINE. WILLIAM F. HELMOND, Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed June 19, 1919. Serial No. 305,255. 7 Claims. (Cl. 197—91.)

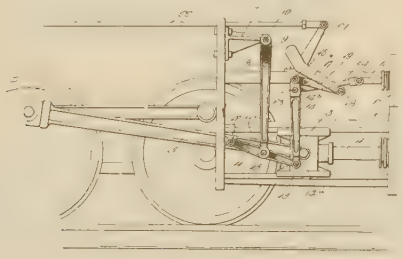


1. In a typewriting machine, the combination with a traveling carriage and an escapement mechanism therefor including a rack connected to the carriage to travel therewith, of a pawl-carrier mounted for movement transversely to the letter-spacing movement of the rack, a back-spacing pawl mounted on the pawl-carrier to have letter-spacing movement thereon, means for limiting the letter-spacing movement of the pawl on the pawl-carrier, a pawl-carrier engaging spring for continually urging the pawl-carrier towards the rack for moving the pawl carried thereby into engagement with the rack, and manually-controlled operating means for normally holding the pawl-carrier away from the rack and with the pawl disengaged therefrom against the tension of the pawl-engaging spring, but said operating means being operable to permit the pawl-engaging spring to move the pawl-carrier towards the rack to engage the pawl therewith, and then said operating means by continued movement acting to move the pawl on the pawl-carrier to move the rack to back-space the carriage.

1,414,739. ENGINE VALVE GEAR. JOHN D. HOOD, Philadelphia, Pa. Filed Oct. 6, 1919. Serial No. 328,693. 1 Claim. (Cl. 121—163.)

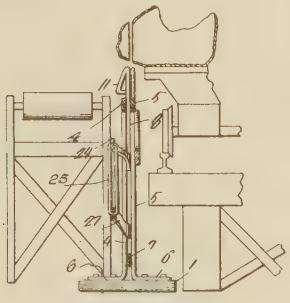
In a steam engine valve gear, the combination with a slide valve rod, a piston rod below said valve rod, a

pitman pivoted to said piston rod, and a relatively fixed frame structure; of a vertical link pivoted at its upper end to said frame structure in a plane above said valve rod, the lower end of said link being in substantially the same plane as said pitman and spaced outwardly from the latter, a substantially horizontal lever fulcrumed between its ends to the lower end of said link, the rear end of said lever being offset inwardly and pivoted directly to said pitman while the front end of said lever is



offset outwardly, a substantially vertical lever parallel with and spaced forwardly from said vertical link, a pivot connecting the lower end of said vertical lever with the front end of said horizontal lever, a substantially horizontal link pivoted at its rear end to the upper end of said vertical lever and forming a fulcrum therefor, means pivotally mounting the front end of said horizontal link on said frame structure, and a connecting rod pivoted to said vertical lever and to said valve rod.

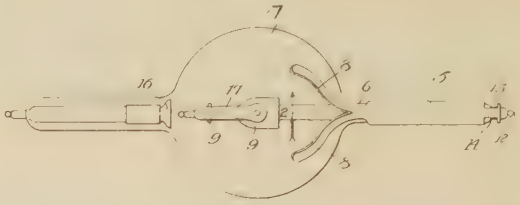
1,414,740. SAWMILL ATTACHMENT. JOEL S. JUNKIN, Kennedy, Ala. Filed Oct. 29, 1919. Serial No. 334,155. 6 Claims. (Cl. 143—157.)



1. A slab tripping mechanism comprising a support, an actuating lever fulcrumed on said support, a horizontal bar guided for vertical movement on said support, a plurality of trips mounted upon said horizontal bar to extend upwardly therefrom, levers fulcrumed intermediately of their ends on said support, standards rising from said bar to which said levers are pivoted at their outer ends, and links connecting the inner ends of said levers with said actuating lever in advance of its fulcrum.

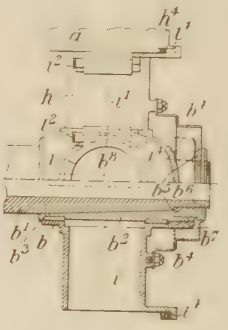
1,414,741. ELECTRICAL VACUUM DISCHARGE DEVICE. EDWIN W. KELLY, Oak Park, Ill., assignor, by mesne assignments, to Victor X-Ray Corporation, Chicago, Ill., a Corporation of New York. Filed Oct. 6, 1919. Serial No. 328,628. 6 Claims. (Cl. 250—35.)

1. An electrical vacuum discharge device comprising, in combination, its insulating enclosing shell, containing a cathode and an anode, the latter extending through a tubular extension on said shell, and means supported on said extension and located wholly exterior of said shell and approximating the anode for charging the exterior of said shell with the same polarity, and unchanging, as



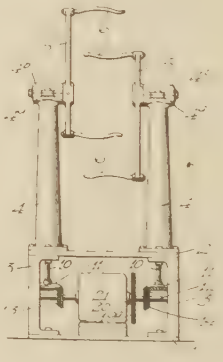
that of the anode, said means being located at such distance from the cathode as to have no major influence on the radiation from said cathode.

1,414,742. SCREW PROPELLER. HENRY LEITNER, London, England. Filed Nov. 4, 1920. Serial No. 421,753. 12 Claims. (Cl. 170—159.)



1. A screw propeller comprising blades built up of metal laminæ and provided with stems, a hub provided with sockets to receive said stems, means for adjusting said stems in said sockets for varying the pitch, said blade stems being made integral with one or more of said laminæ.

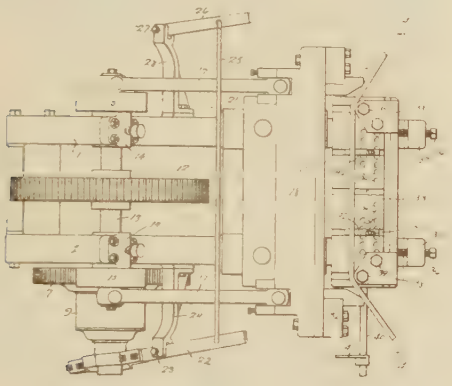
1,414,743. CANDY-PULLING MACHINE. RAYMOND LOPEZ, San Diego, Calif., assignor of one-half to Alfred Butts, San Diego, Calif. Filed May 10, 1920. Serial No. 380,079. 1 Claim. (Cl. 107—30.)



A candy machine, including a supporting casing, a single drive shaft revolubly mounted in said casing across the middle thereof, bevel gears secured to said shaft near each end, arms supported on said casing extending upwardly at an angle in opposite directions from each other and in alinement with said drive shaft, a shaft longitudinally journaled in each of said arms in angular position to said drive shaft, bevel gears on their lower ends engaging the bevel gears on said drive shaft, housings on the upper

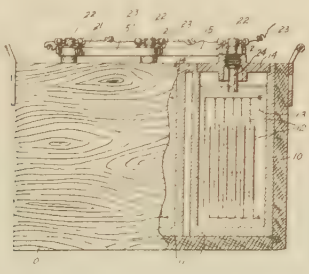
ends of said arms, a shaft revolubly mounted in horizontal position in each of said housings, bevel gears connecting said angular positioned shaft with said horizontal shaft and a double crank arm secured to the inner ends of each of said horizontal shafts, the one extending only one-half the distance as the other and positioned opposite to each other and candy pulling arms secured to both extended ends of said arms so positioned and timed that one of the arms on one of said revoluble arms passes intermediate the other two arms with their revolution.

1,414,744. POWER MACHINE FOR BENDING METAL BARS OR RODS. MICHAEL H. MCKENNA, Cleveland, Ohio. Filed Dec. 5, 1921. Serial No. 519,951. 2 Claims. (Cl. 153—21.)



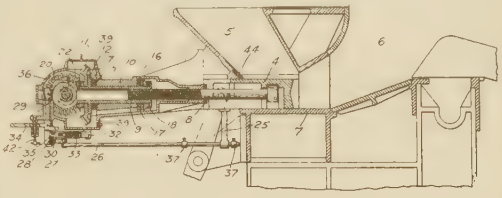
1. In a bending machine, the combination of a reciprocating cross head, a face plate secured to the front thereof and having rows of holes extending across the same, dies provided with attaching devices engaging in said holes, and adjustable laterally to vary their position on the face plate, a bed plate having rows of holes extending across the same, and also having a plurality of slots therein, dies mounted on top of the bed plate and having attaching devices engaged in the holes therein and adjustable laterally to vary their position on the bed plate, and work holders mounted in the slots, between the dies.

1,414,745. ELECTROLYTE INDICATOR FOR STORAGE BATTERIES. REGINALD W. MILLARD, Meriden, Conn., and MAURICE A. MICHAELS, Cambridge, Mass., assignors to Foster, Merriam & Company, a Corporation of Connecticut. Filed June 17, 1919. Serial No. 304,837. 2 Claims. (Cl. 177—339.)



1. A liquid level indicator for multiple cell electrolytic apparatus comprising electrolyte engaging contact members associated with each cell, an electric circuit including as portions thereof said members and portions of the electrolyte above a predetermined level in the several cells, said contact members being connected in series, and said circuit also including electrically operated indicating means.

1,414,746. FUEL-FEEDING MECHANISM. CHARLES F. MILLER, Morton, and ROBERT M. ALLEN, Swissvale, Pa., assignors to Westinghouse Electric & Manufacturing Co., a Corporation of Pennsylvania. Filed Sept. 8, 1917. Serial No. 190,385. 4 Claims. (Cl. 74—14.)

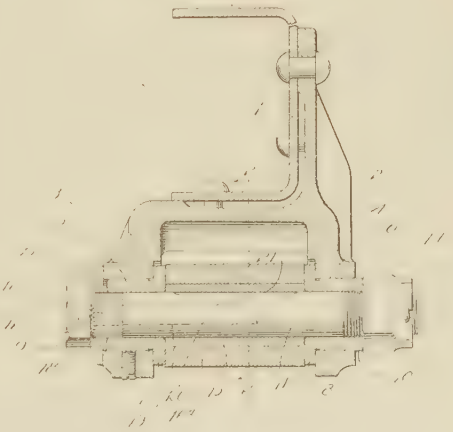


1. Gearing comprising in combination, a gear case adapted to contain a lubricant, a rotatable sleeve fitting closely within a corresponding portion of the casing and opening into the same, gear means within the case for alternately rotating the sleeve in opposite directions, a screw cooperating with one end of the sleeve and adapted to be moved longitudinally when the sleeve is rotated and a member carried by the screw adapted to be reciprocated thereby.

1,414,747. PISTON OR COMPRESSION RING. FREDERICK MUELLER, Irvington, N. J. Filed Mar. 20, 1919. Serial No. 283,847. 2 Claims. (Cl. 74—109.)

1. A piston-ring comprising a single split annulus having a true outer cylindrical and smooth contacting surface and straight sides, the inner annular surface-portion being provided with a series of annular ribs of convex cross-section and an intermediate annular depression throughout of greater density than said contacting surface.

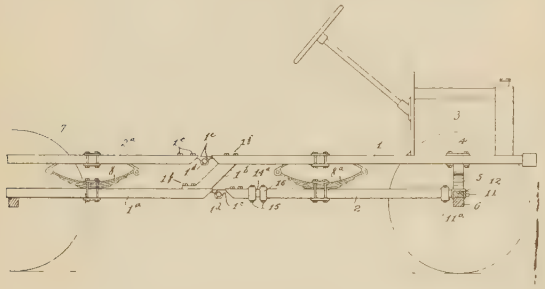
1,414,748. SPRING HANGER. HERMAN D. PALMER, Hartford, Wis., assignor to Kissel Motor Car Company, a Corporation of Wisconsin. Filed Dec. 29, 1920. Serial No. 433,954. 8 Claims. (Cl. 267—54.)



6. In a spring connection, in combination with a leaf spring having its end forming an eye, a bearing sleeve supported in the eye, a bolt passing through said sleeve and having a head on one end and a nut on the other, a pair of bushings mounted on said bolt having radial flanges in bearing contact with opposite ends of said spring eye and sleeve, longitudinal serrations formed on said bolt adapted

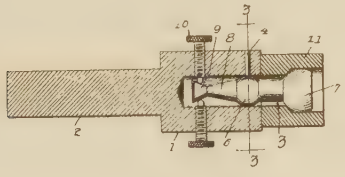
to engage one of said bushings in non-rotatable relation, a support having a bearing carrying one of said bushings, said bearing being of greater length than said bushing, and a second support having a bearing carrying the other of said bushings, the outer end of said latter bushing extending a substantial distance outwardly from its said bearing.

1,414,749. VEHICLE CHASSIS. CHARLES F. PENN, Spokane, Wash., assignor of one-half to Raymond O. Scambler, Spokane, Wash. Filed Apr. 6, 1921. Serial No. 459,029. 10 Claims. (Cl. 280—106.5.)



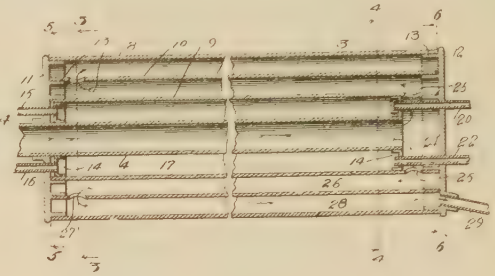
1. A vehicle chassis, comprising a main chassis frame embodying vertically off-set chassis frame sections, and spring resisted oscillatory chassis frame sections carried below the latter.

1,414,750. TOOL. DAVID ROBERTS, Wilkinsburg, Pa., assignor of one-half to Lester Headrick, Wilkinsburg, Pa. Filed Sept. 17, 1920. Serial No. 410,970. 5 Claims. (Cl. 33—169.)



1. A device of the character specified, comprising a socket piece having at one end means for engagement by a chuck or the like, a lever mounted in the bore of the socket piece and having intermediate its ends a ball or spherical portion, and having a keyway at said portion, the socket piece having a key engaging the keyway for permitting the lever to move longitudinally and for restraining it from rotation, said lever extending beyond the socket piece, and means engaging the inner end of the lever for moving it longitudinally and for swinging it laterally on the ball as a fulcrum, said means comprising set screws threaded through the socket piece, the lever having a tapering portion for engagement by the set screws, said lever having a head at its outer end, and a button provided with a bore abutting the end of the socket piece in which the spherical portion or ball is seated the bore of the button being reamed to receive the lever head.

1,414,751. HOT-WATER MOTOR APPLIANCE. CHARLES C. RUMERY and FRANK G. SPATES, Eastport, Me. Filed Nov. 11, 1920. Serial No. 423,469. 3 Claims. (Cl. 257—243.)

2. In an apparatus of the class described, the combination of an outer casing, an inner casing within the outer casing, and an intermediate casing between the inner casing and the outer casing, an exhaust pipe extending into the inner casing, means carried by the inner casing and connected to the exhaust pipe to form a water chamber between the inner casing and exhaust pipe, chambers formed between the inner, intermediate and outer casings, said inner and intermediate casings provided with outlet ports or openings whereby gases may pass from the discharge pipe into the chambers between the inner,

intermediate and outer casings, means carried by the casings for permitting gases to be discharged to the outer atmosphere, and pipes in communication with the water chamber formed between the exhaust pipe and the inner casing.

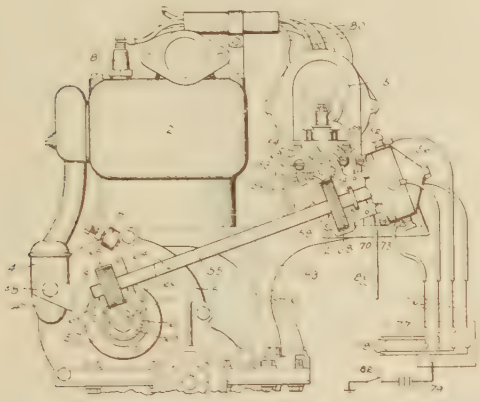
1,414,752. HARD-RUBBER PENCIL. JAMES SALZ, New York, N. Y., assignor, by mesne assignments, to Pencil Products Corporation, New York, N. Y., a Corporation of Virginia. Filed Nov. 27, 1920. Serial No. 426,692. 4 Claims. (Cl. 120—18.)

4. A pencil having a molded composition body having molded therein a plurality of spaced reserve lead compartments.

1,414,753. DRIVING ATTACHMENT FOR IGNITION APPARATUS. WOLFGANG E. SCHWARZMANN, Long Meadow, and CLAYTON H. ALVORD, West Springfield, Mass., assignors to American Bosch Magneto Corporation, Springfield, Mass., a Corporation of New York. Filed Jan. 9, 1920. Serial No. 350,328. 24 Claims. (Cl. 123—149.)

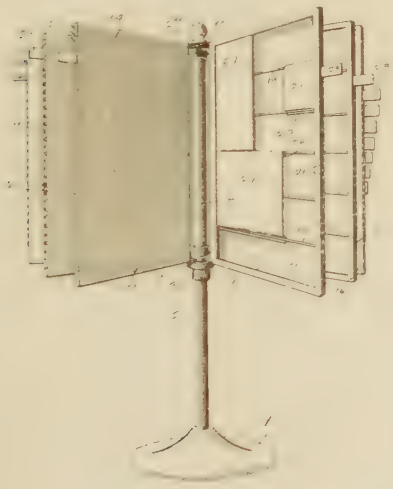
1. The combination with an internal combustion engine, and a magneto for supplying ignition current thereto, of a driving attachment arranged across the front of the engine for driving the magneto from the engine and comprising a gear on a shaft of the engine, a gear on the shaft of the magneto, a rotatable drive shaft carrying cooperative gears meshed with the respective gears on

said shafts, a housing enclosing the meshed gears at the shaft of the engine, and another housing enclosing the



meshed gears at the shaft of the magneto, both of said housings providing bearings for the drive shaft.

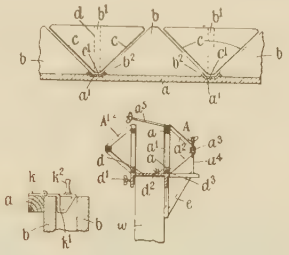
1,414,754. ROTARY INDEX. ERNEST R. SMITH, San Francisco, Calif. Filed June 30, 1920. Serial No. 393,444. 4 Claims. (Cl. 40—102.)



1. A rotary index comprising a suitable standard; an apertured element rotatably mounted upon the standard; a plurality of leaves having lugs formed integral with the upper and lower inner corners to rotatably engage the apertures in the rotatable element and likewise horizontal members; and a plurality of variously sized units adapted to detachably engage and be suspended from said horizontal members, and arranged to display subject matter of said index.

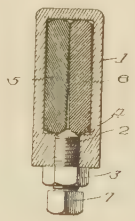
1,414,755. GUIDING MEANS TO AID IN LAYING WALLS OF BLOCKS. WILLIAM H. SMITH, Thames Ditton, England. Filed May 9, 1921. Serial No. 468,044. 9 Claims. (Cl. 33—85.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

1. A guide for facilitating the erection of block walls, comprising saddles adapted to fit on the top of a course of blocks previously laid, a former supported by the saddles adapted to guide the blocks of a course being laid into position, spacing elements mounted on the former adapted to engage the ends of the blocks and provide space for pointing, and means for bracing and adjusting said former on the saddles.



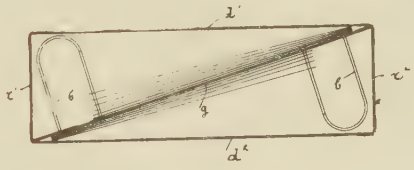
9. A guide for facilitating the erection of block walls, comprising saddles adapted to fit on the top of a course of blocks previously laid, a former supported by the saddles adapted to guide the blocks of a course being laid into position, brace members extending from the former, brackets carried by the saddles, and adjusting means engaging the brackets and brace members for adjusting the former.

1,414,756. CLAMP. WILLIAM A. STARCK, Milwaukee, Wis., assignor to Badger Manufacturing Corporation, Milwaukee, Wis., a Corporation of Delaware. Filed Aug. 23, 1921. Serial No. 494,702. 8 Claims. (Cl. 293—55.)



2. A clamp comprising a collar for embracing two members which are to be clamped and held in fixed relation, and means carried by the collar and adapted to engage adjacent edges of the two members thereby to wedge the same within the collar.

1,414,757. LETTER FILE OR REGISTRATOR. OTTO STAVENHAGEN, Charlottenburg, near Berlin, Germany. Filed Mar. 24, 1917. Serial No. 157,272. 5 Claims. (Cl. 129—1.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

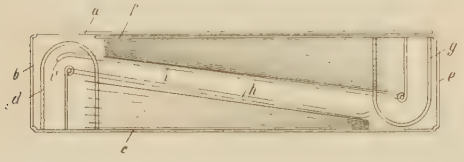


1. The combination with a letter file or portfolio having the form of a book cover and containing inside a device for filing or assembling the papers to be stored in the letter file, of a second filing device attached to the one side part of the first letter file and opening in the opposite direction to the latter.

5. A portfolio comprising an inner supporting member, a filing bow on one side of said member adjacent one end thereof, a back portion connected to the supporting member near said bow, a cover connected to the back

portion and extending over the loop and supporting member, and a loop, back, and cover connected to the support at the opposite end and side thereof.

1,414,758. LETTER FILE OR REGISTER. OTTO STAVENHAGEN, Charlottenburg, near Berlin, Germany. Filed May 7, 1917. Serial No. 166,913. 6 Claims. (Cl. 129—1.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

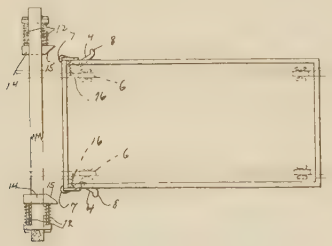


4. A letter file comprising a cover, a filing device mounted thereon near one end thereof, a carrier in hinged connection with the other end of said cover and adapted to be folded over the latter, a filing device on the carrier adjacent said hinged connection and adapted to be contained between the cover and carrier and a cover for the carrier connected to the first named cover.

1,414,759. MOTOR FUEL. ELBRIDGE W. STEVENS, Baltimore, Md., assignor to Chemical Fuel Company of America, Inc., Louisville, Ky., a Corporation of Delaware. Filed Mar. 9, 1920. Serial No. 364,386. 1 Claim. (Cl. 44—9.)

A motor fuel of the same general character as gasoline consisting of a petroleum distillate, alcohol, a hydrocarbon blending agent and a small amount of a readily volatile formic acid ester.

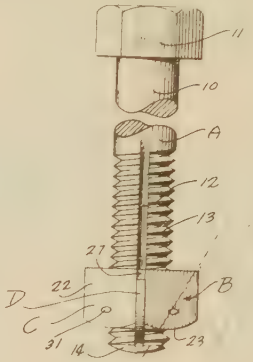
1,414,760. AUTOMATIC MINE-CAR-DOOR OPENER. FASTEN SZEMANSKE, Parsons, Pa. Filed Dec. 1, 1920. Serial No. 427,465. 2 Claims. (Cl. 214—58.)



1. In combination with a mine car having a door pivotally attached thereto, members pivotally mounted on the underside of said car, means on one end of each of said members for gripping said door, a cam-like head on the other end of said member, springs normally urging said gripping means against the edges of said door, and means mounted adjacent the path of said car adapted to contact with said heads to trip said members so as to release said door from said gripping means.

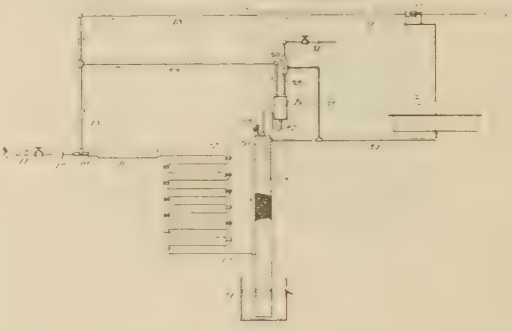
1,414,761. LOCK BOLT AND NUT. GEORGE HENRY THAMANN, Covington, Ky. Filed Mar. 10, 1921. Serial No. 451,886. 2 Claims. (Cl. 151—6.)

1. A lock nut of hexagonal formation having a screw threaded aperture centrally therein and provided with a slotted opening diagonally therein extending from the juncture point of adjacent sides and toward the center of said nut, a pawl pivoted in said slot, and spring means in said slot for normally forcing one end of said pawl toward the screw threaded opening in said nut, said spring forcing the other end of said pawl to project from the juncture point of the adjacent sides in which said slot is formed, in such manner that a wrench may be used on said nut for engaging the spring forced end of said pawl



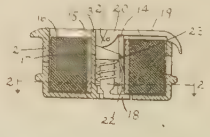
projecting from the juncture point of said nut and to rock the other end of said pawl outwardly and away from the screw threaded opening in said nut for disconnecting the nut from a bolt.

1,414,762. METHOD OF MAKING HYDROCHLORIC ACID. CLINTON PAUL TOWNSEND, Washington, D. C., assignor to Hooker Electrochemical Company, New York, N. Y., a Corporation of New York. Filed Mar. 1, 1920. Serial No. 362,257. 3 Claims. (Cl. 23—1.)



1. Method of producing hydrochloric acid comprising confining a body of hydrogen in a substantially closed system; supplying chlorin to the system at substantially constant rate and effecting its combination with a portion of the hydrogen; withdrawing the resulting hydrochloric acid from the system; and maintaining the desired pressure within the system by the regulated supply of hydrogen thereto.

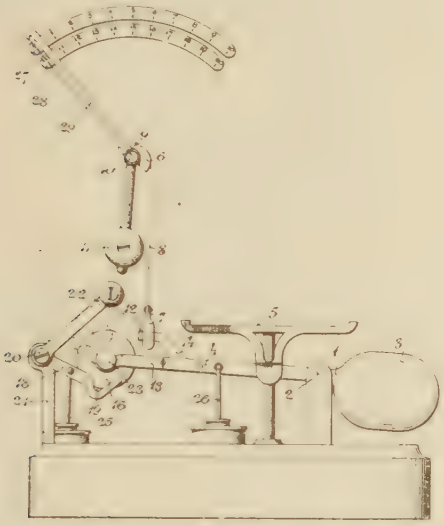
1,414,763. SEWING-MACHINE BOBBIN CASE. LUCIUS E. WEAVER, East Hampton, Conn., assignor to Summit Thread Company, East Hampton, Conn., a Corporation of Maine. Filed Feb. 28, 1921. Serial No. 448,686. 1 Claim. (Cl. 112—233.)



In a sewing-machine bobbin case having a tubular post, constituting a bearing on which a universally wound bobbin is rotatable, and provided with a longitudinal slot, and bobbin-confining and ejecting means associated with

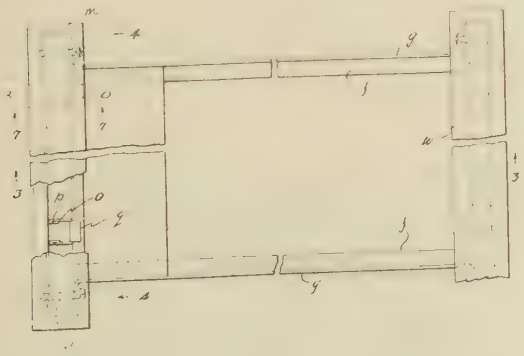
said post, said means including a plunger within the post, having a bobbin-ejecting tongue; a resilient bobbin-controlling tongue attached to said plunger at a point out of the bobbin-containing space, and within the post, and normally projecting through the post slot and into the bobbin-containing space, said tongue being adapted to be pressed inward from its normal position by the core of a bobbin applied to the post, and to yieldingly retard the rotation of the bobbin.

1,414,764. PENDULUM SCALE. SÖREN WISTOFT, Copenhagen, Denmark. Filed Oct. 7, 1921. Serial No. 506,126. 1 Claim. (Cl. 265—61.)



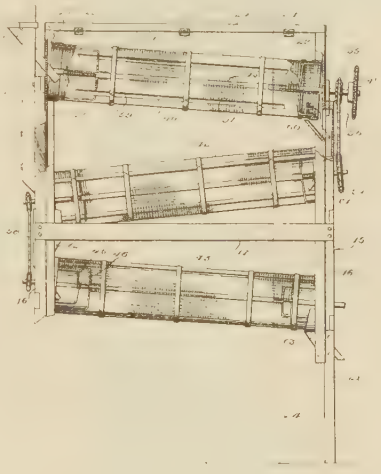
In a pendulum scale, in combination with the balance beam having the usual counterpoise on its shorter arm, a throw-over weight fitted to an extension of the longer arm of said balance beam, means for lifting said throw-over weight off said extension into an inoperative position, the weight of said throw-over weight and of the said counterpoise being so determined that, if the scale is made to normally weigh up to a maximum weight of V kg. (when the said throw-over weight is hung on the said extension), weighings from V kg. to 2V kg. may be performed, when the said throw-over weight is lifted into inoperative position.

1,414,765. SHEET-METAL BED. FRANK P. WILLIAMS, Detroit, Mich. Filed Apr. 27, 1921. Serial No. 464,920. 12 Claims. (Cl. 5—4.)



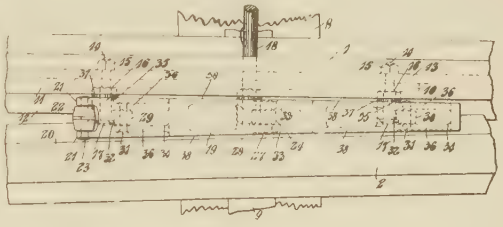
1. In sheet metal furniture, a member for use as a head, foot-board or similar relation, comprising a pair of parallel plates with turned-out lock-seam folds turned back to parallel the plates and each other and a pair of post strips comprising channels having turned-in lock-seam folds paralleling the side walls of the channel adapted to engage the lock-seam folds of the plates to lock the plates together and form the composite member.

1,414,766. ROTARY DRIER. LAWRENCE OTTO WITHUN, Capac, Mich. Filed Sept. 24, 1921. Serial No. 502,841. 10 Claims. (Cl. 34—6.)



4. In a drum for a rotary drier, a central shaft, a skeleton rigidly secured on said shaft, and a cylinder, having open ends, attached to said skeleton, said skeleton comprising a pair of end rings, a plurality of braces connecting said rings to said shaft, longitudinal ribs secured to said rings, and intermediary hoops secured to said ribs, said cylinder having sides of wire mesh and reinforced ends.

1,414,767. SWITCH-RAIL GUARD. FRANK C. ANDERSON, Cincinnati, Ohio. Filed Nov. 12, 1921. Serial No. 514,773. 20 Claims. (Cl. 238—380.)

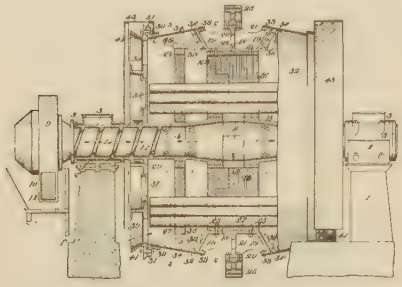


1. A guard element, means for mounting said guard element between diverging rails of a switch, and a roller at one end of said guard element.

1,414,768. ROD MILL. FREDERICK J. BEHNEMAN, San Francisco, and HAROLD S. REXWORTHY, Sunnyvale, Calif. Filed Nov. 7, 1921. Serial No. 513,470. 11 Claims. (Cl. 83—9.)

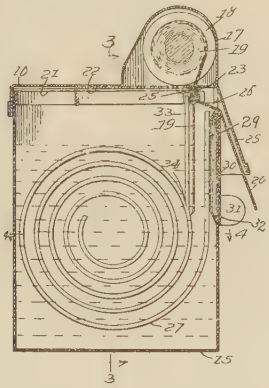
1. An axially rotating crushing apparatus comprising feed means adapted to supply material to the center of said apparatus, a plurality of groups of crushing members arranged annularly about the same and fixed with respect one to the other, means for rotating said groups in unison

about the axis of rotation of the apparatus, a shell enclosing said groups, means for introducing material to be



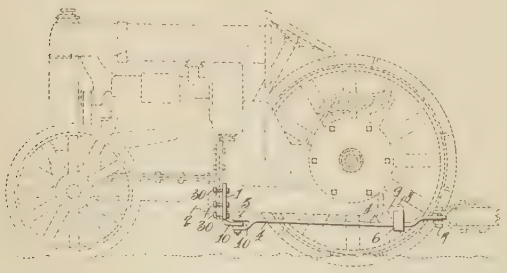
crushed to said groups midway of their length, and a series of outlets for the crushed material at the opposite ends of said shell.

1,414,769. METHOD OF AND APPARATUS FOR DEVELOPING FILMS. GEORGE C. BEIDLER, Rochester, N. Y. Filed Mar. 31, 1917. Serial No. 158,816. 9 Claims. (Cl. 95—90.5.)



1. A device relating to photography and comprising a receptacle, movable supporting means carried therein, and a film holder comprising a coil whose convolutions are of increasing diameter mounted within the receptacle upon said supporting means with the axis of the coil parallel to th direction of motion of said supporting means.

1,414,770. DRAWBAR HITCH FOR TRACTORS. FLOYD M. BLAIN, Central Point, Oreg. Filed June 21, 1921. Serial No. 479,337. 1 Claim. (Cl. 213—67.)

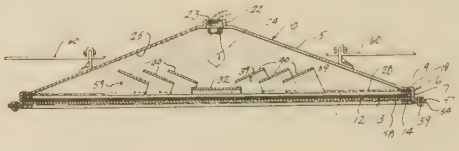


A draw bar hitch for tractors, comprising a semi-circular member having bolt holes to match up with the bolt holes of the crank case of an engine and adapted to be secured thereto by the bolts which connect the crank case parts together, said semi-circular member having a loop projecting in a direction substantially at right angles to the plane of the semi-circular member, a draw bar having a bifurcated end, and a bolt for flexibly connecting said draw bar with said loop, a horizontally disposed guide loop adapted to be secured to the rear end of the tractor frame through which said draw bar projects, said guide loop having a series of pin holes, and stop pins held in said pin holes for the purposes specified.

1,414,771. DEVICE FOR SUPPORTING COOKING UTENSILS. FRANK WILTON CANTLEBERRY, Sisquoc, Calif. Filed Oct. 24, 1918. Serial No. 259,565. 1 Claim. (Cl. 126—30.)

In a device of the class described, a standard, a closed collar slidably and rotatably fitted upon the standard and adapted to be supported at positions of vertical adjustment thereon through the binding engagement of its wall against the surface of the standard, the collar having a shank portion projecting outwardly therefrom and terminating in a downwardly extending portion having a shoulder, spaced members projecting from the opposite sides of the said portion and pivoted thereon, and a supporting arm mounted between the spaced members and having a downwardly projecting portion located adjacent to and providing a shoulder for abutment against the first mentioned shoulder whereby to limit the downward swinging movement of the arm upon its pivot, the arm being movable in an upward direction upon its pivot to extend beside the standard in folded position.

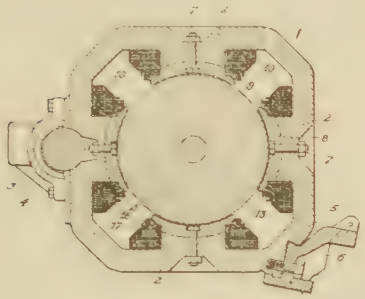
1,414,772. ILLUMINATED LICENSE-PLATE HOLDER AND REFLECTOR. CECIL CLEMENTS, JAMES W. SWART, and CHARLES E. NUTBROWN, Rochester, N. Y. Filed Oct. 3, 1921. Serial No. 504,991. 9 Claims. (Cl. 40—133.)



1. As an article of manufacture, a deflector device comprising a substantially rectangular frame having a central

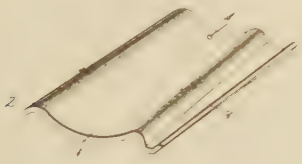
deflecting plate transversely thereof and flat deflecting plates on each side of said central deflecting plate inclined toward said central deflecting plate.

1,414,773. COIL RETAINER. FREDERICK C. COSEO, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Filed Apr. 17, 1917. Serial No. 162,726. 1 Claim. (Cl. 171—252.)



In a coil retainer of the class described, the combination with a dynamo electric machine comprising a field frame having inwardly projecting poles with laterally projecting pole tips and field coils upon the poles, of pairs of non-magnetic pole-encircling members interposed between said pole tips and said coils, and a plurality of independent and separately removable springs arranged to force said members apart thereby exerting outward pressure upon said coils.

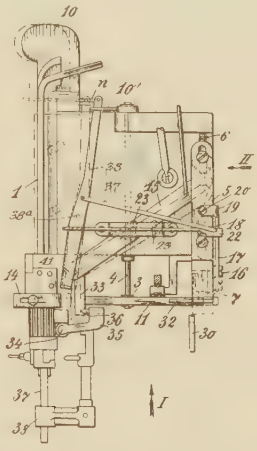
1,414,774. ROOFING TILE. ANGELO DE JULIAN, West Palm Beach, Fla. Filed Sept. 16, 1920. Serial No. 410,806. 2 Claims. (Cl. 108—10.)



1. A tile of plastic material having a body portion curved transversely and adapted to be laid with its concaved face upwardly, each tile having at one side edge a downwardly curved portion extending the full length of the side edge and having at the other side edge a longitudinally extending trough extending the full length of the said side edge, the tile having a transversely extending rib on its lower face and near its lower end for engaging the top of the adjacent tile in the preceding course.

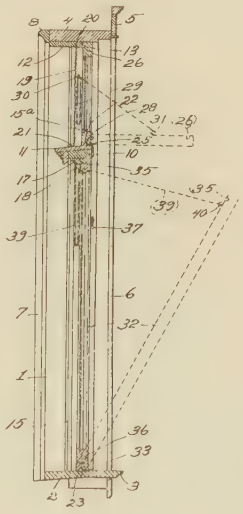
1,414,775. TYPOGRAPH MATRIX-SETTING AND LINE-CASTING MACHINE. JULIUS DÖRNETH, Berlin, Germany, assignor to Typograph G. m. b. H., Berlin, Germany, a Corporation of Germany. Filed Oct. 27, 1914. Serial No. 868,858. 7 Claims. (Cl. 199—4.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

1. In a matrix setting and line casting machine, the combination with the matrix bars each having a plurality of type matrices formed thereon, and guiding members for assembling and distributing the matrix bars, of a shiftable strip providing a support for the matrix bars for holding the same in set position when setting special type, a slide movable in a direction substantially perpendicular to the shiftable strip, a link connecting said strip



and slide and disposed at an angle to the direction of the movement of the slide, and operating means for the slide.

1,414,776. WINDOW CONSTRUCTION. JOHN ELNIFF, Kansas City, Mo. Filed July 25, 1921. Serial No. 487,220. 2 Claims. (Cl. 20—53.)

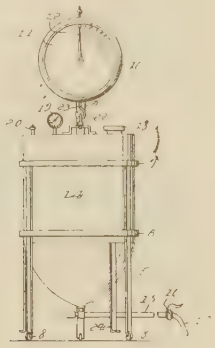


1. In a window construction, a frame having top and side stops provided respectively with horizontal and vertical inwardly-projecting tongues occupying the same vertical plane, and a sill having a horizontal upwardly-projecting tongue, the tongue of the sill having flat faces and the outer face sloping upwardly and inwardly, in combination with a sash fitting snugly within the frame and against the inner edges of the top and side stops, and provided with horizontal and vertical grooves receiving the horizontal and vertical tongues, respectively, the said sash having a horizontal hinge connection with the said sill approximately concentric with respect to the sloping face of the tongue of the sill, and at an intermediate point of its lower edge, having a groove conforming in cross section to and snugly receiving the last-named tongue and contacting therewith in a plurality of planes disposed angularly with respect to each other.

1,414,777. DISPENSING APPARATUS. WALTER J. ELSE, Grand Island, Nebr. Filed Aug. 8, 1921. Serial No. 490,558. 1 Claim. (Cl. 265—27.)

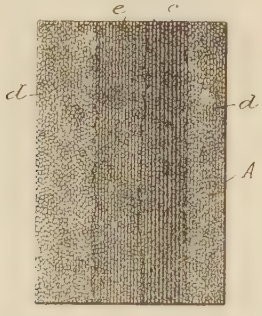
In a commodity dispensing apparatus, a frame comprising upright elements and bands in spaced relation

to each other attached to the upright elements, anti-friction members on the lower ends of the upright elements to permit the frame to be moved and a receptacle movable vertically in the frame, means for suspending



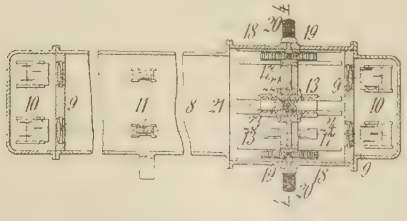
the receptacle including a weighing device and legs on the receptacle adapted to support the said receptacle free of the frame when released from the weighing device, means for supplying air to the interior of the receptacle, and means for discharging the contents of the receptacle.

1,414,778. ROOFING MATERIAL. MORRIS H. ELVIDGE, New York, N. Y. Filed Jan. 3, 1922. Serial No. 526,674. 2 Claims. (Cl. 91—68.)



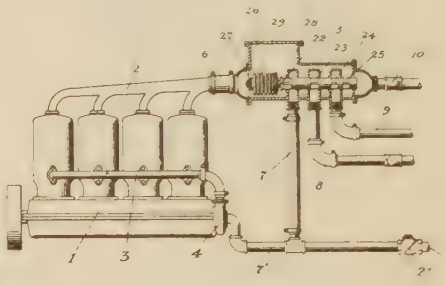
1. A roofing material having a granular material weather surface characterized by distinct parallel areas of contrasting colors and distinct areas of composite color into which the other areas shade, the areas being greater in extent in longitudinal than in transverse direction.

1,414,779. TELEMETER SYSTEM. OTTO EPPENSTEIN, Jena, Germany, assignor to the Firm of Carl Zeiss, Jena, Germany. Filed Apr. 17, 1914. Serial No. 832,628. 5 Claims. (Cl. 88—2.7.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



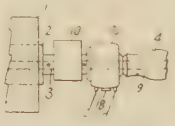
1. In a telemeter system a plurality of telemeters, a setting device for measuring purposes contained in each telemeter and an indicating device common to the said telemeters and consisting of a scale and an index, at least one of which two parts being movable, and means for coupling the said setting devices and the said indicating device and for causing a relative movement of the two parts of the said indicating device, which movement corresponds to a mean value of the values given by the single telemeters.

1,414,780. COOLING SYSTEM FOR INTERNAL-COMBUSTION ENGINES. JEAN V. GIESLER, Knoxville, Tenn., assignor to The Fulton Company, Knoxville, Tenn., a Corporation of Maine. Filed Aug. 19, 1916. Serial No. 115,866. 31 Claims. (Cl. 123—174.)



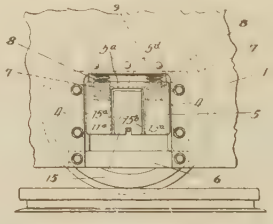
1. In combination with an internal combustion engine a cooling system therefor comprising a plurality of radiator sections, and unitary means for consecutively connecting and disconnecting a plurality of said sections into and from said cooling system.

1,414,781. ROTARY BRUSH. SIDNEY HUFF, New York, N. Y. Filed July 17, 1919. Serial No. 311,645. 1 Claim. (Cl. 15—23.)



In a device of the class described, a brush, a brush shaft and end plates provided with screws for attaching the brush to said shaft, handles on opposite sides of the brush, and longitudinally aligned means for operating said shaft and brush, and detachable means adapted to be placed intermediate said brush shaft and said operating means, whereby said brush shaft may be directly or indirectly connected to said operating means.

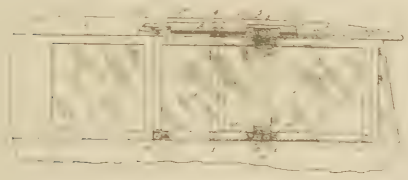
1,414,782. AXLE JOURNAL BOX. NILS D. LEVIN, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Filed July 28, 1914. Serial No. 853,770. 4 Claims. (Cl. 105—224.)



1. In a mechanism for mounting and holding a car axle, having a journal part and a wheel inside of said

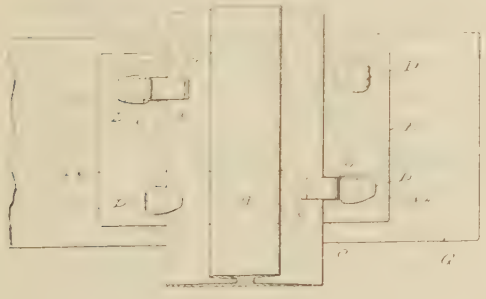
journal part, the combination of a journal box engaging with the journal part of the axle, a thrust element removably connected to the axle, an oppositely situated second thrust element, said thrust elements being arranged to bear against each other at points which are proximate to the axis of the axle, and a carrier for the second thrust element adapted to hold it stationary axially of the axle and to be moved bodily therewith independently of the box and of the axle.

1,414,783. SLIDING SIDE LIGHT FOR MOTOR VEHICLES. EDWARD J. LIENIZ, San Francisco, Calif., Lillian Lieniz being administratrix of said Edward J. Lieniz, deceased. Filed May 6, 1920. Serial No. 380,010. 8 Claims. (Cl. 296—47.)



1. A sliding side light device for motor vehicles comprising a plurality of guide plates having upwardly turned edges upon the lower side thereof, said plates being adapted for attachment to the top of a motor vehicle in longitudinally spaced pairs; a plurality of retaining guide plates having downwardly turned edges upon the upper side thereof mounted in pairs to span the spaces between said supporting tracks; side lights slidably mounted upon said guide tracks; and means for retaining said side lights in an open or closed position.

1,414,784. RAIL FASTENER. EMERY M. MCVICKER, Milwaukee, Wis. Filed Dec. 8, 1920. Serial No. 429,092. 17 Claims. (Cl. 238—304.)



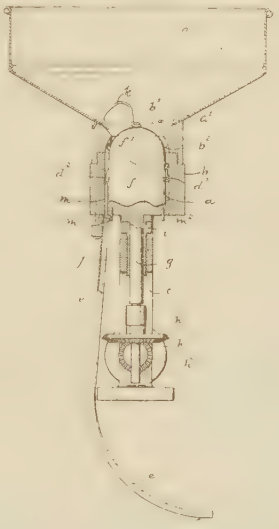
3. A fastener for railway rails, including a tie plate having a pair of upwardly inclined shoulders, a rail clip embracing an edge of the rail flange and engaging between said shoulders to limit the upward movement of the rail from said tie plate, and means for retaining said clip in rail securing position.

1,414,785. ROCKING TOY. CHARLES E. MORRIS, Leavenworth, Kans., assignor to Charles W. Parker, Leavenworth, Kans. Filed June 7, 1920. Serial No. 387,060. 2 Claims. (Cl. 46—22.)

1. A rocking toy having a body adapted to support a person, means for rockingly supporting the body, the body having a portion simulating an animal's head, the head having a pivoted jaw arranged to swing to an open

and shut position when the body is rocked, substantially as set forth.

1,414,786. ATTACHMENT FOR FEEDING CUPPED ARTICLES. BERTHOLD NAGY and STEPHEN NAGY, Brooklyn, N. Y. Filed Apr. 21, 1921. Serial No. 463,291. 12 Claims. (Cl. 79—17.)

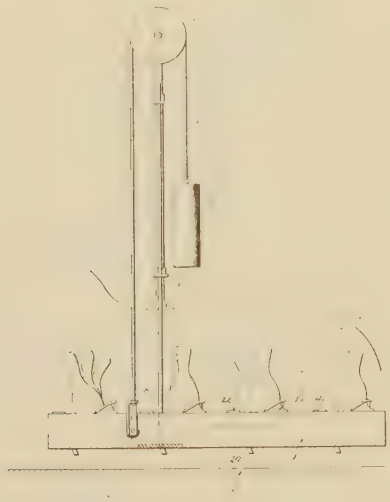


1. An attachment for feeding cupped articles consisting of a hopper adapted to receive cupped articles in bulk, having an inclined bottom leading to an outlet opening therein, a chute through which said articles are adapted to descend by gravity, a delivery head opening into said hopper outlet and having therein a runway inclining towards and terminating adjacent the inlet of said chute, a positioning device cooperating with said delivery head comprising a rotatable member having a cylindrical portion concentric with and within said runway and a rounded portion presented towards said hopper, and extending adjacent and within the open top of said delivery head, whereby said articles are permitted to pass between said positioning device at any point thereof and the wall of said delivery head only when the cupped side thereof is presented toward said rounded surface, an agitator within said hopper adjacent said delivery head, and means whereby said positioning device and said agitator are actuated.

1,414,787. PIN-SETTING MECHANISM. ALFRED N. OLSEN, Rock Rapids, Iowa, assignor to Victor Pin-Setter Company, Rock Rapids, Iowa. Filed Feb. 28, 1921. Serial No. 448,402. 6 Claims. (Cl. 46—54.)

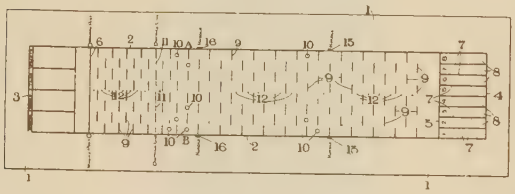
2. In pin setting mechanism, a pin-receiving unit comprising spaced walls, an upright abutment member upon one of said walls, the other wall having an inclined surface, the upper and lower portions of which are relatively offset, and a bolstering member mounted within

the unit and having means riding in engagement with the inclined surface of the last-mentioned wall, the



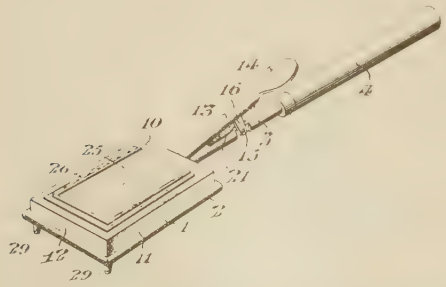
bolstering member having a floor-engaging part to influence upward movement of the member when the unit is lowered.

1,414,788. APPLIANCE FOR PLAYING RACE GAMES. WILLIAM JAMES PARSONS, London, England. Filed Feb. 1, 1922. Serial No. 533,457. 3 Claims. (Cl. 46—63.)



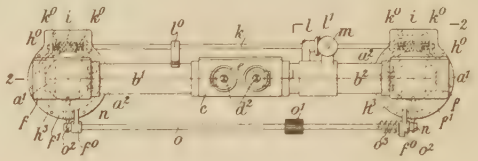
1. In an apparatus for playing race games, including playing pieces representing horses, a chart marked in the form of a race course upon which said horses are moved in the playing of the game, and a pack of cards bearing indications for the moves of the horses upon said chart, said cards including sets of cards limited to each particular horse and sets of cards limited to certain pairs of horses, whereby a single card may control the movement of a single horse or a pair of horses.

1,414,789. ANNEALING DEVICE. CLARENCE E. PYLE, Philadelphia, Pa., assignor to The S. S. White Dental Manufacturing Company, a Corporation of Pennsylvania. Filed June 23, 1920. Serial No. 391,151. 5 Claims. (Cl. 263—49.)



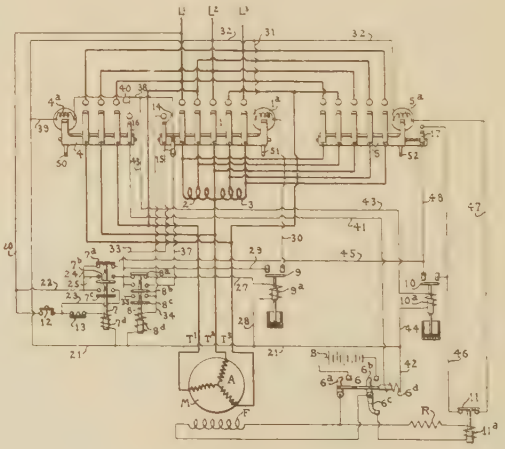
1. A device of the class described, comprising a tray having a movable cover forming a closed chamber, and a removable transparent window in said cover.

1,414,790. HORIZONTAL TELEMETER. FRANZ RIEDINGER, Jena, Germany, assignor to the Firm of Carl Zeiss, Jena, Germany. Filed Feb. 5, 1915. Serial No. 6,312. 2 Claims. (Cl. 88—2.7.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



1. In a horizontal telemeter containing the base-line within the instrument, a measuring device, an ocular system, an ocular reflecting system, at either side of the said ocular reflecting system, an objective lens and a deflecting device, the said deflecting devices being adapted to displace in the direction of the base-line the images formed from the ray pencil systems entering the instrument at either end of the base-line, actuating means for effecting a joint displacement of the two images in the same direction by a joint alteration of the setting of the said deflecting devices, means for yieldingly coupling the said actuating means and the said deflecting devices and two locking devices independent from the said actuating means, each locking device being adapted to cooperate with one of the said deflecting devices.

1,414,791. CONTROLLER FOR SYNCHRONOUS MOTORS. EDWIN W. SEEGER, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Feb. 12, 1921. Serial No. 444,399. 6 Claims. (Cl. 172—289.)



3. The combination with a synchronous motor of means for establishing starting and running connections for said motor and means subjected to control by certain electrical conditions in the field circuit of the motor for establishing plugging connections for said motor upon interruption of the running connections therefor.

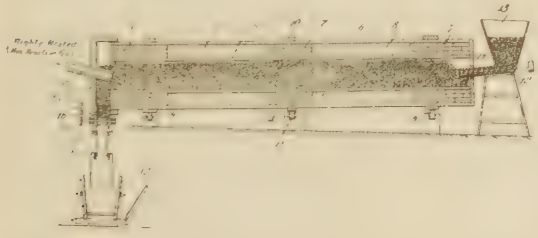
1,414,792. BATHTUB INSTALLATION. EUGENE L. SEITHER, Cleveland, Ohio. Filed Mar. 7, 1921. Serial No. 450,238. 12 Claims. (Cl. 4—24.)

1. A bath tub attachment, comprising a wall mount-

ing for a bath tub fitting and means associated therewith adapted to clamp said mounting in a supporting position

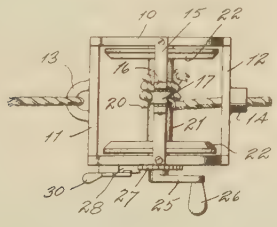
on the tub independently of the wall and adjustably in respect to the face of the wall.

1,414,793. MANUFACTURE OF LITHOPONE. JAMES A. SINGMASTER and FRANK G. BREYER, Palmerton, Pa., assignors to The New Jersey Zinc Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 8, 1922. Serial No. 535,078. 7 Claims. (Cl. 134—78.)



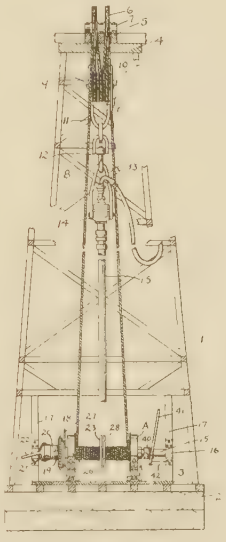
4. The method of calcining lithopone, which comprises heating the lithopone, in large part at least, by passing therethrough and in contact therewith a non-reactive gas and thereby establishing and maintaining a non-reactive environment about the lithopone, said non-reactive gas being introduced into the lithopone at a temperature approximating the temperature at which it is desired to calcine the lithopone.

1,414,794. CLOTHESLINE ATTACHMENT. STANISLAW STAPIENSKI and JAN STAPIENSKI, Jersey City, N. J. Filed Apr. 23, 1921. Serial No. 463,756. 1 Claim. (Cl. 68—3.)



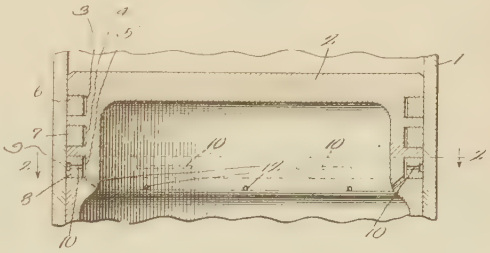
A tension device comprising a frame, an eye at one side of said frame, a winding drum mounted in the frame, a crank arm to rotate said drum, said drum having an opening therethrough, a pawl and ratchet mechanism to hold said drum against unwinding movement, a pulley for supporting the device from the upper run of a pulley line, and a manually operable lever extending outward of said frame whereby the pawl may be disengaged from the ratchet.

1,414,795. HOISTING DRUM. JOHN R. SUMAN, Houston, and ADRIAN R. GAMBLE, Velasco, Tex. Filed Oct. 25, 1920. Serial No. 419,305. 5 Claims. (Cl. 254—145.)



1. In a device of the character described, a compound hoisting drum, comprising a shaft, a power operated wheel thereon, a clutch to throw said shaft in and out of gear with said wheel, a main drum secured to said shaft, a second drum on said shaft and normally idling thereon, hand operated means to connect said second drum to said shaft, a load-sustaining cable having operative connection with both of said drums and means to control the speed of said drums.

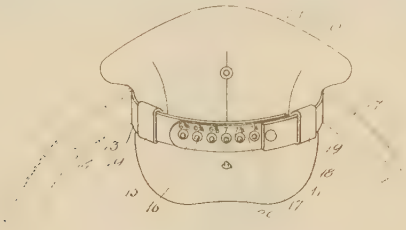
1,414,796. ENGINE. CHARLES N. TEETOR, Hagerstown, Ind. Filed Oct. 22, 1921. Serial No. 509,636. 4 Claims. (Cl. 74—109.)



1. In an engine, the combination with the cylinder thereof; of a hollow piston having a circumferential groove therein; and a packing ring within the groove, said packing ring being formed with an exterior annular channel in a zone between the flat faces of the ring, and elongated outwardly diverging slots in the zone of the channel and opening upon the inner cylindrical surface of the ring, the elongated slots establishing communication between

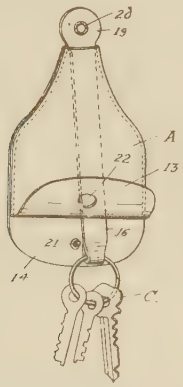
said annular channel and the interior of the ring and being narrower than the channel, said piston having holes establishing communication between its interior and its aforesaid circumferential groove.

1,414,797. CAP. ISIDOR K. TRAU, Louisville, Ky. Filed Jan. 18, 1922. Serial No. 530,121. 2 Claims. (Cl. 2—106.)



1. A cap of the character described, having a body provided with slits extending upward from its bottom edge, straps extending from the rear edges of the slits and overlapping in front of the body, a strip secured to the face of one of the straps and provided with spaced snap button members mounted thereon at predetermined size intervals, said strip having size indicia impressed on the strip adjacent the respective snap button members and a cooperating snap button member on the other strap.

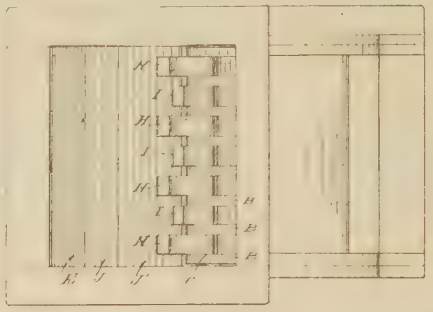
1,414,798. POCKET CASE. PAUL H. WELCKER, St. Paul, Minn., assignor to Brown & Bigelow, St. Paul, Minn., a Corporation of Minnesota. Filed June 24, 1921. Serial No. 480,079. 2 Claims. (Cl. 150—40.)



1. A pocket case comprising, side walls, a connecting member slidably secured between said side walls, an opening for admitting articles secured to one end of said connecting member to be drawn between the sides of said case and means secured to the other end of said connecting member adapted to lock the receiving opening of said case closed.

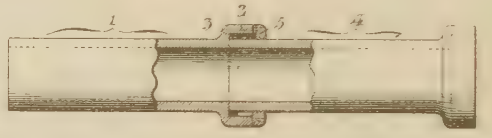
1,414,799. CRUSHER. ARTHUR F. WILLIAMS, St. Louis, Mo., assignor to Williams Patent Crusher and Pulverizer Company, St. Louis, Mo., a Corporation of Missouri. Filed Feb. 17, 1922. Serial No. 537,226. 2 Claims. (Cl. 83—11.)

1. A crusher comprising a casing, a breaker plate, and a rotor having eccentrically pivoted hammers arranged in rows substantially parallel to the axis,—the hammers in each row being alternately of long and short pivotal length relatively to each other, and the short hammers having a relatively larger head to compensate for their



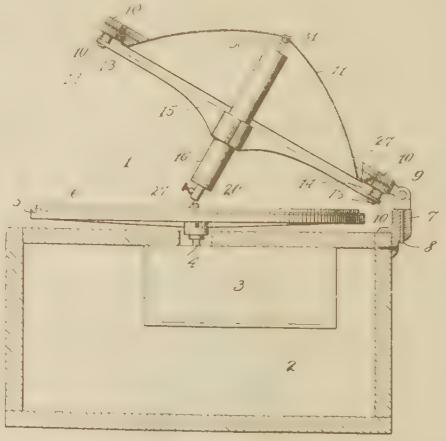
shorter length and to equalize their striking effect compared to the long hammers.

1,414,800. PIPE JOINT AND METHOD OF PRODUCING IT. CHARLES STEWART BABB, Chicago, Ill., assignor to The Barber Asphalt Paving Company, Philadelphia, Pa., a Corporation of West Virginia. Filed Jan. 22, 1921. Serial No. 439,283. 4 Claims. (Cl. 285—118.)



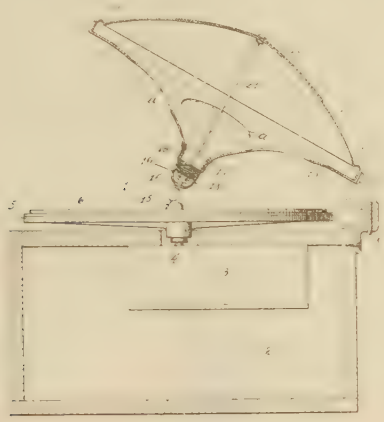
4. The method of forming a pipe joint, which consists in placing within the shoulder of the bell of a pipe section a calking ring of blown hydrocarbon having rubbery and plastic consistency, forcing a spigot of another pipe section within said calking ring whereby the two pipe sections are centered and the joint between them sealed, pouring into the remaining space between the spigot and bell a melted bituminous cement with resulting fusion of the surface of the calking ring and amalgamation of the two materials, and permitting the two to cool and solidify, whereby the resulting pipe joint is strong, and rigid and wholly indestructible by disintegrating influences.

1,414,801. ACOUSTIC DEVICE. GEORGE B. BURCH, New York, N. Y., assignor to Leslie Stevens, Glen Ridge, N. J. Filed Sept. 15, 1919. Serial No. 323,688. 9 Claims. (Cl. 181—32.)



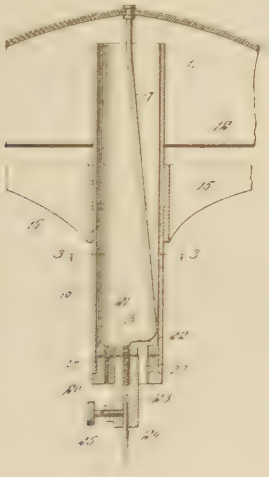
1. An acoustic device, comprising a large, direct, acting, vibratory diaphragm of conoidal form and continuously curved from its axial center outward in all radial directions.

1,414,802. PHONOGRAPH. GEORGE B. BURCH, New York, N. Y., assignor to Leslie Stevens, Glen Ridge, N. J. Filed Sept. 15, 1919. Serial No. 323,687. 10 Claims. (Cl. 274—25.)



1. A device of the class described, comprising two diaphragms with connected flanges, a stylus-holder pivotally mounted in one diaphragm, and a transmission rod connected to the stylus-holder and to the other diaphragm.

1,414,803. PHONOGRAPH REPRODUCER. GEORGE B. BURCH, New York, N. Y., assignor to Leslie Stevens, Glen Ridge, N. J. Filed Apr. 3, 1918, Serial No. 226,382. Renewed Aug. 2, 1921. Serial No. 489,199. 2 Claims. (Cl. 274—25.)



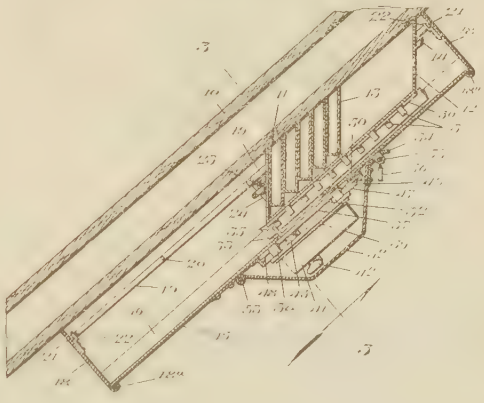
2. In a phonograph reproducer, the combination with a diaphragm, and supporting means therefor, of a stylus holder mounted axially of the diaphragm and at a distance therefrom, the stylus holder being carried by a perforated thin disk peripherally supported from said supporting means in a plane transverse to the axis of the diaphragm and having a horseshoe opening extending about its central supported portion, and a transmission connection extending from the stylus holder to the diaphragm.

1,414,804. PHONOGRAPH. GEORGE B. BURCH, New York, N. Y., assignor to Leslie Stevens, Glen Ridge, N. J. Filed June 12, 1918, Serial No. 239,536. Renewed Aug. 2, 1921. Serial No. 489,200. 3 Claims. (Cl. 274—25.)

1. Phonograph apparatus comprising in combination with an outwardly bulging, large, direct-acting diaphragm, supporting means providing an edge support for the diaphragm and supporting axially of the diaphragm a stylus holder, a sylus holder mounted in said supporting means to be capable of vibratory oscillation, and a flexible trans-

mission rod connected to the stylus holder and to the diaphragm, said rod extending substantially straight from the diaphragm to a point adjacent but laterally offset from the axis of oscillation of the stylus holder.

1,414,805. AUTOMATIC SAMPLER. SEWARD E. COGSWELL, Central City, Nebr. Filed Apr. 30, 1920. Serial No. 378,005. 10 Claims. (Cl. 226—19.)

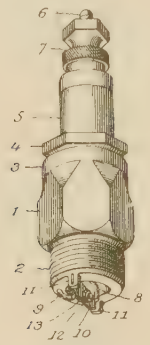


2. A device of the kind described embodying a casing having doors at opposite ends for the insertion and removal of a tray, latch levers mounted within the casing, said levers and doors having portions to interengage for holding the doors closed, operating bars connected to said levers and extending through the bottom of the casing for operating said levers, and a hood for enclosing the outer terminals of said bars and having means for locking it to the casing.

1,414,806. SPARK PLUG. JAMES G. DICKSON, Chicago, Ill., assignor of one-third to Walter F. Wolf, Chicago, Ill. Filed July 3, 1919. Serial No. 308,589. 2 Claims. (Cl. 123—169.)

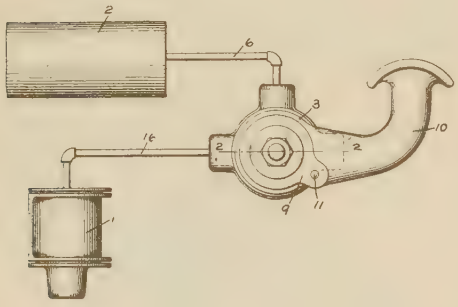
1. In a spark plug having supply and return terminals at its lower end, the combination of a transversely extend-

ing bridge plate of insulating material secured to the lower end of the spark plug by a pair of depending and



diametrically opposed saddle posts, and a conducting block carried by such bridge plate in spaced relation to the aforesaid supply and return terminals.

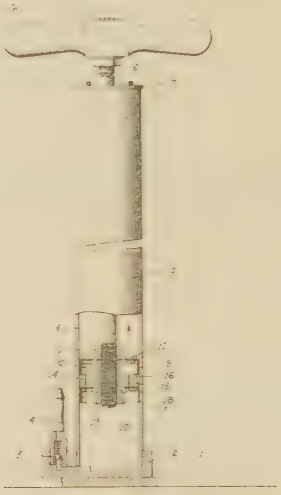
1,414,807. BRAKE-VALVE DEVICE. SAMUEL W. DUDLEY, Edgewood, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed May 13, 1919. Serial No. 296,861. 1 Claim. (Cl. 303—50.)



In a fluid pressure brake for motor vehicles, the combination with a brake cylinder and a source of fluid under pressure, of a valve having positions for supplying and releasing fluid to and from the brake cylinder, and an intermediate lap position, a foot operated lever for operating said valve, a spring tending to return said valve and lever to release position, and means for defining the lap position.

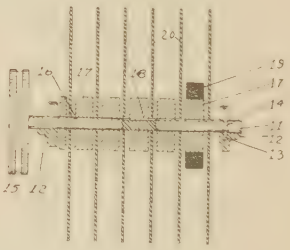
1,414,808. TIRE PUMP. JESSE T. FIESE, Fresno, Calif. Filed Oct. 27, 1919. Serial No. 333,656. 3 Claims. (Cl. 103—63.)

1. A piston mechanism for pumps including an expansible cup fixed on the piston rod and normally spaced slightly from the walls of the pump-barrel, a disc below the cup and adapted to expand the same, the disc being arranged for limited sliding movement of a predetermined extent on the rod, another cup fixed to the disc and bearing constantly against the walls of the barrel, said latter cup and the disc being orificed, whereby when the rod is moved upwardly on the suction stroke the expansible cup is drawn away from the disc and air may pass therearound and through the orifices, but when the rod is pushed down on its pressure stroke the expansible cup



will be forced against the walls of the barrel and the air passageways are stopped up.

1,414,809. REWIND DEVICE FOR MULTIPLE-PROCESS PRINTING PRESSES. RICHARD T. HOSKING, Saginaw, Mich. Filed Apr. 28, 1921. Serial No. 465,169. 3 Claims. (Cl. 242—55.)

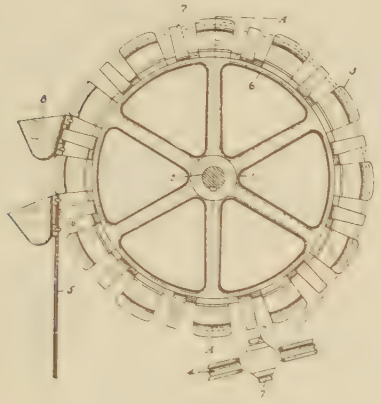


2. In a re-wind device of the class described, the combination of a shaft having removable spools thereon and disks loosely received thereon at the sides of said spools, a pulley fixed to said shaft, and a continuously driven belt so engaging said pulley as to produce a limited and predetermined amount of driving effort, for the purposes set forth.

1,414,810. BUCKET ELEVATOR. WILLIAM WALTER HUDSON, Toronto, Ontario, Canada. Filed Nov. 4, 1919, Serial No. 335,570. Renewed Feb. 23, 1922. Serial No. 538,774. 4 Claims. (Cl. 198—140.)

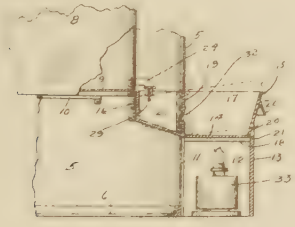
1. The combination with a head wheel having shives circumferentially arranged on the rim thereof, a cable operating over said shives and a bucket carried by said cable, of brackets disposed substantially midway between said shives and projecting outwardly from opposite side

edges of said rim, said brackets being shorter than said shives and with said shives forming cradles, one of which



is adapted to support said bucket during its upward progress around said wheel.

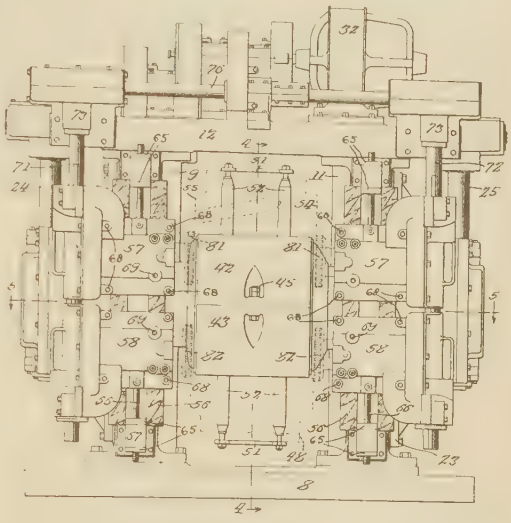
1,414,811. STOCK WATERER. HILDAR E. INGVOLDSTAD, Sioux City, Iowa, assignor to Wm. Warnock Co., Sioux City, Iowa, a Corporation of Iowa. Filed July 29, 1918. Serial No. 247,237. 2 Claims. (Cl. 119—73.)



1. In a stock-waterer, a jacket, a water tank within and spaced from the jacket, the jacket having a side opening extending a distance above the bottom of the tank, a heating compartment including a walled enclosure outside of the jacket and having internal supporting parts, and a trough including side walls, an inner end wall, a bottom and a transverse perforate partition dividing the trough into inner and outer compartments, the trough being positioned with the bottom of its outer compartment within the heating compartment and removably resting on said parts, and its inner compartment extended through said opening to abut and receive water from the tank.

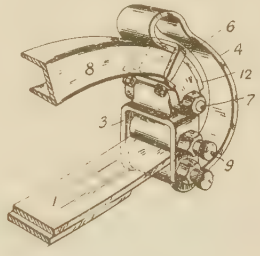
1,414,812. DRUM-TYPE CONTINUOUS-MILLING MACHINE. JOHN R. JOHNSON, Rockford, Ill., assignor to The Ingersoll Milling Machine Company, Rockford, Ill., a Corporation of Illinois. Filed Aug. 30, 1920. Serial No. 406,924. 25 Claims. (Cl. 90—20.)

1. In a milling machine, the combination of a bed plate, laterally spaced upright housings thereon, means for rigidly connecting the upper ends of the housings, a work table revolubly mounted between and upon the housings and constructed for carrying the work-pieces in circumferentially spaced relation, and a pair of spindle heads mounted on each housing, one equipped with a roughing and the other with a finishing surface milling cutter, the cutters being so arranged in opposed relation



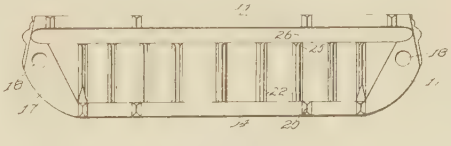
as to successively mill end surfaces of the work-pieces passed between the cutters by rotation of the table.

1,414,813. SPRING FOR MOTOR ROAD VEHICLES. FREDRICK WILLIAM JOHNSTONE, Murrumburrah, New South Wales, Australia. Filed June 29, 1921. Serial No. 481,175. 3 Claims. (Cl. 293—55.)



1. In bearing springs for motor road vehicles, a semi-elliptic laminated metal leaf spring carried at its ends by shackles pivotally secured to the vehicle frame and a bent metal leaf spring associated with one of said shackles adapted when secured at one portion to the front of the vehicle frame and at another portion to said latter shackle to act as a bumper guard to absorb shocks at the forward portion of the vehicle and also as a buffer to said semi-elliptic leaf spring.

1,414,814. RAILROAD APPLIANCE. JAKE JONES, St. Louis, Mo. Filed Feb. 25, 1921. Serial No. 447,694. 1 Claim. (Cl. 104—265.)



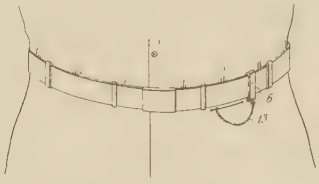
A railroad appliance comprising two castings, one to be placed on the outside of one rail and the other on the inside of the other rail, each casting consisting of a body member having a semi-circular periphery, the surface thereof tapered from a low wall to a high wall, a flange

formed on the peripheral surface of the high wall, transverse ribs located in the body connecting the low and high walls of the inside casting and extending from the low wall to the groove in the outside casting, both of said bodies to be used simultaneously in conjunction with replacing a de-railed truck on to the rails, substantially as specified.

1,414,815. MEDICINAL COMPOUND FOR EXTERNAL USE AS A PLASTER OR OINTMENT. ELIZABETH PARKER KELLEY, Philadelphia, Pa. Filed Feb. 25, 1919. Serial No. 279,169. 3 Claims. (Cl. 167—9.)

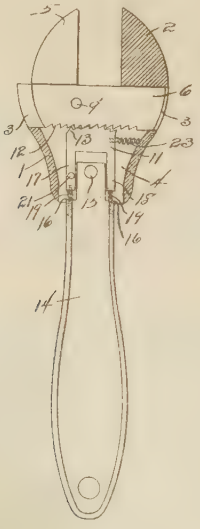
1. A medicinal plaster, ointment, or poultice for external use, embodying ichthyol, belladonna, and benzoinated lard.

1,414,816. BELT CLASP. JOHN F. KILLION, Attleboro, Mass., assignor to Whiting Chain Company, a Corporation of Massachusetts. Filed Feb. 7, 1922. Serial No. 534,660. 3 Claims. (Cl. 24—3.)



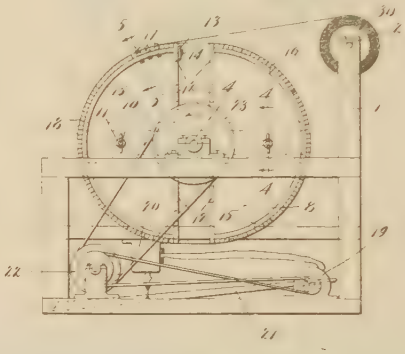
1. A belt clasp consisting of a strip bent upon itself to encircle a belt and made of resilient metal which normally assumes a position with the ends of the strips spaced apart to an open position permitting entrance of the belt within the strip, a catch mounted upon one end of the strip for movement thereon to latching and unlatching positions and a chain suspended from the strip, the catch being adapted, when in latching position, to engage the opposite end of the strip when the ends of the strips are brought together to hold said ends together against the spring tension of the strip and when in unlatching position to release the opposite end of the strip to permit the spring tension of the strip to separate the ends thereof.

1,414,817. WRENCH. OTEY R. KIRKPATRICK, Fort Worth, Tex., assignor of one-third to C. A. Puckett and one-third to C. M. Mitchell, Fort Worth, Tex. Filed Aug. 23, 1921. Serial No. 494,622. 3 Claims. (Cl. 81—126.)



1. A wrench having a body provided with transverse and longitudinal slots therethrough and a jaw integral therewith, a movable jaw having an integral shank at right angles thereto and movable in said transverse slot and ratchet teeth formed on said shank, a handle projected into said longitudinal slot and pivotally connected to said body, a spring actuated dog movable longitudinally on and with said handle and provided with teeth for engaging the teeth of said shank for locking said shank in fixed positions, and a stud rigid with said dog for moving said dog longitudinally on said handle.

1,414,818. MACHINE FOR INSPECTING AND CUTTING FABRICS. SAMUEL KISLEVITZ, New York, N. Y., assignor to Kaumagraph Company, New York, N. Y., a Corporation of New York. Filed Apr. 28, 1920. Serial No. 377,293. 7 Claims. (Cl. 242—110.)



3. In a machine for inspecting and cutting fabrics, the combination of an expansible winding drum, a peripheral series of adjustable bars mounted on said drum some of said bars being made circumferentially adjustable thereon, means for gripping one end of the fabric, means for temporarily holding the layers of fabric in position for the cutting operation, and driving mechanism for rotating the drum at different speeds, substantially as described.

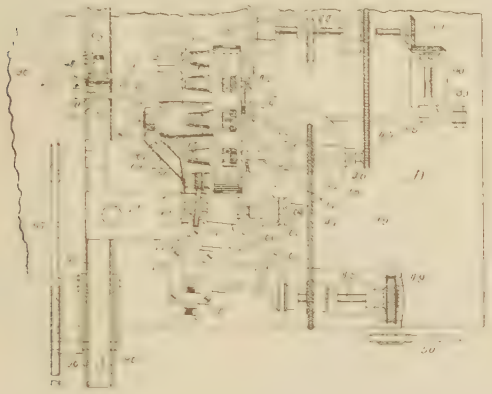
1,414,819. VALVE-REPAIR TOOL. HENRY PHILLIP KRAFT, Ridgewood, N. J. Original application filed Feb. 20, 1918, Serial No. 218,301. Divided and this application filed Mar. 11, 1920. Serial No. 364,994. 3 Claims. (Cl. 7—1.)

2. A tire valve repair tool comprising a rod portion and a screwdriver swiveled upon said rod portion, said screwdriver comprising a projecting screwdriver proper and an annular operating portion connected to and surrounding the screwdriver in spaced relationship, whereby the valve casing may be located between the screwdriver proper and the operating portion.

1,414,820. THIMBLE-DECORATING DEVICE. FRANK J. KRISTOFEK, St. Paul, Minn., assignor to Brown & Bigelow, St. Paul, Minn., a Corporation of Minnesota. Filed Dec. 8, 1919. Serial No. 343,238. 10 Claims. (Cl. 91—51.)

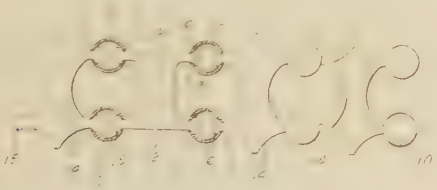
1. A device for enameling an article, means for applying the enamel evenly in a band to the surface of the article,

means for automatically grasping the article and removing it from the applying means said grasping means being adapted to automatically deposit the article on an endless carrier.



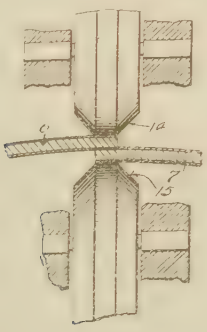
9. A decorating device having means for receiving a series of thimbles, means for automatically applying a decorating band to each thimble, means for automatically depositing each thimble after it is decorated, and means for baking the decoration on the thimbles.

1,414,821. BEAD CHAIN. CHARLES P. KUEHNER, North Providence, R. I. Filed Aug. 11, 1921. Serial No. 491,563. 4 Claims. (Cl. 59—80.)



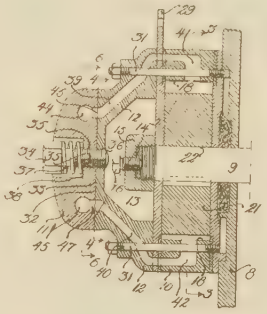
1. A bead fabric comprising in combination a plurality of spaced apart rows of hollow beads the beads in each row being spaced apart, and links having heads inclosed in said beads connecting together said rows and the beads in each row.

1,414,822. METHOD OF ELECTRICALLY WELDING GALVANIZED METAL SHEETS OR PARTS. JOSEPH LEDWINKA, Philadelphia, Pa., assignor to Edward G. Budd Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 28, 1919. Serial No. 273,576. 12 Claims. (Cl. 219—10.)



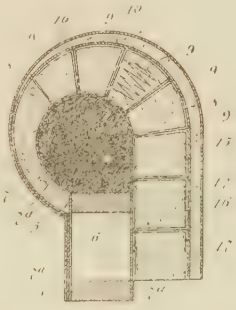
1. The method of electrically joining together galvanized sheets or parts, which consists in first exposing a portion of the body of the parts to be joined, through the galvanizing or other coating thereof, and then applying an electric current through the parts in the region of the exposed portions of the body.

1,414,823. COMBINED SPARK TIMER AND OIL PUMP. JOHN MCCLELLAND, Philadelphia, Pa. Filed July 7, 1920. Serial No. 394,457. 5 Claims. (Cl. 200—26.)



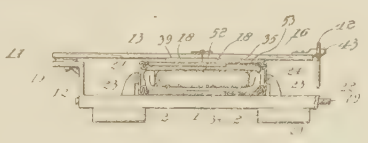
2. A device of the character described including a drum having inlet and outlet ports communicating with the interior thereof; contacting members spaced apart within said drum; means within said drum adapted to electrically contact and complete a circuit through said members and also operative to draw fluid through one of said ports into the drum and force said fluid out of the drum through the other of said ports; and means for moving said drum so that the drum will oscillate relatively to said means whereby electric contact with said members may be advanced or retarded; substantially as described.

1,414,824. UPHOLSTERED CURVED ARM, BACK, SEAT, ETC. CHARLES C. MEUTSCH, Chicago, Ill. Filed Oct. 17, 1918. Serial No. 258,534. 3 Claims. (Cl. 155—184.)



1. The herein described upholstered devices, comprising in combination a curved supporting structure, tapering coiled springs seated thereon at their smaller end and projecting outwardly therefrom, a fabric pocket for each of said springs the opposing adjacent sides of which are in parallel planes, and an enclosing cover therefor.

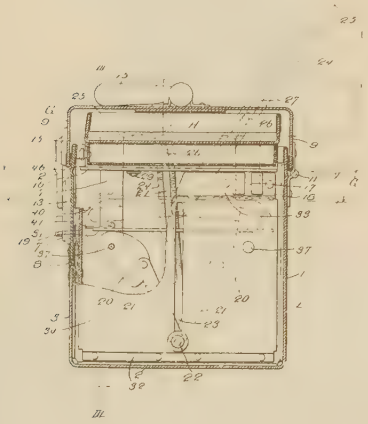
1,414,825. CUSHION-MAKING MACHINE. CHARLES C. MEUTSCH, Chicago, Ill. Filed Feb. 14, 1919. Serial No. 276,966. 11 Claims. (Cl. 226—44.)



1. A machine of the type described comprising a portable pan having transversely extensible top and bottom

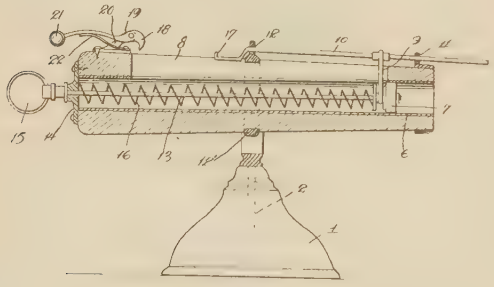
members, slidable sides and means for interlocking the same with said members, means for forcing said top member downwardly into interlocking position with said sides, and means for forcing said sides toward each other, whereby a padded frame contained within said pan will be compressed vertically and horizontally.

1,414,826. TOOL BOX. MAX MEYERSON, New York, N. Y. Filed Feb. 11, 1918. Serial No. 216,663. 13 Claims. (Cl. 190—30.)



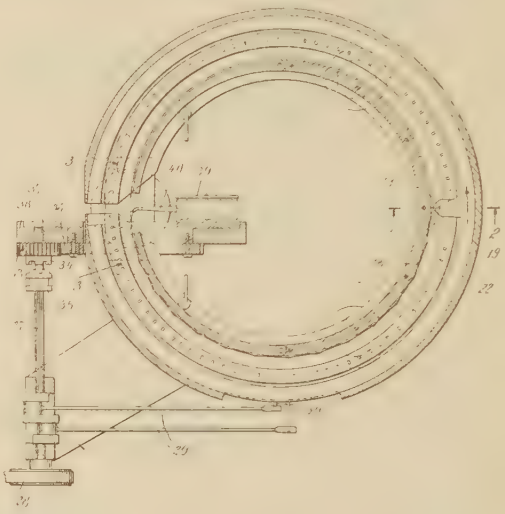
8. A tool box comprising a body portion, a displaceable cover therefor, a displaceable member within the box, a cam operable to displace said member, and connections between the cover and the cam whereby displacement of the cover will move the cam from one position to another to cause the cam to lift and support the weight of the displaceable member.

1,414,827. TOY CANNON. PETER PETERSON, Minneapolis, Minn. Filed Jan. 6, 1921. Serial No. 435,390. 2 Claims. (Cl. 124—12.)



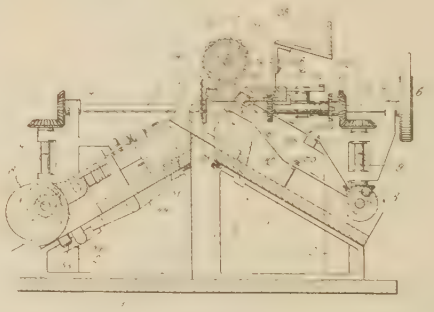
1. A toy cannon comprising a pivotally mounted barrel having a central bore, a sleeve lining within the bore, the said barrel also having a longitudinal slot communicating with the said bore, a plunger element having a guide arm attached thereto and extending upwardly through the slot, a guide rod above the said barrel and connected with the said guide arm, the said guide rod being mounted for longitudinal sliding movement, a plunger rod connected to the said plunger within the bore and extending longitudinally through the same, a collar at one end of the barrel having the said plunger rod slidably extended therethrough, a coil spring interposed between the plunger and the said collar to normally force the said plunger outwardly, a trigger member pivotally mounted in one end of the barrel and having a hook end adapted to engage one end of the said guide rod when the said spring is withdrawn whereby the spring may forcibly eject the plunger through the bore when the said guide rod is released by operation of the said trigger.

1,414,828. APPARATUS FOR MAKING GROMMETS. ALPHONSO COMSTOCK PRATT, Erie, Pa. Filed Feb. 14, 1920. Serial No. 358,790. 11 Claims. (Cl. 117—5.)



5. A machine for making grommets, comprising a circular frame to support the grommet and having a gap therein, a rotating shuttle carrying a wire reel adjacent said gap, a traveler on said frame to which the end of the wire is secured, means for advancing said traveler about said frame and across said gap and means for rotating said shuttle to lay the wire spirally upon a core which is formed therefrom during the first revolution of said traveler.

1,414,829. MACHINE FOR MAKING LINK MESH. ALPHONSO COMSTOCK PRATT, Deep River, Conn., assignor to Whiting & Davis Company, a Corporation of Massachusetts. Filed Dec. 27, 1920. Serial No. 433,184. 8 Claims. (Cl. 140—3.)

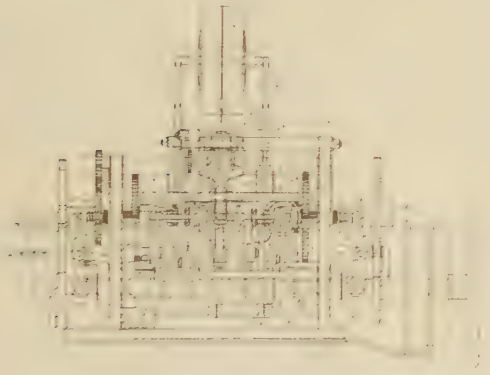


1. In a machine for making link mesh, the combination of a device for supporting a piece of link mesh fabric with its links in a plane, forming tools on one side of the fabric for forming links intermeshing with the links at the edge of the fabric, forming tools on the opposite side of the fabric for forming links intermeshing with those formed by the tools first mentioned, said forming tools cooperating to produce concurrently a plurality of consecutive rows of intermeshing links transversely of the fabric and means for shifting said supporting device and said forming tools relatively one to the other to present different portions of the fabric to the tools to receive links.

1,414,830. LABEL. THOMAS A. REILLY, Central Falls, R. I., assignor to J. & P. Coates (R. I.) Inc., a Corporation of Rhode Island. Filed Jan. 3, 1921. Serial No. 434,752. 1 Claim. (Cl. 40—2.)

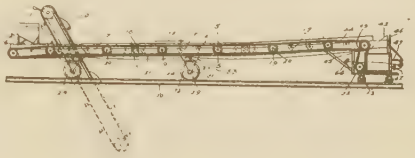
A closure member for the open ends of tubes comprising a paper body shaped to fit the tube end and provided with gummed peripheral tabs adapted to be bent up at an angle to the plane of its body to be attached to the side walls of a tube.

1,414,831. MACHINE OR APPARATUS FOR WRAPPING CAKES OR BLOCKS, SUCH AS CARAMELS, OR OTHER SWEETMEATS, AND THE LIKE. HENRY ROSE, deceased, Gainsborough, England, by William Henry Rose, administrator, Gainsborough, England. Filed Jan. 6, 1921. Serial No. 435,549. 5 Claims. (Cl. 93—5.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



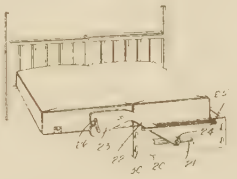
1. In a wrapping machine, the combination with an intermittently partially rotatable mould-wheel, means for feeding wrappers into proximity thereto, means for conveying the articles to be wrapped to a position in line with the recesses in the mould wheel, and means for forcing the articles and wrappers into the recesses in the mould-wheel whereby the wrappers are folded around three sides of the articles, of means for folding the two outstanding portions of the wrappers around the outer, or fourth, side of the articles, the said means comprising a stationary folder which causes one outstanding portion of the wrapper to be first partially bent over the outer, or fourth, side of the article, and a movable folder which folds the other outstanding portion of the said wrapper in a double fold under the aforesaid partially bent portion, the said stationary folder thereafter acting to press and retain both of the aforesaid portions onto the outer, or fourth, side of the article, rotatable and longitudinally movable grippers, for twisting the projecting open ends of the wrappers, for completing the wrapping, the said grippers operating to follow up the shortening of the ends due to the said twisting, means for removing the wrapped articles from the recesses in the mould-wheel, and means for operating the several parts at the proper relative times, all substantially as hereinbefore explained.

1,414,832. EXCAVATING MACHINE. DOMNICK A. ROSSI and FORREST REYNOLDS, Cleveland, Ohio. Filed Sept. 25, 1920. Serial No. 412,695. 4 Claims. (Cl. 37—24.)



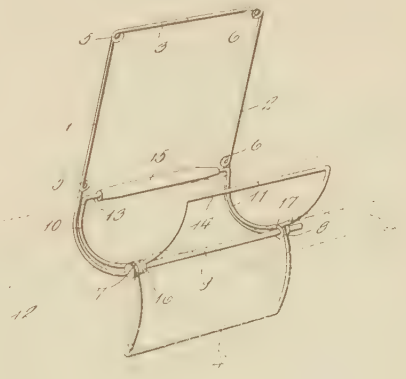
1. In combination with a digging machine; of a receiving hopper therefor, an endless conveyor, means connecting said conveyor to the machine for permitting a limited vertical and side movement of the machine without influencing the conveyor, and means operated by the machine for imparting motion to the conveyor.

1,414,833. FOLDING BED. LOUIS ROTHFELD, New York, N. Y. Filed June 2, 1921. Serial No. 474,451. 2 Claims. (Cl. 5—47.)



1. A convertible article of furniture including a member presenting a base, a seat, a back, said seat being normally affixed with respect to said base member, arms pivotally secured to said base member, said arms being formed with T shaped slots adjacent their outer ends and pins secured to said back and adapted to ride in said slot.

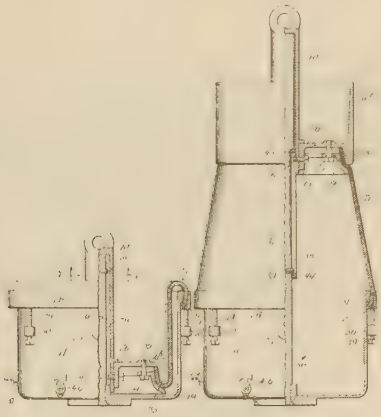
1,414,834. HOSE HOLDER. DRACOS SOUTER, Baton Rouge, La. Filed July 11, 1921. Serial No. 483,843. 2 Claims. (Cl. 248—20.)



2. An improved hose holder comprising a bracket made of a single length of wire bent into substantially rectangular shape with loops made therein to receive fastening means for connecting the bracket to a support, the lower portion of the bracket being curved away from the support and provided with convolutions, a pivot pin held in said convolutions, and a hose holder made also of a single length of wire bent into substantially rectangular

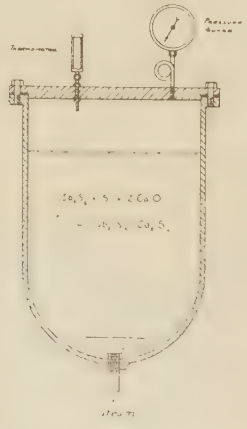
shape and curved to conform with the hose, said holder having convolutions made at substantially central part to rotatably fit about said pivot pin, said holder being also weighted to an upright position, substantially as described.

1,414,835. VEHICLE DUMPING AND JACKING MEANS. GREGORY J. SPOHRER, East Orange, N. J. Filed Aug. 24, 1920. Serial No. 405,622. 25 Claims. (Cl. 138—9.)



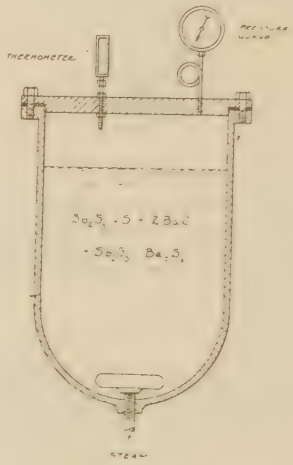
1. A fluid operated extensible and collapsible unit including a cylinder, a head adapted to be actuated by the fluid pressure in the cylinder to move into and out of the same, and flexible fluid-tight connecting means between said cylinder and said head and subject to the fluid pressure to unfold into extended form beyond the cylinder, or to collapse into the cylinder, with the movements of said head.

1,414,836. METHOD OF MAKING PRECIPITATED ANTIMONY SULPHIDE. ARTHUR L. STARK, Elyria, Ohio, assignor to The Stibium Products Company, Elyria, Ohio, a Corporation of Ohio. Filed Nov. 12, 1919. Serial No. 337,408. 6 Claims. (Cl. 34—58.)



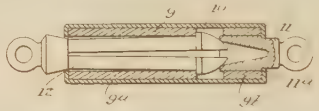
6. In a method of making precipitated antimony sulphide, the steps which consist in mixing finely ground stibnite, sulphur and quick-lime with sufficient water to form a paste, adding the resulting mixture to a body of water, heating under pressure at an elevated temperature, whereby a water-soluble double sulphide of antimony and calcium is obtained, and then adding a suitable acid, whereby antimony pentasulphide is precipitated.

1,414,837. METHOD OF MAKING PRECIPITATED ANTIMONY SULPHIDE. ARTHUR L. STARK, Elyria, Ohio, assignor to The Stibium Products Company, Elyria, Ohio, a Corporation of Ohio. Filed June 1, 1920. Serial No. 385,641. 8 Claims. (Cl. 134—58.)



4. In a method of making precipitated antimony sulphide, the steps which consist in mixing finely ground stibnite, sulphur and a compound capable of forming a water-soluble double salt with antimony together with sufficient water to form a paste, adding the resulting mixture to a body of water in an autoclave, and then injecting steam into such autoclave so as to agitate and heat the mixture and water to a temperature of approximately 145° to 155° C. under a pressure of approximately sixty to eighty pounds, whereby a water-soluble double-sulphide is obtained.

1,414,838. SNAP CATCH. FRED STREET, Philadelphia, Pa. Filed Jan. 7, 1920. Serial No. 349,918. 9 Claims. (Cl. 24—230.)



1. A snap catch comprising a casing, an anchor member adapted to be inserted in the casing and having a shoulder extending laterally from the side thereof, means in the casing adapted to be engaged by the shoulder to retain the member in the casing, resilient means associated with the anchor member for maintaining engagement between the shoulder and said retaining means, and means carried by the casing for disengaging the shoulder to permit withdrawal of the anchor member from the casing.

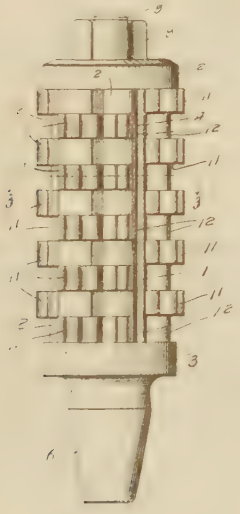
1,414,839. WRENCH. ARTHUR STUARTS, Pleasantville, N. Y. Filed Sept. 26, 1919. Serial No. 326,506. 1 Claim. (Cl. 81—171.)

A wrench having a shank with a handle on one end and a fixed jaw on its other end, a movable jaw arranged on said shank, and an adjusting screw operable to move said movable jaw, and in combination, a nut having recesses therein in the same plane secured to said screw, a locking pin having a portion engageable in any of the recesses in said nut, a shoulder on said pin, a bore in said shank, an apertured wall at one end of said bore,

the said pin extending through and being movable therein, a spring interposed between said shoulder and said wall,

a head on said pin, a recess in said shank, and a projection on said head engageable in the recess in the shank.

1,414,840. FLUE CLEANER. ALBERT W. TERRELL, Newport News, Va. Filed Nov. 18, 1921. Serial No. 516,101. 3 Claims. (Cl. 15—104.15.)



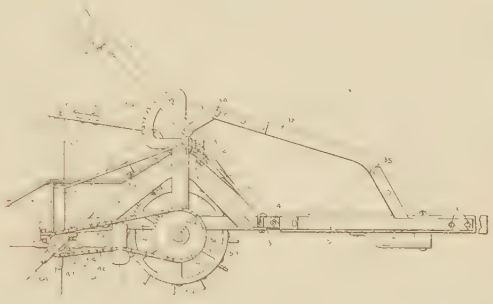
2. A flue cleaner comprising an elongated body, pins grouped about the sides of the body, and a plurality of cutting elements pivotally mounted upon each of the pins in spaced relation, each of the cutting elements comprising a segment portion toothed at its outer edge and a laterally extending hub, the hubs of the cutting elements mounted on each of the pins facing in the same direction and the hubs of intermediate and alternate rows of cutting elements facing in opposite directions whereby to give the cutting elements a staggered arrangement.

1,414,841. HINGE JOINT FOR FACEPLATE DOORS AND THE LIKE. GEORGE B. THOMAS, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Dec. 27, 1921. Serial No. 524,971. 3 Claims. (Cl. 16—128.)

2. A hinge joint of the type described, comprising a plate having a door opening with lateral recesses extended from opposite sides thereof, a door for said opening having studs adapted to enter said recesses, and

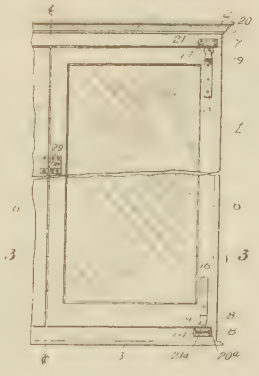
straps apertured to receive said studs and having their ends angled over opposite faces of the plate to secure said parts together.

1,414,842. PACKER AND CIRCULAR HARROW. OTTO VOELKER, Palmer, Kans. Filed Nov. 26, 1920. Serial No. 426,509. 7 Claims. (Cl. 55—85.)



1. An agricultural implement comprising a main frame, a packer mechanism rotatably mounted in said main frame, an upstanding frame member mounted on said frame, a guard plate mounted on said upstanding frame member, a harrow mechanism mounted in said main frame rearwardly of said packer mechanism, a draft tongue connected with said main frame, and adjusting mechanism mounted on said main frame and connected with said draft tongue.

1,414,843. DOOR STRUCTURE FOR DISPLAY CABINETS. JOHN VOSS, Evansville, Ind. Filed Mar. 4, 1920, Serial No. 363,218. Renewed Dec. 14, 1921. Serial No. 522,443. 9 Claims. (Cl. 20—16.)

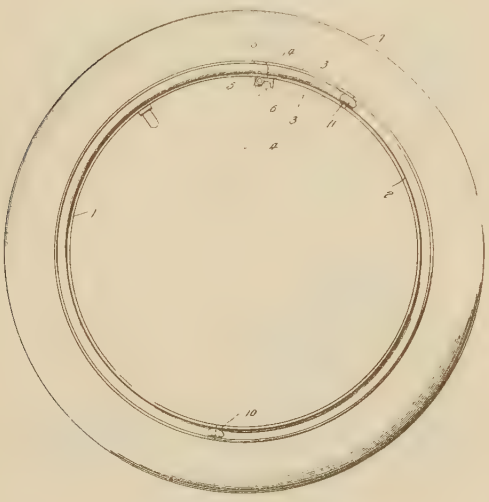


1. In a door structure for display cabinets or the like, the combination with a door or closure for the cabinet, of upper and lower hinge members in the form of balls and mounted on the door, and tracks for the balls extending into the cabinet toward the rear thereof, the balls each provided with a pivotal axis diametrically of the ball.

1,414,844. DEMOUNTABLE RIM. CHARLES A. VRATIL, Pawnee Rock, Kans. Filed Apr. 12, 1921. Serial No. 460,744. 2 Claims. (Cl. 301—33.)

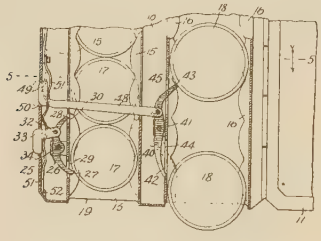
1. A sectional demountable rim, contiguous ends of adjacent sections having terminal projections to overlap

the joint to insure alinement and prevent displacement of the sections, and an operating lever mounted on an end of one of the sections and having a projection adja-



cent its pivotal end to extend between the joint of said section and the adjacent section to positively break the joint inwardly and to engage the end of the swinging section and move the same outwardly.

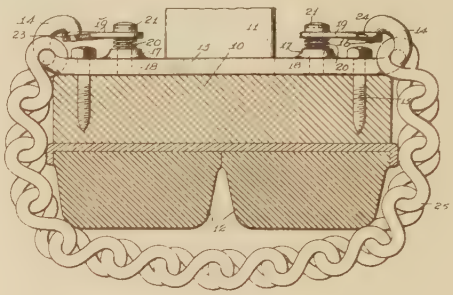
1,414,845. COIN HOLDER. RALPH WALLENSTEIN, Providence, R. I. Filed Apr. 26, 1921. Serial No. 464,646. 2 Claims. (Cl. 133—5.)



2. A coin holder comprising a casing having provided at its lower end a plurality of unobstructed coin discharge openings, guideways in alinement with said coin discharge openings, retaining and releasing levers fulcrumed in the casing and associated with the guideways to control the discharge of the coins from the casing, links pivotally connected to said levers and projecting beyond the casing to serve as an operating means for the levers, and a continuous spring so suspended from the casing and cooperating with the links as to hold the levers in their coin retaining positions and allowing operation of each lever independently.

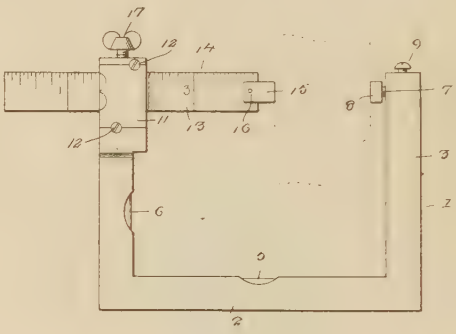
1,414,846. ANTISKID CHAIN ANCHOR. CONRAD S. WEIMAR, Elizabeth, N. J. Filed Feb. 23, 1921. Serial No. 447,043. 2 Claims. (Cl. 152—2.)

1. An anti-skid chain anchor, including a plate adapted to be attached to a wheel felly, a hook integral with one end of the plate providing a point of attachment for an end link of an anti-skid chain, a pivoted spring held



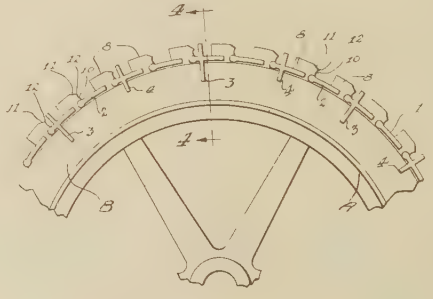
arm associated with the plate and having a perforation in its free end, and a reduced extremity at the nose of the hook engageable in the perforation.

1,414,847. TOOL. ELBIE WELLS, Hamilton, Ohio. Filed Nov. 16, 1920. Serial No. 424,392. 1 Claim. (Cl. 33—143.)



A tool comprising a straight base having a level bulb embedded therein below the inner surface thereof, right angular straight arms extending from the ends of the base in the same direction, a block removably secured to the inner face at the outer end of one of the arms, the second arm being of a greater length than the first mentioned arm and having the outer portion thereof thickened, a scale blade slidable through the said thickened portion having a head on the inner end thereof arranged opposite the first mentioned head, means for adjustably binding the scale in the thickened portion of the said arm, and a level bulb below the inner edge of one of the arms.

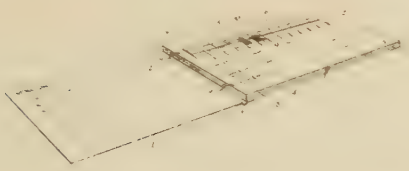
1,414,848. TIRE CHAIN. MICHAEL WENZOWITZ, Chicago, Ill. Filed Oct. 17, 1921. Serial No. 508,116. 5 Claims. (Cl. 152—16.)



1. In an antiskid chain, a plurality of connecting links, a plurality of armored links having lugs formed

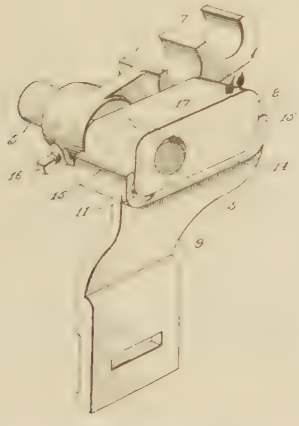
thereon and extending transversely to the links, said links having their outer edges concavely curved and beveled providing sharp edges intermediate the outer and inner edges of the lugs.

1,414,849. EDUCATIONAL GAME. JOHN R. WILLIAMS, Walnutport, Pa. Filed May 23, 1921. Serial No. 471,628. 8 Claims. (Cl. 35—2.)



1. An educational device, comprising a group of leaves having matching slots, a back and a cover, with the back formed with an elongated recess, a row of unit members normally held end to end in the recess and projecting through matching slots in the several leaves to be accessible to the user irrespective of whether or not all the leaves be closed at one time, and each leaf having located on the margin of the slot an imprint for aiding the pupil in properly placing the blocks in the proper order in the slot.

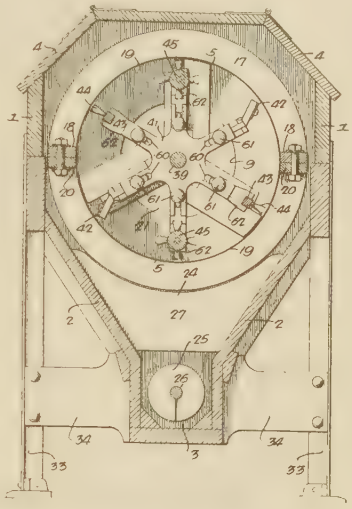
1,414,850. WHIP ROLL FOR LOOMS. WILLIAM B. WILLIAMS, Greenville, S. C. Filed Feb. 9, 1921. Serial No. 443,555. 4 Claims. (Cl. 64—24.)



1. In a whip-roll structure for looms, a rock-shaft carrying the whip-roll-arms, a stationary journal-bracket adapted for attachment to the frame of the loom, and an oil-impregnated wood journal-block mounted on the same having a bearing for said rock-shaft.

1,414,851. BOLTING MACHINE. AUGUSTUS WOLF, Chambersburg, Pa. Filed May 22, 1920. Serial No. 383,452. 8 Claims. (Cl. 83—51.)

1. The combination in a bolting machine of a rotary reel; a cleaning member within the same including a shaft extending eccentrically through the ends of the reel; and means for adjustably supporting said cleaning member in position to cause it to operate mainly upon

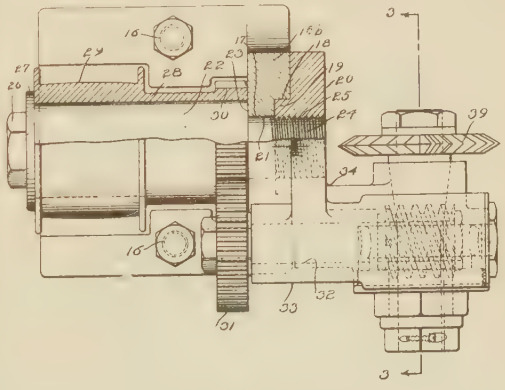


the upper inside portions of said reel while also permitting it to operat upon the remainder thereof.

1,414,852. METHOD OF PRODUCING CHEMICAL COMPOUNDS FROM ACETYLENE AND HYDROHALOGENIC ACIDS. WALTER BAUER, Darmstadt, Germany, assignor to The Firm Röhm & Haas Aktiengesellschaft, Darmstadt (Free State of Hessia), Germany. Filed Sept. 1, 1921. Serial No. 497,671. 3 Claims. (Cl. 260—166.)

1. A method of producing hydrohalogenic acid addition products of acetylene consisting in exposing a mixture of acetylene and a hydrohalogenic acid to the action of light.

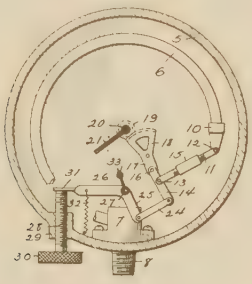
1,414,853. THREAD-MILLING ATTACHMENT FOR LATHES. JOHN R. BECKETT, Somerville, Mass. Filed Oct. 14, 1918. Serial No. 257,967. 6 Claims. (Cl. 10—154.)



1. A milling attachment for lathes, bodily attachable to and detachable from the lathe carriage as a separate unit, comprising a base having journaled therein a driving member bearing a spur pinion and having provision for clamping to the tool post block of a lathe, a tool holding bracket mounted for angular adjustment about an axis concentric with said driving member, a shaft journaled in said bracket having fixed therein a gear

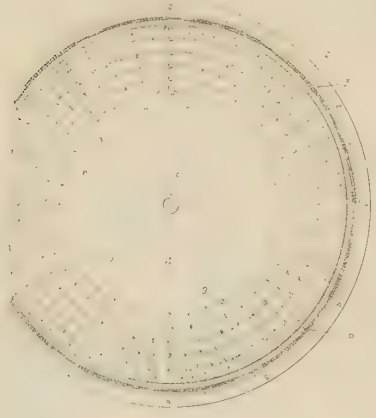
meshing with said pinion throughout the range of angular adjustment of said bracket, a worm also fixed on said shaft, and a milling cutter mounted on said bracket having rigid therewith a worm wheel meshing with said worm, said milling cutter mounted so that the axis of adjustment of said bracket extends diametrically and transversely central thereof.

1,414,854. ABSOLUTE-PRESSURE GAUGE. CHARLES HAROLD BERRY, Detroit, Mich. Original application filed May 12, 1920, Serial No. 380,879. Divided and this application filed Dec. 10, 1920. Serial No. 429,734. 5 Claims. (Cl. 73—109.)



1. A gauge comprising a dial, a pressure actuated element, a pointer operable over the dial, connections between the pressure actuated element and the pointer for moving the pointer in accordance with the movements of said pressure actuated element and manually operable settable means for modifying the action of the first named connections upon the pointer to compensate for variations in atmospheric pressure.

1,414,855. TIME METER. RALPH E. BISHOP, Indianapolis, Ind. Filed Mar. 18, 1921. Serial No. 453,196. 1 Claim. (Cl. 235—78.)

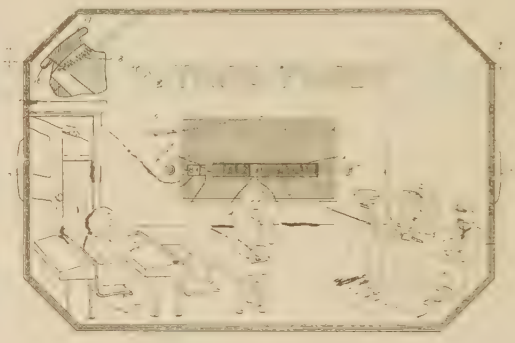


Means for determining the time required for running a designated number of picture film of a prescribed length, comprising a member having hour and minute graduations thereon, a rotatable member for cooperation with the first member having a plurality of circumferential and radial divisional graduations thereon, said circumferential and radial graduations having designating numerals for co-operation with the hour and minute graduations for successively determining the time required for running a prescribed number of films.

1,414,856. DECALCOMANIA AND DRYING MACHINE FOR POTTERY. HERMANN BOGATY, Philadelphia, and JOSEPH L. BUCKLEY, Pittsburgh, Pa., assignors to Proctor & Schwartz, Incorporated, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 18, 1921. Serial No. 485,715. 3 Claims. (Cl. 41—1.)

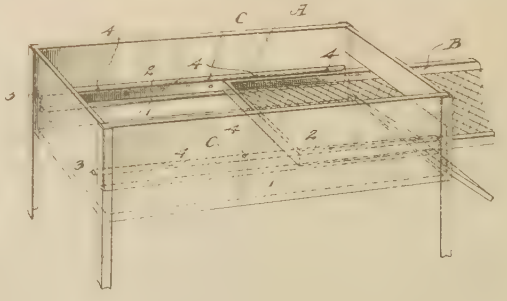
1. The combination in apparatus for applying decalcomanias to pottery, of a frame; an endless belt conveyer; a series of trays on the conveyer to carry the pottery; and two drying chambers spaced apart, one chamber being arranged to dry the adhesive which is first applied to the pottery, the other chamber being arranged to dry the decalcomanias after they have been secured to the pottery by the adhesive.

1,414,857. EDUCATIONAL TOY. JACOB M. BRANDVEIN, New York, N. Y. Filed Apr. 29, 1921. Serial No. 465,476. 4 Claims. (Cl. 35—2.)



1. A toy of the character described, including a casing, having a pair of openings therein, discs mounted to rotate in the casing and having numerals and arithmetical signs thereon adapted to register with the openings upon rotation of the discs, means whereby rotation of the discs to expose the problem in one opening automatically moves the numeral representing the answer to the problem into registration with the other opening, and a spring held shutter normally concealing said answer.

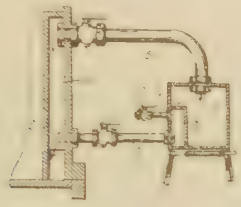
1,414,858. INCUBATOR. LUCIUS A. BROWN, Clay Center, Nebr., assignor to The M. M. Johnson Company, Clay Center, Nebr., a Corporation of Nebraska. Filed Aug. 9, 1921. Serial No. 490,993. 14 Claims. (Cl. 119—35.)



1. In an incubator, the combination with a housing, of a tray supporting member constituting a unitary at-

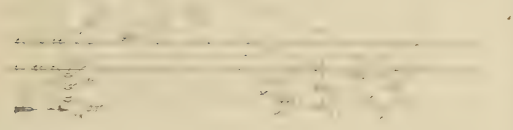
tachment applicable to the wall of the housing, said supporting member having means for conveying air into the egg compartment of said incubator.

1,414,859. APPARATUS FOR THE PRESERVATION OF MEAT AND OTHER ALIMENTARY SUBSTANCES. LOUIS FREDERICK BULLÔT, Sydney, New South Wales, Australia. Filed May 14, 1920. Serial No. 381,367. 3 Claims. (Cl. 99—2.)



3. In an apparatus for the preservation of meat and other alimentary substances, the combination of a treatment chamber having a V-shaped passage therein communicating with the bottom thereof, combustion chambers disposed exteriorly of the treatment chamber, and pipes connecting the upper and lower portions of the combustion chambers with the treatment chamber for respectively admitting fumes into the treatment chamber and discharging air from the latter chamber into the combustion chambers, the fume pipes discharging into the V-shaped passage of the treatment chamber.

1,414,860. TRAIN CONTROL. ISRAEL BUTLER, Buffalo, N. Y., assignor of one-half to James I. Brunson and Griffin A. Saunders. Filed Feb. 14, 1921, Serial No. 444,808. Renewed Mar. 8, 1922. Serial No. 542,167. 5 Claims. (Cl. 246—184.)



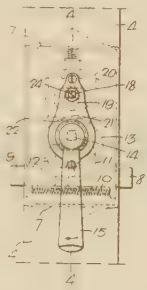
1. The combination with a railway electric block signal system, of a motor for cutting off the power of the train, a motor for applying the brakes, a motor for releasing the brakes, means controlled by the signal for successively operating the motors and means whereby the brake applying motor will be again operated to stop the train after the operation of the brake releasing motor.

1,414,861. CONTAINER. HERBERT L. CARPENTER, Brooklyn, N. Y. Filed Apr. 8, 1921. Serial No. 459,616. 23 Claims. (Cl. 217—91.)

1. A container comprising a hollow body portion, a head portion for an end of said body portion, said head portion being inserted into the end of the body portion, a flange portion extending outwardly from the upper end of said head portion and adapted to engage and seal the edge of the body portion, a flanged rim engaging the top of

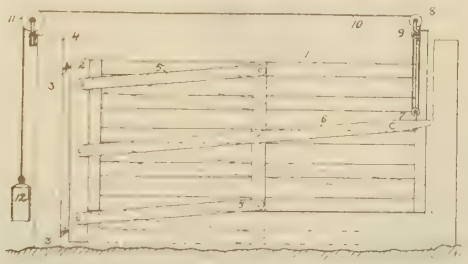
the head and the side of the body portion, and means engaging with the rim, body, and head portion to fasten the rim, the body and the head portion together.

1,414,862. DOOR LOCK. SAMUEL SALVATORE COLAVITA, Philadelphia, Pa. Filed May 11, 1921. Serial No. 468,597. 4 Claims. (Cl. 70—29.)



2. The combination of two doors; a parting strip between the two doors; a lock casing mounted in the parting strip; a spindle having a rocker; two sliding bolts independently mounted in the casing and arranged to be withdrawn by the rocker; a spring for projecting the bolts; a handle on each end of the spindle; a locking mechanism engaging the bolt-operating mechanism when projected; and means for actuating the locking mechanism consisting of a spindle having a knob at one end and a key engaging means at the opposite end.

1,414,863. FARM GATE. AARON H. CRISSEY, Lansing, Mich. Filed Jan. 20, 1921. Serial No. 438,720. 1 Claim. (Cl. 39—81.)

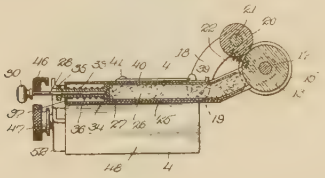


In a farm gate, a gate post, a swinging post having hinged connection with the gate post; a gate proper; a pair of parallel bars each of which has pivotal connection at one end with the swinging post, and at the opposite end with the gate at a point in line with the vertical center thereof; a lever having pivotal connection with the swinging post at one end, and at its middle with the gate at a point in line with the vertical center thereof; and a tackle rig in connection with the gate and lever for counterbalancing the gate.

1,414,864. FUSE PLUG. HENRY N. DAVIS, Independence, Mo. Filed July 8, 1920. Serial No. 394,687. 4 Claims. (Cl. 200—130.)

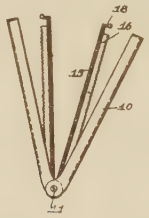
1. As a new article of manufacture, a fuse plug consisting of two members, one of said members comprising a solid body portion of insulating material having a passageway therein, the other of said members comprising a fuse extending from end to end of the passageway.

1,414,865. RIBBON-INKING ATTACHMENT FOR TYPEWRITERS. HECTOR E. DELBARE, Chicago, Ill. Filed Mar. 30, 1921. Serial No. 457,107. 3 Claims. (Cl. 197—171.)



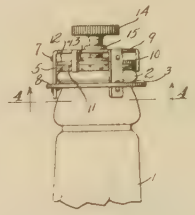
1. An automatic ribbon inking attachment for typewriters comprising an ink distributing roller; a spring-pressed pressure roller for yieldingly holding the ribbon in contact with the distributing roller to rotate the latter as the ribbon is intermittently moved; an axially movable tube containing an ink absorbing element yieldingly held in contact with the distributing roller and a spring to hold said element in contact with said distributing roller for distributing ink on the ribbon.

1,414,866. HAND BAG. JOSEPH OTTO DOERSCHING, West Hoboken, N. J. Filed Sept. 11, 1920. Serial No. 409,567. 1 Claim. (Cl. 150—29.)



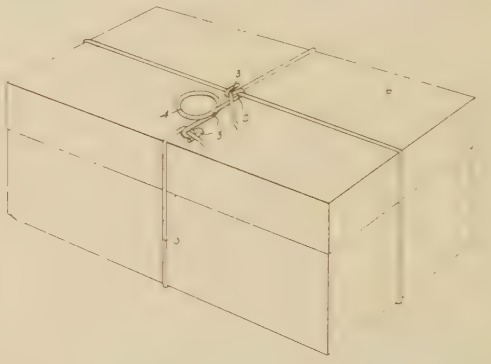
A receptacle including a main and a supplemental body, a flange extending at a right angle from said main body, a serrated flange extending also at a right angle from said supplemental body, whereby when both of said flanges and the inner faces of said main and supplemental bodies are combined, these parts will present a substantially closed groove, a bag, a bead forming a part of said bag and adapted to extend into said groove, and means adapted to hold these parts together when in their normal position, said means comprising a plurality of grooved portions indented on the main flange of said supplemental body, a plurality of slots aligned with said grooves of said supplemental body, and located on the flange of said main body, and a plurality of catches riveted in each of said grooves, each having a tongue portion adapted to snap into said slots thereby holding the two bodies locked.

1,414,867. BOTTLE CLOSURE. JOHN W. DUDLEY, Brooklyn, N. Y. Filed Oct. 25, 1921. Serial No. 510,238. 1 Claim. (Cl. 215—88.)



A closure for bottles, comprising a clamping plate having a rough central portion, a packing member carried by said clamping plate on one surface thereof, an outer plate having a threaded aperture, a screw threaded into said threaded aperture and bearing against said raised portion for pressing the clamping plate and packing downwardly, said outer plate being provided with a plurality of long fingers and a plurality of short fingers spaced between the longer fingers, said short fingers acting to center said clamping plate, said long fingers having an outwardly pressed projection for each end and an inwardly extending projection near the outer end adapted to interlock with a bottle, and a ring surrounding said long fingers and movable parallel to the axis of the clamping screw for causing the inwardly extending projection on said long fingers to interlock with the bottle when the ring is in one position and to permit said projection to move away from the bottle when the ring is in another position.

1,414,868. PACKAGE TIE. WILLIAM HECTOR DUVARNEY, Derry, N. H. Filed Apr. 13, 1921. Serial No. 460,890. 1 Claim. (Cl. 24—18.)

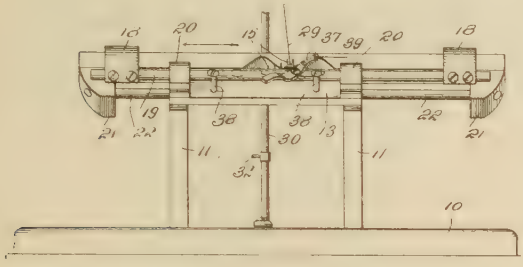


A package tie consisting of a single length of wire coiled intermediate its ends and having its extremities bent into compound curvature providing a pair of angular or V-shaped recesses at both ends for the reception of a flexible connecting device, said extremities being located at opposite sides of the wire but in the same plane and at right angles to the plane of the coiled intermediate portion.

1,414,869. TOY KNITTING MACHINE. LUIS GEORGE EGGER, New York, N. Y. Filed Apr. 30, 1920. Serial No. 377,877. 1 Claim. (Cl. 66—28.)

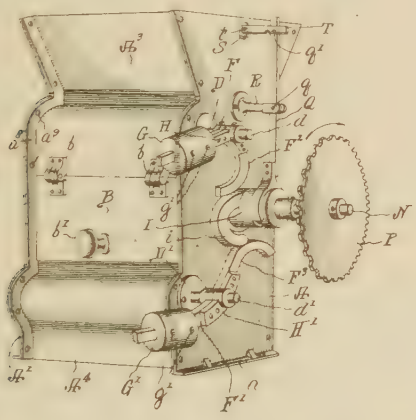
A knitting machine comprising a base, standards rising therefrom and formed with openings, a needle bed supported on the standards and having transverse parallel grooves, needles sliding in the grooves and each including a pivoted latch, a cam bar slidable across said bed and formed with a cam projection engageable with the needles whereby to open the latches thereof in successive order, a rod terminally connected with said bar and slidable

through the openings in said standards, a member connecting the standards and formed with spaced apertured



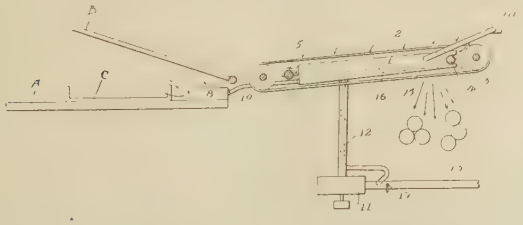
lugs, a second rod connected with said bar and slidable through said lugs, and a thread holder mounted on said base.

1,414,870. HOPPER FOR USE IN FEEDING FINELY-DIVIDED FUEL. JAMES FISHER, New Orleans, La. Filed Apr. 14, 1921. Serial No. 461,357. 6 Claims. (Cl. 221—112.)



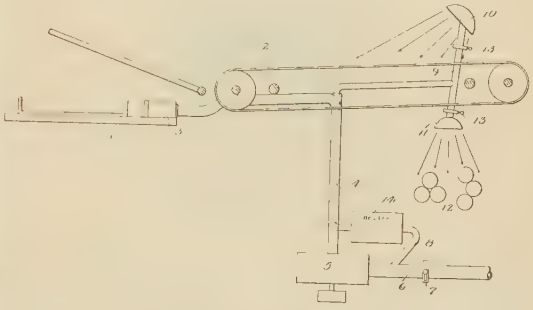
1. A hopper for use in feeding finely divided fuel to furnaces, comprising a casing open at the top and bottom, a pair of doors hinged transversely of said casing and mounted one above the other but spaced apart, seats for said doors provided on the interior of said casing above said doors, respectively, said seats holding said doors in a position slightly inclined from the horizontal, counterweights normally holding said doors in the closed position against said seats, and a cam arrangement, with means for operating same, for alternately tripping said doors against the action of said counterweight.

1,414,871. ATTACHMENT FOR PRINTING PRESSES. JACOB FRANKLIN FREDERICK, Chicago, Ill. Filed Apr. 3, 1920. Serial No. 371,073. 8 Claims. (Cl. 101—335.)



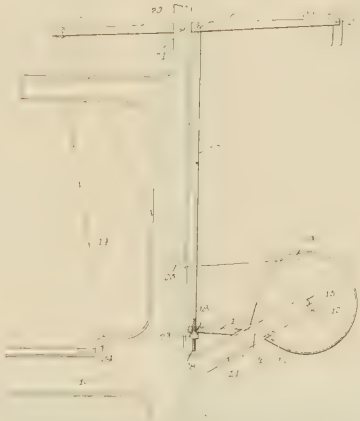
1. In combination with a printing press embodying a jogger board and a plurality of traveling tapes, of a casing shaped and constructed to be arranged between the moving tapes and provided with a plurality of air intake holes, means tending to create a vacuum in the casing, and a plurality of nozzles arranged around the jogger board and communicating with said casing.

1,414,872. ATTACHMENT FOR PRINTING PRESSES. JACOB FRANKLIN FREDERICK, Chicago, Ill. Filed Aug. 13, 1920. Serial No. 403,259. 11 Claims. (Cl. 101—416.)



1. An attachment for printing press embodying a jogger-board and ink rolls comprising a suction fan for directing air from the jogger board, an upper nozzle for discharging air currents upon the traveling sheets, a lower nozzle for discharging air upon the ink rolls, and a conduit receiving air from said fan.

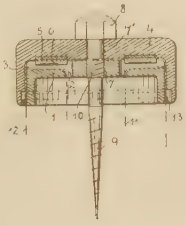
1,414,873. LET-OFF MECHANISM FOR LOOMS. RUDOLPH GLASER, Haledon, N. J. Filed Sept. 3, 1920. Serial No. 407,879. 3 Claims. (Cl. 139—58.)



3. In an automatic let-off mechanism for looms, the combination with the warp beam, of a weight arm pivoted at one extremity to the warp beam support and provided with an aperture in its opposite extremity, a friction brake band encircling the warp beam and having connection at its opposite ends with the support and the weight arm adjacent its pivot whereby the weight of the arm when free to move will serve to effect contraction of the brake band about the beam to retard the rotation thereof, a rock lever pivoted to the loom frame and having a thread guide at one extremity over which the threads leading from the beam are trained, a weight supported by the opposite extremity of the rock lever, a lift rod connected to the weight arm of the rock lever adjacent its pivot, the lower end of said lift rod adapted to be freely received through the aperture in the weight arm,

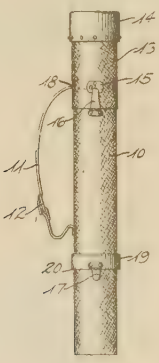
and an adjustable stop carried by the lower end thereof and adapted to coact with the free extremity of the weight arm when excessive tension of the warp threads actuate the rock lever whereby the weight arm is rendered inactive.

1,414,874. JUNCTION BOX FOR ELECTRIC SUPPLY MAINS. ALEXANDER GRAF, Berlin-Hermsdorf, Germany. Filed Nov. 28, 1919. Serial No. 341,226. 2 Claims. (Cl. 173—324.)



1. A junction box for electric supply mains and branch wires comprising a base with holes passing from the bottom to the top and grooves joining on the holes at the top, the holes and grooves being adapted to receive the mains and wires, a ring of insulating material fitting round the lower edge of the said base and adapted to hold the mains and wires in the said grooves, a cap with metal strips having ribs fitting into the said grooves, and means for holding the cap and base together.

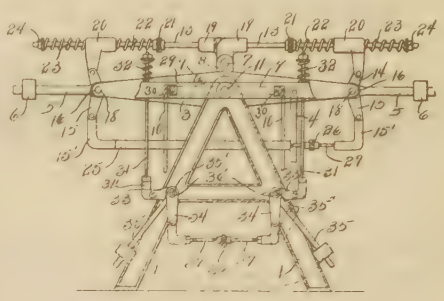
1,414,875. GOLF BAG. ROY F. HANAFORD, Brooklyn, N. Y. Filed July 25, 1917. Serial No. 182,607. 5 Claims. (Cl. 150—1.5.)



1. In combination, a golf bag, a cover member engageable over the open end of the bag as a cover therefor and engageable over the bottom of the bag as a reinforcement and protector for the same, means for securing said cover member on the bag in either of said positions, said cover member having a keeper passage through one of its side walls, and a handle on the bag adapted to be passed through said keeper passage in one position of the cover member on the bag.

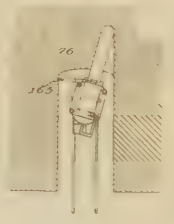
1,414,876. POWER JACK. FRED. D. HOFFMAN, Fort Worth, Tex., assignor to P. E. Miller, Fort Worth, Tex. Filed Nov. 26, 1921. Serial No. 517,893. 8 Claims. (Cl. 74—14.)

1. A power jack comprising a frame and pivot shaft therein, an oscillating walking beam mounted on said shaft and provided with pendulums, one at each end, pivotally connected thereto at equally distant points from said pivot shaft, bell crank levers laterally and adjustably connected to said pendulums, a Y-lever rigid with said



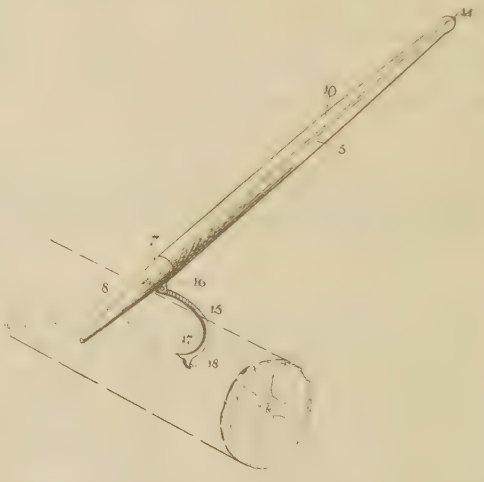
pivot shaft for operating said shaft, yieldable means connecting said Y-lever to said levers, and means for actuating said oscillating walking beam.

1,414,877. MINING APPARATUS. EDWARD L. HOPKINS, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Filed Oct. 11, 1912, Serial No. 725,276. Renewed July 30, 1920. Serial No. 400,213. 109 Claims. (Cl. 262—30.)



74. The combination of a wheeled truck, a cutting mechanism on the truck arranged to operate while thereon and being vertically adjustable from one kerf cutting position to another, truck driving devices, devices for vertically adjusting the cutting mechanism, a motor operatively connected to the last said adjusting devices, and means adapted to operatively connect the motor to the truck driving devices when the motor is in a predetermined position.

1,414,878. PEAVY. DAVID R. HOWE, Ashland, Me. Filed June 3, 1921. Serial No. 474,643. 3 Claims. (Cl. 294—17.)



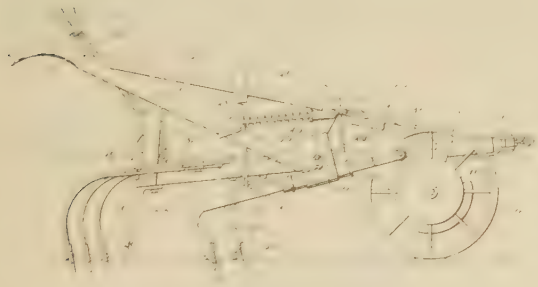
1. A peavy comprising a handle, a head of cone-shaped formation having its rear portion formed with a socket

receiving the forward portion of the handle, a reinforcing rod extending longitudinally through said handle and threaded into said head, and a hook pivotally connected to said head.

1,414,879. TOOL FOR HANDLING DEMOUNTABLE RIMS. ROBERT D. HUGHES, Lynchburg, Va. Filed Feb. 28, 1920. Serial No. 361,925. 3 Claims. (Cl. 157—1.)

1. A rim handling tool comprising an elongated housing having rim-engaging means at one end, an elongated bar projecting from the other end of the housing and adapted to slide therein, said bar having rim-engaging means at its outer end and rack teeth along its upper edge, and an actuating lever pivotally mounted on the housing means and having a toothed head engaging with the teeth of the bar, whereby when the lever is rocked, the housing and bar are reciprocated to move their rim-engaging means nearer to or farther away from each other.

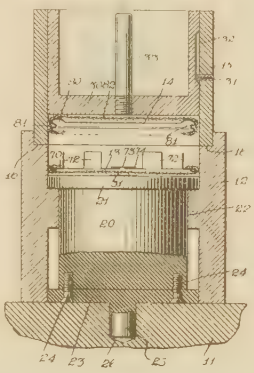
1,414,880. CULTIVATOR. THOMAS M. HUGHES, Carlisle, Miss. Filed Aug. 25, 1920. Serial No. 405,795. 10 Claims. (Cl. 92—45.)



1. A cultivator embodying a wheel supported machine, a hoe located upon opposite sides of the longitudinal center of the machine, automatically operated means for raising and lowering the hoes longitudinally of the machine at spaced intervals during the travel of the machine and means for moving the hoes laterally during their raising and lowering operation.

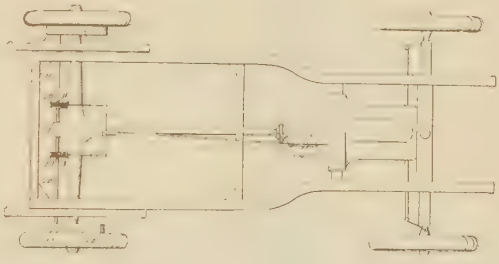
1,414,881. PRESS. WILLIAM G. KENDALL, Newark, N. J., assignor to Henri Rigaud, New York, N. Y. Filed Nov. 4, 1920. Serial No. 421,766. 5 Claims. (Cl. 113—1.)

1. In a press for uniting the sections of an article, comprising a lower die having a plunger adapted to support one of the sections of an article, the plunger being adapted to be moved by the operator to eject the finished article, an upper die having its axis coinciding with that of the lower die and normally removably seated on the said lower die, the said upper die being adapted to contain the other section of the article, a plunger movable upward by the operator in the upper die to permit of



placing the other section of the article therein, and pressing means adapted to engage the said plunger in the upper die to move it downward to force the section in the upper die into engagement with the section in the lower die to unite the sections with each other.

1,414,882. VEHICLE BRAKE. CHARLES KOKESH, Cainesville, Mo. Filed Aug. 5, 1921. Serial No. 490,121. 6 Claims. (Cl. 188—31.)

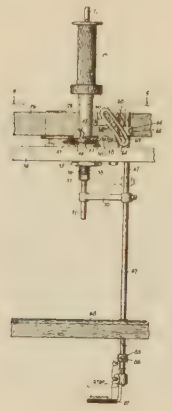


1. An auxiliary brake mechanism for motor driven vehicles and the like provided with ratchets having geared connections with the driving wheels of the car, a pawl carrying spindle having pawls arranged in operative relation respectively with the ratchets, the latter being movable during the forward rotation of the drive wheels without tending to communicate motion to the spindle, and means for holding the spindle against rotary movement.

1,414,883. STOP MOTION FOR SPINNING MACHINES. NATHAN L. LAWTON, Dover, N. J. Filed Apr. 26, 1921. Serial No. 464,544. 7 Claims. (Cl. 118—7.)

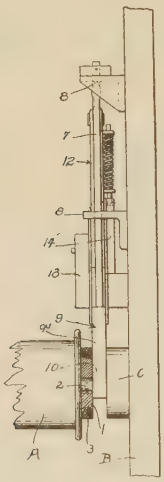
1. In a spinning machine, a driven belt, a spindle, a spindle support having a pivot parallel to the axis of the spindle to allow the spindle support to swing bodily to move the spindle into and out of engagement with the said belt, a spring pressing the said spindle support to hold the spindle in contact with the said belt, a member mounted to turn on an axis parallel to the axis of the spindle, a connection connecting the said member with

the said spindle support, a cam controlling the said member, and means controlled by the yarn to be wound



on a spool held on the spindle and controlling the said cam to move the spindle out of engagement with the said belt on the breaking of the yarn.

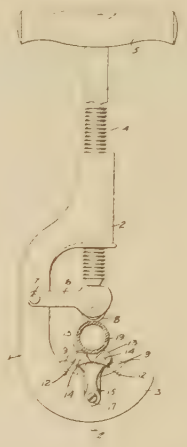
1,414,884. CLUTCH LOCK. SAMUEL B. LIVINGSTON, Wilson, Pa. Filed Mar. 13, 1920. Serial No. 365,506. 1 Claim. (Cl. 192—114.)



In combination with a shaft, a drum mounted thereon, a bearing member for the shaft, and a clutch member slidable on the shaft into and out of engagement with the drum; a ring connected to said clutch member for shifting the same, a yoke adjustable toward and away from the shaft, and blocks mounted on the arms of the yoke and adapted to fit snugly between said ring and the bearing member when the clutch member is in and the yoke is moved into operative position toward said shaft.

1,414,885. ATTACHMENT FOR PIPE CUTTERS. HENRY WILLIAM LOOSE, Brooklyn, N. Y. Filed Sept. 14, 1921. Serial No. 500,615. 2 Claims. (Cl. 81—206.)

1. The combination with a pipe cutter, including a main frame, a pair of rollers journaled therein and spread apart and having a recess therein accommodating the rollers, of an attachment including a boxlike frame fitting the recess between the rollers, other rollers carried by said last mentioned frame and supported on said

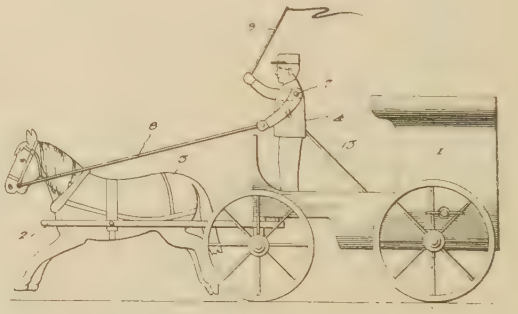


first-mentioned rollers, and means integral with the last mentioned frame adapted to be rigidly locked to the outside of the first mentioned frame.

1,414,886. TOOTHBRUSH. HARRY MATSUNAGA, San Francisco, Calif. Filed June 13, 1921. Serial No. 477,245. 1 Claim. (Cl. 15—176.)

A tooth brush comprising a handle formed at one end with an elongated substantially rectangular socket having one extremity formed with an overhanging flange, and provided at its side edges with overhanging flanges, and a brush head including a back carrying bristles and detachably engaged within said socket beneath said flanges, the sides of the socket being resilient whereby to permit outward and inward springing thereof.

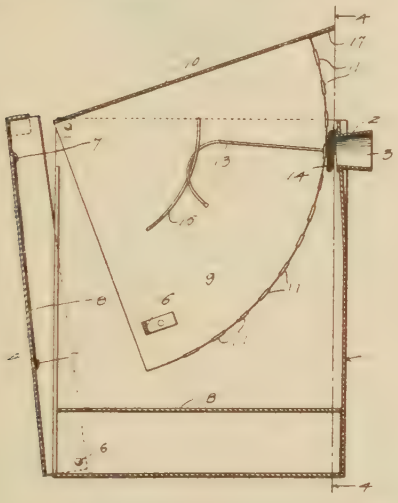
1,414,887. FIGURE WHEELED TOY. JOE MAZUR, Monessen, Pa. Filed Apr. 30, 1921. Serial No. 465,637. 1 Claim. (Cl. 46—45.)



Shafts journalled in a vehicle, a horse pivotally mounted between said shafts, a driver mounted within said vehicle at the front thereof, a crank rod having its ends passing through holes formed in said shafts for pivotally mounting the horse between the shafts and having the center part thereof looped to engage the horse, said driver having his arms secured to the ends of one of said shafts and having one arm extending downwardly and the other

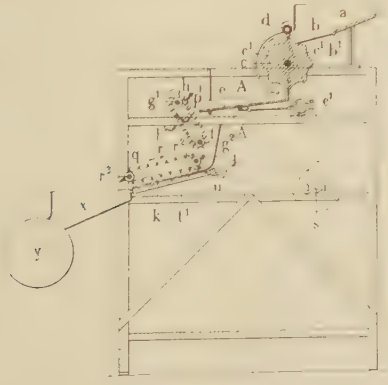
raised, a rein adapted to connect a downwardly extending arm with the head of the horse and a whip carried by the remaining arm, a spring motor supported in said vehicle body and geared to the rear axle thereof, a crank provided on said motor and links connecting said crank with the raised arm of the driver, and the front axle of the vehicle placed at an incline to permit the toy to travel in a wide circle.

1,414,888. EYE TESTER. HENRY E. MYERS, Bowman, N. Dak. Filed Jan. 6, 1921. Serial No. 435,452. 1 Claim. (Cl. 88—22.)



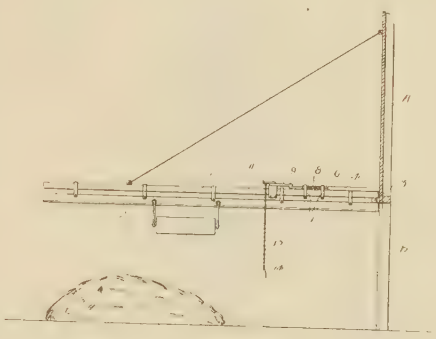
An eye tester comprising a support including side, front and bottom walls, said front wall having sight openings adjacent its upper end and a depression between said openings to receive the nose of a person, a top wall pivoted to the side walls, a rear wall pivoted to the side walls adjacent their lower edge and carrying a chart, flanges formed on the rear walls and adapted to have frictional contact with the side walls to hold said rear walls in adjusted positions, segmental shaped plates secured to the top wall and movable within the side walls, and means supporting eye glasses on the curved edges of said plates.

1,414,889. MACHINE FOR REMOVING THE STALKS FROM FRUITS. PLACIDE ÓSCAR NAVARRE, Paris, France. Filed July 16, 1921. Serial No. 485,285. 13 Claims. (Cl. 146—5.)



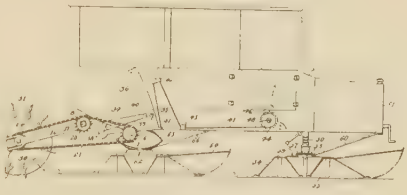
2. In a machine for removing the stalks from fruit, a feeding hopper, fixed inclined troughs having slots in their bottoms, means for pulling off the stalks extending through the slots, and endless chains of brushes, one for each trough.

1,414,890. BOOM ADJUSTER. BERT O. NELSON, Scandinavia, Wis. Filed Mar. 8, 1921. Serial No. 450,549. 2 Claims. (Cl. 104—92.)



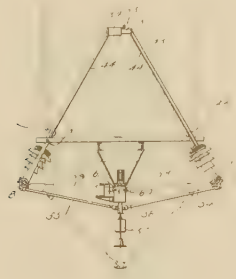
1. In a device as set forth, the combination, with a pivoted boom, of a quadrant, a slidable locking dog carried by said boom and adapted to engage said quadrant locking the boom in adjusted positions, a bell crank carried by said boom, a link connecting said bell crank and dog, and flexible means connected to said bell crank for locking it.

1,414,891. MOTOR SLEIGH. KAZIMNIERZ A. OBACH, Winnipeg, Manitoba, Canada, assignor of one-half to Joseph Weliszek, Winnipeg, Canada. Filed June 14, 1921. Serial No. 477,461. 1 Claim. (Cl. 180—6.)



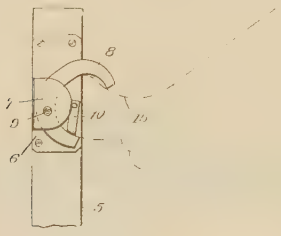
In a motor sleigh, the combination with a runner provided vehicle body having a rear driven axle, a pair of arms disposed at the sides of said body and extending rearwardly beyond the latter, means to pivotally mount said arms for vertical swinging movements to the rear portion of said body, rotatable spur carrying drums journaled between the rear ends of said arms, means for transmitting rotary motion from the rear axle to said drums, housings or casings attached to the sides of the body into which the forward ends of said arms project and are vertically movable, springs within said housings beneath the forward ends of said arms for normally yieldingly holding said arms in a tilted position with the spurs of the traction drums yieldingly engaging the ground, manually operable means associated with the forward ends of said arms for forcibly tilting the latter to increase the tractive effort of the spur carrying drums, said last named means embodying a resilient spring element of looped form arranged beneath the forward end of each arm and pivoted upon a horizontal axis with the arms of said spring element extending forwardly and with the upper arm of the element engaging the under side of the adjacent traction drum carrying arm, said spring elements each embodying normally separated resiliently connected arms, and means for exerting an upward pull upon the lower arm of each spring element.

1,414,892. PENDULUM HIGH-VOLTAGE AIR-BREAK SWITCH. JOHN K. OSTRANDER, New York, N. Y. Filed Dec. 31, 1919. Serial No. 348,514. 20 Claims. (Cl. 200—48.)



1. A high potential air-break switch including a support, a supporting arm pivotally connected to said support, a switch member carrier bar connected to said arm and extending transversely thereof at a point spaced from the point of pivotal support, a contact arm connected to said carrier bar at a point offset from said arm.

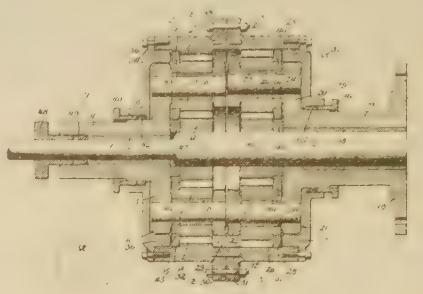
1,414,893. LADDER ATTACHMENT. CHARLES MELLEM PERRIER, Brockton, Mass. Filed Oct. 19, 1920. Serial No. 417,910. 3 Claims. (Cl. 228—51.)



1. The combination with a ladder leg and a guard secured thereto for automatically gripping a fixed part of a building, said guard comprising a plate, a hook-like member pivoted to the plate having inturned ends with one end normally projecting beyond the ladder leg, whereby as the ladder is applied to a building said projecting end is moved inwardly while the opposite end is forced outwardly, automatically gripping a fixed part of the building, and a catch engageable with said member and locking the same against retraction.

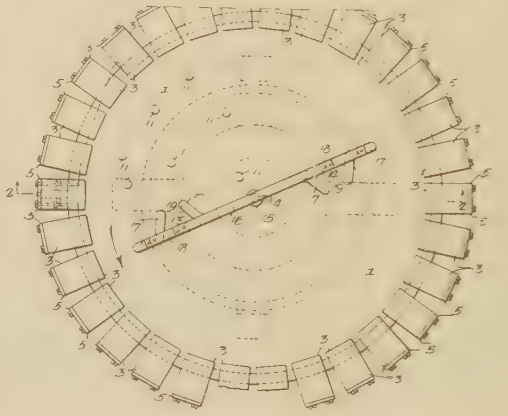
1,414,894. SPEED-REDUCING POWER-TRANSMITTING MECHANISM. BYRON B. PHILLIPS, Hudson, N. Y. Filed June 14, 1918. Serial No. 240,026. 2 Claims. (Cl. 74—34.)

1. Speed changing gearing, comprising a shaft, neighboring gears fast thereon, gear cages each carrying a circular series of pinions meshing with and individual to a respective one of the first named gears with each cage traversed by the shaft, one of the gear cages having means whereby it may be held against rotation and the other gear cage having means for connecting it to a part to be driven, internal gears surrounding and individual to the gear cages and meshing with the gears therein, said internal gears being fixedly connected together for common rotation, and rings carried by the circular series of gears and constituting antifriction members for rotating parts of the speed changing gearing, the gear cages being



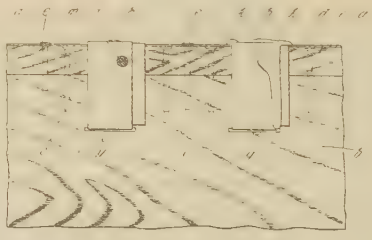
located in close relation and provided with a thrust ring between them.

1,414,895. METHOD AND APPARATUS FOR CONVERTING MOTION. HAVILAND H. PLATT, New York, N. Y. Filed Apr. 24, 1920. Serial No. 376,215. 9 Claims. (Cl. 74—14.)



1. The combination of a series of relatively small bodies freely movable in a single plane; means for maintaining said bodies in random motion; and means for converting the random motion of said bodies into directed motion.

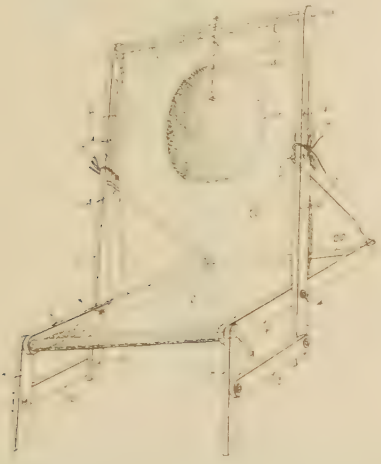
1,414,896. PACKING CASE. HENRY HAROLD READ, London, England. Filed Nov. 12, 1921. Serial No. 514,748. 2 Claims. (Cl. 217—56.)



1. A packing case having the contiguous portions of its adjacent sides secured together by means of strips of hoop iron or the like passing through slots in the marginal portions and around the edge of said sides, the

overlapping portions of said strips being nailed or similarly fastened to said sides and secured together by means of solder or the like which covers the head of the nail or the like.

1,414,897. INFANT'S BATH CHAIR. FRANCIS J. REILLY, New York, N. Y. Filed May 14, 1921. Serial No. 469,433. 2 Claims. (Cl. 155—54.)



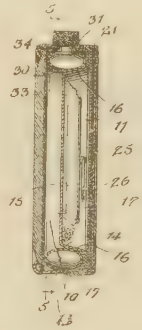
2. In a bath chair for infants, a flexible cloth body forming a seat and back structure, said back structure having a concave portion merging into the body for receiving part of the head of the infant when the device is in use.

1,414,898. GRAPHOPHONE. LEOPOLDO ROBERTO, Philadelphia, Pa. Filed Oct. 28, 1920. Serial No. 420,147. 1 Claim. (Cl. 274—24.)

A tone arm for graphophones having a pair of relatively small and a pair of relatively large notches within the inner end of the tone arm and perforated at points diametrically opposite the small notches of the tone arm, an elbow section received in the inner end of the tone arm and having an integral lateral lug engaging in one of said relatively large recesses to prevent rotary movement of the elbow in the tone arm, a transverse screw carried by the elbow, the portion of the screw between the elbow and its head being received in one of the small recesses of the said tone arm and the opposite end of said screw passing through the elbow and into one of the perforations of the tone arm to retain the elbow therein, and a sound box carried by the other end of the elbow.

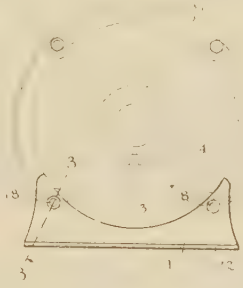
1,414,899. VANITY BOX. MICHELE MARIO SABATELLI, Leominster, Mass. Filed June 30, 1921. Serial No. 481,521. 20 Claims. (Cl. 132—83.)

13. A vanity box comprising a body portion having a side wall and a centrally dished portion having a bottom and a side wall spaced from the side wall of said body portion to form a powder compartment, a removable top for said powder compartment having means for maintaining therein a panel member so as to be visible from the exterior of said compartment, said body portion having a second compartment between said side walls surrounding said first mentioned compartment adapted to hold perfume and accessible without removing said top, a panel in said body portion beneath the bottom of said powder com-



partment, and an inturned flange on the side wall of the body portion to maintain said last mentioned mirror in position, one of said panels being a mirror.

1,414,900. GENERATOR AND MOTOR SUPPORT. AMATO N. SAMMARONE, Akron, Ohio. Filed May 29, 1920. Serial No. 385,377. 6 Claims. (Cl. 172—36.)



4. A section-built generator or the like, including closure caps, a stamped metal base foot for each end, with a portion shaped to form a cradle in which the caps recline, and with flanges resting on the floor; and common fastening means securing the base, caps and other parts of the generator together.

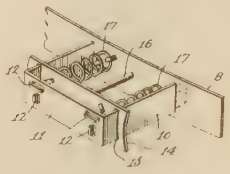
1,414,901. DOLL'S HEAD WITH MOVABLE EYES. MABEL H. SLATER, New York, N. Y. Filed Feb. 28, 1921. Serial No. 448,329. 2 Claims. (Cl. 46—40.)

1. A doll's head having, in combination, a nose, a pair of eyes located on opposite sides of said nose, said head having elongated grooves terminating at their opposite ends in pockets, in which grooves said eyes are located and along which they are adapted to roll from one of said pockets to the other, whereby they may assume different positions.

1,414,902. NECKTIE-DISPLAY STAND. RUFUS C. SMITH, Huntington, W. Va. Filed Oct. 18, 1921. Serial No. 508,447. 1 Claim. (Cl. 211—24.)

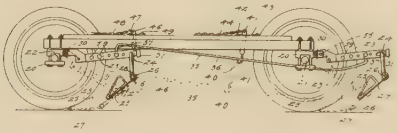
In a necktie display-stand, a rotary wheel carrying on the outer face of its rim a series of necktie-clamps each embodying a rigid U-shaped frame projecting from the face of the wheel, a clamp-plate provided with a hole at each

end through which the side-bars of said U-shaped frame pass, spring-means for pressing said slidable clamp-plate toward the outer cross-bar of the U-shaped frame, and a



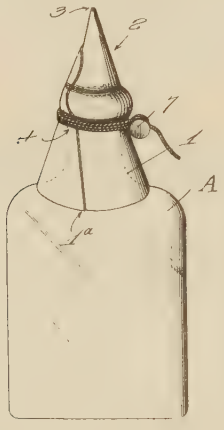
guide-rod connected to said slidable clamp-plate and extending inwardly through a hole in the wheel, for the purpose set forth.

1,414,903. AUTOMOBILE COMBINATION JACK. JAMES H. THOMAS, Los Angeles, Calif. Filed Feb. 8, 1921. Serial No. 443,356. 10 Claims. (Cl. 254—86.)



1. A vehicle jack having bracket arms mounted to swing parallel with the planes of the wheels, crank arms journaled on said bracket arms, shoes pivoted to the crank arms for arrangement in the paths of the wheels disposed beyond a vertical line passing through the wheel axis when the wheel is raised, and means to normally maintain the bracket arms in an elevated position.

1,414,904. NIPPLE FOR NURSING BOTTLES. ANNA CHARLOTTE THORBJORNSON, Nadeau, Mich. Filed Apr. 4, 1921. Serial No. 458,404. 3 Claims. (Cl. 128—252.)



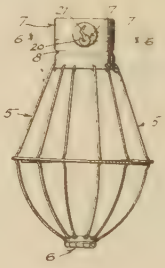
1. A nursing nipple formed from a flat sheet of washable material rolled upon itself to provide a cone to fit over the mouth of a bottle, and means to retain it on the bottle.

1,414,905. SPINDLE. HOMER A. TIFFANY, Paterson, N. J., assignor to Benjamin Buckley's Son, Inc., Paterson, N. J., a Corporation of Delaware. Filed Mar. 19, 1921. Serial No. 453,650. 1 Claim. (Cl. 64—56.)

In a spinning or the like spindle, the combination of a bolster having an upright bore closed at its lower end and an interior lubricant groove extending downwardly and open to the bore, a sleeve fitting the bore and forming interiorly thereof a bearing and covering the groove for a part of the length thereof while leaving the lower part of said groove uncovered, and a spindle proper fitting and

rotative in said bearing, the bolster forming an upper lubricant receiver around the spindle proper and also having a lower lubricant receiver and said receivers having the sleeve intervening between them and communicating with each other for passage of lubricant via said groove and between the bearing and spindle proper.

1,414,906. LAMP-LOCK GUARD. CHARLES W. TRULOCK, Los Angeles, Calif. Filed Apr. 23, 1921. Serial No. 464,004. 3 Claims. (Cl. 240—102.)

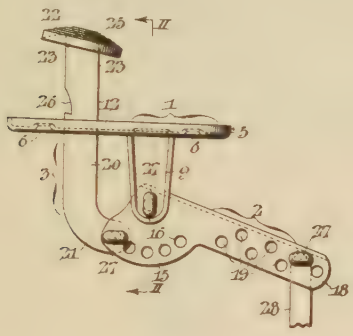


1. The combination with a lamp and socket, of a guard comprising sections having half collars co-operating to form a collar received around the socket, said half-collars having overlapping ends and lug and recess connections between the same, one of said half collars having a bearing opening, a barrel therein having a radial slot, the said half collar having a key slot extending beyond said barrel and adapted to aline with the radial slot, and a key having a laterally extending operating end, said slots being arranged to receive said key, the parts being arranged for engagement by said key end of one of said overlapping ends of the half collars in order to pry the same apart and thereby disconnect the lug and recess connection.

1,414,907. FOOT-CONTROL PEDAL. CLARENCE VOGT, Wenonah, N. J., assignor to Vogt Bros. & Squier Company, Philadelphia, Pa., a Corporation of Delaware. Filed Feb. 11, 1921. Serial No. 444,104. 4 Claims. (Cl. 74—81.)

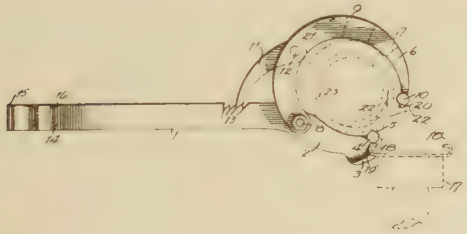
1. A pedal structure of the character described comprising in combination a mounting bracket; and a bell

crank lever fulcrumed to said bracket, said lever being formed of a single piece of sheet metal bent about an axis of symmetry with provision for an interspace between the



two coincident sides thus produced, so as to be capable of receiving at its extremities between said sides, the ends, respectively, of a treadle element, and a connecting link coordinated with the device which is to be operated.

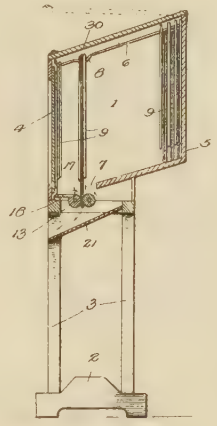
1,414,908. CLINCHER-TIRE REMOVER AND REPLACER. FRANCAIS E. WAFER, Chicago, Ill. Filed Aug. 20, 1920. Serial No. 404,886. 2 Claims. (Cl. 157—6.)



1. A tool of the character described comprising a handle having a plurality of teeth fashioned therein and having one end formed into a curved tong member, said tong member being provided at its end with a jaw piece disposed at right angles thereto, and with a projecting head extending laterally therefrom, the outer side of said head being curved inwardly, a second tong member curved to conform with the contour of a tire and pivoted at one end to the handle in position to cooperate with said first named tong member, said second named tong member being formed with a jaw piece disposed at right angles thereto and arranged to face said first named jaw piece, and means for preventing an opening movement of said second named tong member about its pivot, said means comprising a pawl carried by said second tong member and being adapted to engage with the teeth of said handle.

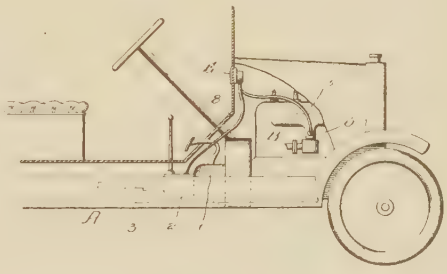
1,414,909. VENDING MACHINE. WILLIAM W. WASSON, Yakima, Wash., assignor of one-half to George I. Clithero, Yakima, Wash. Filed May 17, 1920, Serial No. 381,886. Renewed Mar. 2, 1922. Serial No. 540,612. 2 Claims. (Cl. 211—8.)

1. A vending machine including a casing, spacers between which the articles are to be placed, means for slidingly supporting the spacers for gravital movement to a discharge position, and means for temporarily arresting such gravital movement in such discharge position, and intergeared rolls to be operated to withdraw the articles from between the spacers for discharge, means to compel an initial separation of the rolls for a portion of their



revolution to provide a space for the entrance of the articles, and springs for normally holding the roll surfaces in contact.

1,414,910. MEANS FOR INDICATING STOPPING, IDLING, AND WORKING TIMES OF AUTOMOBILE ENGINES. ROBERT WATSON, Silver Spring, Md. Filed Dec. 20, 1921. Serial No. 523,727. 5 Claims. (Cl. 161—15.)

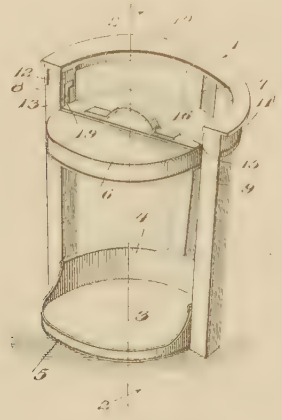


1. The combination with a motor vehicle having an internal combustion motor, of three time indicators, means for operating one of said indicators while the motor and vehicle are stopped, means for automatically stopping the latter indicator and starting a second one of said indicators when the motor starts, and means for automatically stopping said second indicator and starting the third of said indicators when the vehicle starts.

1,414,911. RECEPTACLE SUPPORT. THEODORE W. WATSON, Phoenix, Ariz. Filed Aug. 31, 1920. Serial No. 407,111. 3 Claims. (Cl. 220—1.)

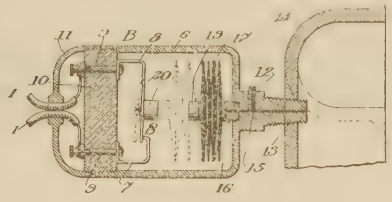
3. A receptacle support of the class described comprising a base, a plurality of hollow vertical supports attached to the base and having inverted L-shaped slots in the inner faces of the upper portions of certain of said supports, a cover having laterally extending plates with reduced necks connecting them to said cover and adapted to slide in said slots and the plates in said supports, said

necks being angular in cross section whereby said cover may be supported in horizontal position when the necks



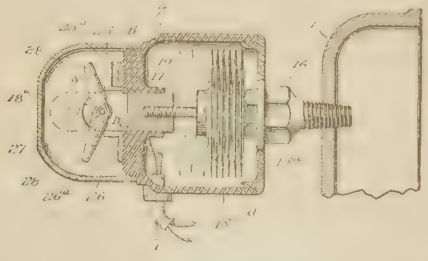
are in the vertical portion of said slots and held thereby against rotation.

1,414,912. IGNITION-CIRCUIT CONTROLLER. GEORGE H. WHITTINGHAM, Baltimore, Md. Filed Jan. 14, 1919. Serial No. 271,135. 2 Claims. (Cl. 200—81.)



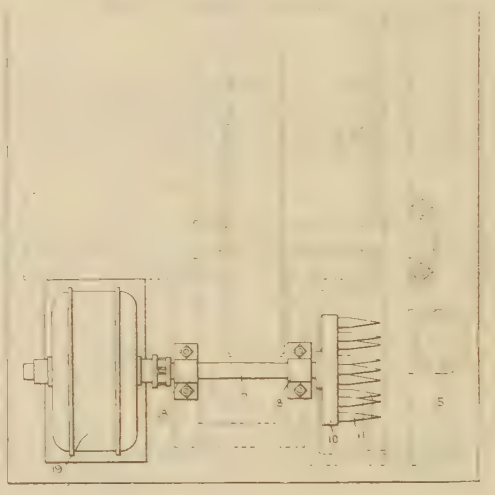
1. A vacuum controlled switch adapted for operation by the suction of an internal combustion engine comprising a normally expanded bellows adapted to collapse in response to reduction in internal pressure, said bellows having a relatively small inlet opening adapted to restrict the flow of fluid into the bellows and retard the movement of its walls, a normally open switch adapted to be closed by said bellows during the initial part of its contracting movement and to be opened thereby during the final part of its expanding movement, said bellows having a relatively long range of movement after the closure of the switch and also prior to the opening of the switch.

1,414,913. IGNITION-CIRCUIT CONTROLLER. GEORGE H. WHITTINGHAM, Baltimore, Md. Filed Aug. 7, 1919. Serial No. 315,874. 5 Claims. (Cl. 200—81.)



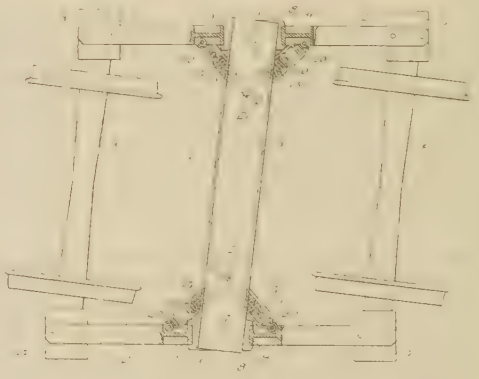
1. A vacuum-controlled switch adapted for operation by the suction of an internal combustion engine, comprising an expansible and contractible air chamber having a wall normally in expanded position and movable in response to reduction in internal air pressure to its contracted position, said chamber having a relatively small inlet opening adapted to retard the flow of air into the chamber and cause slow movement of the wall, two contact members adapted to engage at the commencement of the contracting movement of the chamber and to separate at the end of the expanding movement, one of said contact members being yieldingly connected to said movable wall, said chamber having a relatively long contracting movement after the closure of the switch and a relatively long expanding movement prior to the opening of the switch.

1,414,914. PULP-WOOD BREAKER. ALBERT D. WOOD, LAWSON TRANTHAM, and EDWARD T. SELF, Canton, N. C. Filed Sept. 17, 1920. Serial No. 410,966. 6 Claims. (Cl. 83—75.)



1. The combination with a chipper head of a pronged breaker head having chip impaling means disposed in the path of chips projected from the former.

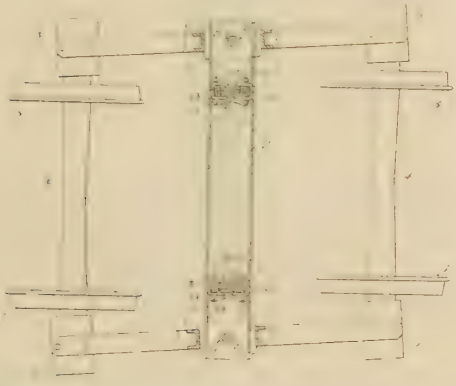
1,414,915. CAR TRUCK. GUSTAF ARVID ANDERSON, Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 13, 1921. Serial No. 437,060. 37 Claims. (Cl. 105—179.)



1. In a car truck, the combination with transversely spaced side frame members which are relatively movable longitudinally of the truck, of means movably connecting said side frame members intermediate the ends thereof

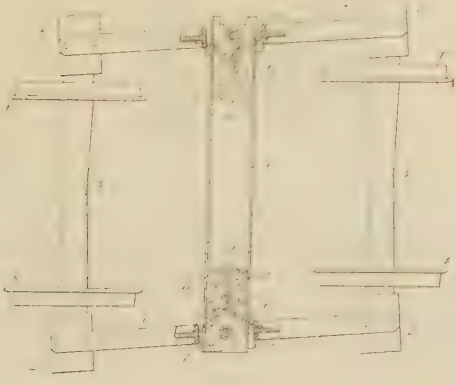
and adapted to be turned angularly with respect thereto upon a relative longitudinal displacement of said side frame members, and resilient means affording yielding resistance to longitudinal separation of said side frame members, said resilient means being adapted to be energized by said connecting means upon a longitudinal separating movement of said side frame members.

1,414,916. CAR TRUCK. GUSTAF ARVID ANDERSON, Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 17, 1921. Serial No. 437,974. 16 Claims. (Cl. 105—179.)



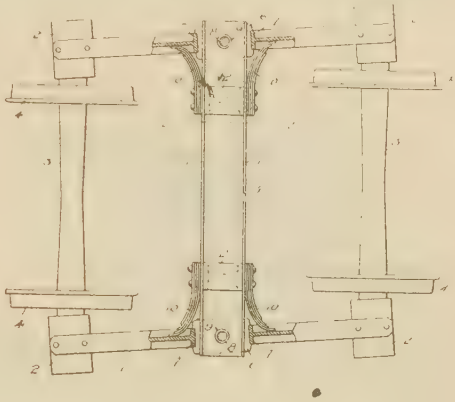
1. In a car truck, the combination with side frame members which are relatively movable longitudinally of the truck of means for connecting said side frame members, a spring device mounted on said connecting means between said side frame members, and means rigidly secured to one of said side frame members for energizing said spring device by a longitudinal displacement of said frame member from normal position.

1,414,917. CAR TRUCK. GUSTAF ARVID ANDERSON, Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 19, 1921. Serial No. 438,476. 16 Claims. (Cl. 105—179.)



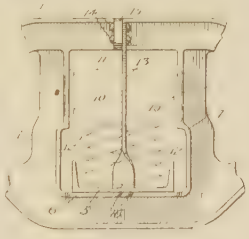
1. In a car truck the combination with side frame members which are relatively movable longitudinally of the truck, of means for movably connecting said side frame members, and a leaf spring operatively interposed between said connecting means and one of said side frames for yieldingly resisting relative longitudinal displacement of said side frames from normal position.

1,414,918. CAR TRUCK. GUSTAF ARVID ANDERSON, Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 19, 1921. Serial No. 438,477. 10 Claims. (Cl. 105—179.)



1. In a car truck, the combination with side frame members which are relatively movable longitudinally of the truck, of means for movably connecting said side frame members, and means located intermediate the ends of said side frame members and having a changing rate of resistance for yieldingly opposing relative longitudinal displacement of said side frame members from normal position.

1,414,919. CAR TRUCK. GUSTAF ARVID ANDERSON, Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 20, 1921. Serial No. 438,652. 12 Claims. (Cl. 105—179.)

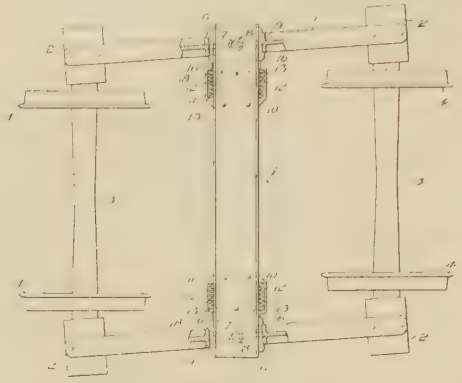


1. In a car truck, the combination with side frame members which are relatively movable longitudinally of the truck, of means for movably connecting said side frame members, and torsion spring means for resisting relative longitudinal displacement of said side frame members from normal position.

1,414,920. CAR TRUCK. GUSTAF ARVID ANDERSON, Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 22, 1921. Serial No. 439,096. 12 Claims. (Cl. 105—179.)

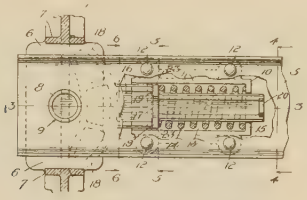
1. In a car truck, the combination with side frame members which are relatively movable longitudinally of the truck, of means for movably connecting said side

frame members, and means for yieldingly resisting relative longitudinal displacement of said side frame members



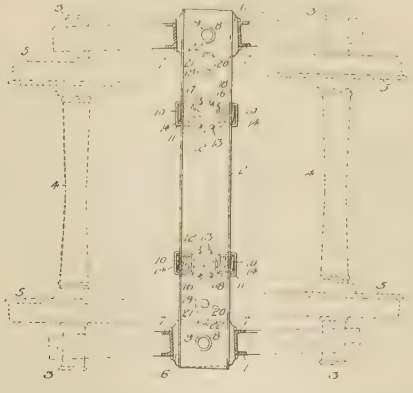
from normal position throughout a portion only of said displacement from normal.

1,414,921. CAR TRUCK. GUSTAF ARVID ANDERSON, Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 25, 1921. Serial No. 439,811. 13 Claims. (Cl. 105—179.)



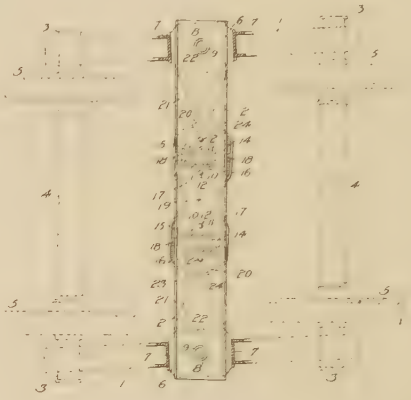
1. In a car truck, the combination with transversely spaced side frame members which are relatively movable longitudinally of the truck, of means for movably connecting said side frame members across the truck, and means for yieldingly resisting relative longitudinal displacement of said side frame members, said last named means involving a spring and unitary means cooperating with an adjacent one of said side frame members for energizing said spring upon displacement of said adjacent frame member longitudinally in either direction from its normal position.

1,414,922. CAR TRUCK. GUSTAF A. ANDERSON, Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 23, 1922. Serial No. 531,245. 14 Claims. (Cl. 105—179.)



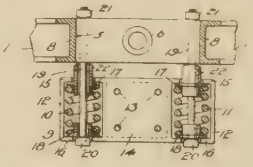
1. In a car truck, the combination with side frame members which are relatively movable longitudinally of the truck, of means connecting said side frame members, and yieldable means interposed between said side frame members and connecting means, said yieldable means including a lever arranged between one of said side frame members and said yielding means for energizing the latter.

1,414,923. CAR TRUCK. GUSTAF A. ANDERSON, Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 23, 1922. Serial No. 531,246. 18 Claims. (Cl. 105—179.)



1. In a car truck, the combination with side frame members which are relatively movable longitudinally of the truck, of means connecting said side frame members, and yieldable means interposed between said side frame members and connecting means, said yieldable means including a lever floatingly supported between said connecting means and said side frame members for energizing and transmitting displacement movements to said yieldable means, said lever also serving to impart restoring movement to the side frame members from said yielding means.

1,414,924. CAR TRUCK. GUSTAF A. ANDERSON, Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y., a Corporation of Delaware. Filed Feb. 1, 1922. Serial No. 533,373. 20 Claims. (Cl. 105—179.)

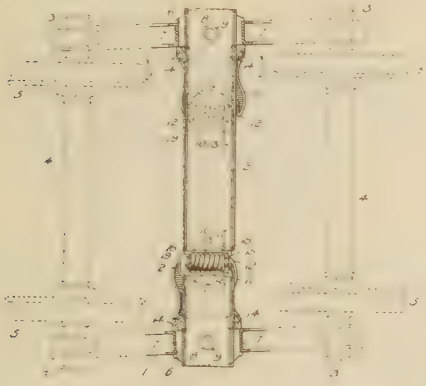


1. In a car truck, the combination with movable side frame members, of means connecting said side frame members, and oppositely disposed yieldable means for resisting displacement movement of the side frame members from normal position, said yieldable means including spaced spring devices interposed between the side frame members and said connecting means and adapted to be simultaneously energized when resisting displacement movement.

1,414,925. CAR TRUCK. GUSTAF ARVID ANDERSON, Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y., a Corporation of Delaware. Filed Mar. 30, 1921, Serial No. 456,851. Renewed Mar. 17, 1922. Serial No. 544,692. 9 Claims. (Cl. 105—179.)

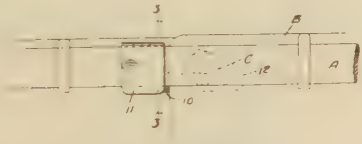
1. In a car truck, the combination with side frame members which are relatively movable longitudinally of

the truck, of means for pivotally connecting said side frame members, a spring carried by said connecting means, and means rigid with one of said side frame mem-



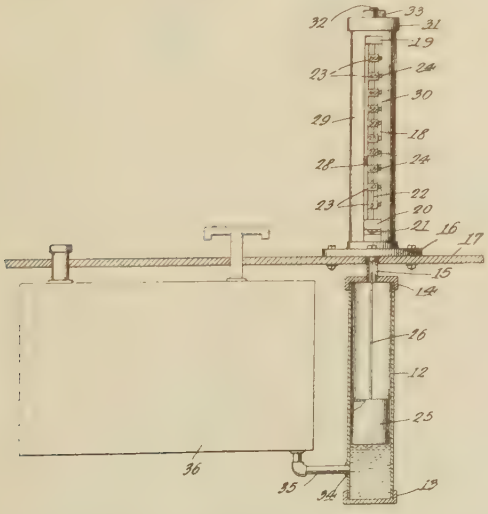
bers for energizing said spring upon a longitudinal displacement of said side frame member in either direction from normal position.

1,414,926. TROUSERS CLIP. ERNEST A. AROLAN, Jersey City, N. J. Filed Aug. 10, 1921. Serial No. 491,215. 2 Claims. (Cl. 24—84.)



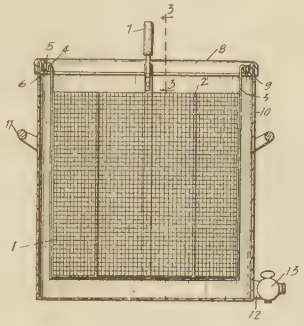
1. A device of the class described having a spring clip and having a hook formation distant from said clip, and in the plane of the latter the bill of the hook being disposed at an angle in the general direction of the clip.

1,414,927. FLOAT GAUGE. OTIS H. AVERS, Cattaraugus, N. Y. Filed Dec. 18, 1920. Serial No. 431,610. 5 Claims. (Cl. 73—82.)



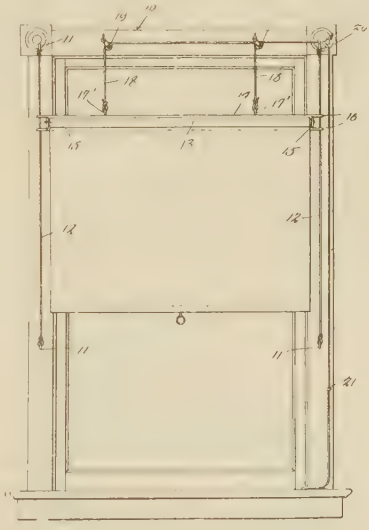
2. A measuring and indicating gauge comprising the combination with a vessel adapted for the admission thereto of liquid, of a float loosely mounted in said vessel, a rod attached to said float and extending upward from said vessel, an index connected with the upper part of said rod, a scale rod, and a series of graduation members adjustably attached to said scale rod and with which the said index co-operates.

1,414,928. DISH WASHER. GEORGE W. BACKUS, Los Angeles, Calif. Filed Nov. 27, 1920. Serial No. 426,835. 2 Claims. (Cl. 141—9.)



2. A washing device comprising a tank, a track having a reversely bent supporting portion sustained on the upper edge of the tank and a track portion extending inwardly from the tank, a receptacle within the tank, hangers secured to the receptacle and having reversely bent upper ends, and rollers rotatably sustained on the upper ends of the hangers and movable over the said track portion.

1,414,929. WINDOW-SHADE HOLDER. GEORGE H. BAKER, San Diego, Calif. Filed Nov. 20, 1920. Serial No. 425,422. 1 Claim. (Cl. 156—27.)

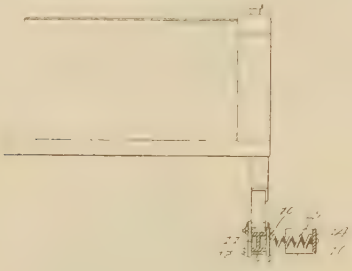


The combination with guide rods of a shade holder comprising a web having upper and lower flanges extending rearwardly therefrom, the web being slit in the direction of its length and bent to form forwardly extended brackets, the flanges being provided with openings for receiving the guide rods and the brackets having means for holding a shade roller.

1,414,930. AUTOMOBILE FENDER. CHARLES L. BATCHELOR, Portland, Oreg. Filed Feb. 26, 1920. Serial No. 361,486. 1 Claim. (Cl. 293—55.)

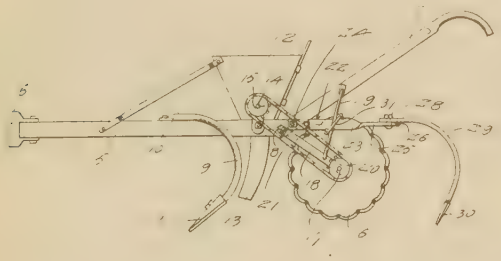
A fender for motor vehicles consisting of an attaching plate and means for securing the same to a vehicle axle, a fender bar disposed in substantial parallelism with said

attaching plate and provided with rearwardly deflected terminals, and a plurality of uniformly spaced compression springs substantially perpendicular to the fender bar



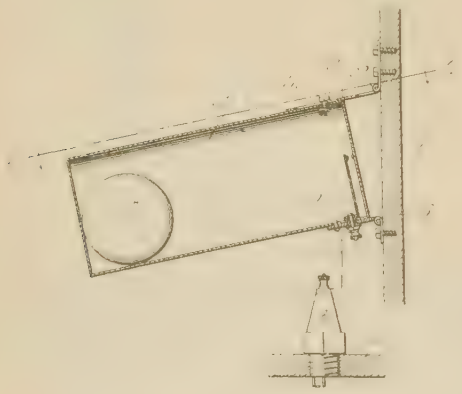
and extending between and terminally attached respectively to said attaching plate and fender bar and serving to support the latter in operative relation with the former.

1,414,931. AGRICULTURAL IMPLEMENT. JAMES W. CARTER, Minden, La. Filed Aug. 6, 1919. Serial No. 315,726. 1 Claim. (Cl. 111—71.)



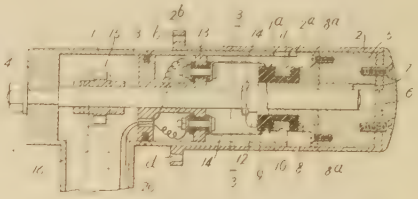
An implement of the class described comprising a frame, a handle bar, a bolt securing said handle bar to the frame, a roller, a support for said roller through which said bolt passes, a brace extending from said bar to said support, soil treating means extending from the frame and crossed by said brace, and a clamp bracket engaging said brace and said soil treating means.

1,414,932. AUTOMATIC GRAVITY IGNITION CUT-OUT FOR TRACTORS. CHARLES CHISMAN, Driggs, Idaho. Filed June 10, 1920. Serial No. 388,040. 2 Claims. (Cl. 200—52.)



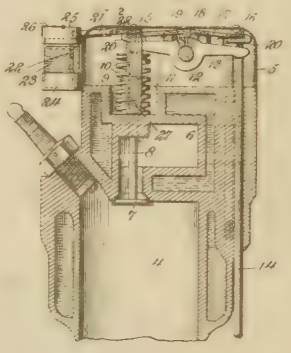
1. The combination with a gravity operated switch including an inclined runway and a switch operating weight movable along said runway; of hinge means for mounting said runway on a support, and means for holding said runway in the numerous inclined positions permitted by said hinge.

1,414,933. APPARATUS FOR THE CONTROL OF VARIABLE-SPEED GEARS. CHRIS TER COCK, Flevorama, Naarden, Netherlands. Filed Jan. 21, 1922. Serial No. 530,898. 2 Claims. (Cl. 200—52.)



1. A device as described comprising a tubular member, a selector shaft journaled therein and adapted to be connected to mechanism to be operated, contacts within the tubular member, a second tubular member rotatable and axially slidable upon the first tubular member and having connection to said shaft whereby to rotate the shaft therewith but permitting of the axial sliding of the second tubular member with respect to the shaft, a contact carried by the second tubular member and adapted to cooperate with the contacts within the first mentioned tubular member, said tubular members having means therebetween for permitting of the axial sliding of the second member when the latter member and selector shaft occupy a definite angular position, substantially as described.

1,414,934. LUBRICATOR FOR VALVE MECHANISMS. WALTER MARTIN COPELAND, Cambridge, Mass. Filed Oct. 19, 1920. Serial No. 417,925. 12 Claims. (Cl. 123—90.)

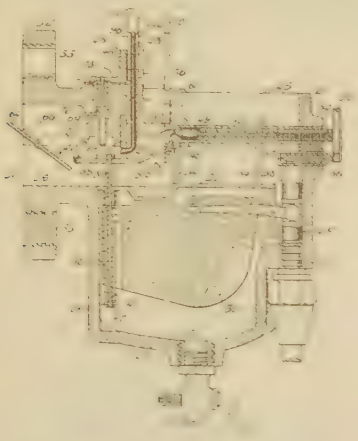


1. Lubricating means for valve mechanisms of internal combustion engines having rocker arms, comprising a strip or pad secured to the under side of the cover of said engine so as to be engageable by an end of each rocker arm, and means for feeding lubricant to said pad.

1,414,935. CARBURETOR. JOHN J. COX and RICHARD WENDELKEN, New York, N. Y., assignors to Julius Winter, New York, N. Y. Filed Jan. 3, 1919. Serial No. 269,437. 3 Claims. (Cl. 261—41.)

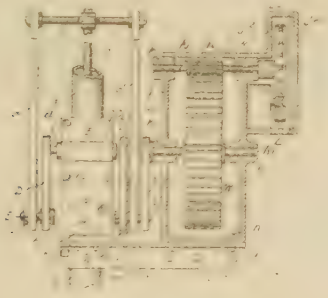
1. A carburetor for internal combustion engines comprising a fuel chamber, a mixing chamber, a valve for controlling the admission of air to the mixing chamber, a reciprocating fuel feeding member in said mixing chamber, a butterfly outlet valve for controlling the flow of combustible mixture to the engine, a plurality of capillary members connected to and movable with said fuel feeding member and extending into said fuel chamber, the area of which members exposed in said mixing chamber varies in accordance with the position of said fuel feed-

ing member, connections between said fuel feeding member and butterfly outlet valve and co-acting parts on



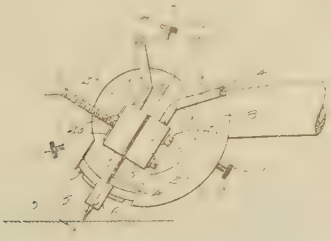
said fuel feeding member and air valve whereby said butterfly outlet valve and air valve may be operated by the fuel valve.

1,414,936. PUMP JACK. OTTO CULLMAN, Chicago, Ill. Filed Oct. 26, 1921. Serial No. 510,480. 4 Claims. (Cl. 74—14.)



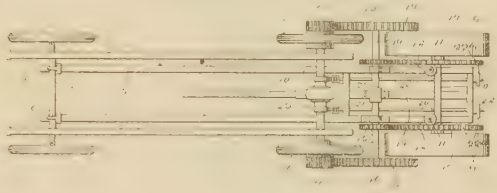
1. In a pump jack, a cross bar attached to a pump rod, a base, a gear box and a plate rigidly attached to said base, and bearings respectively mounted on said gear box and on said plate, in combination with a plurality of shafts rotatably mounted in said bearings in axial alignment, crank arms rigidly secured on said shafts, wrist pins to said crank arms arranged so that pins to adjacent crank arms are common to both thereof, and pitmen mounted on said wrist pins and on said cross bar.

1,414,937. SOUND-DEADENING DEVICE FOR PHONOGRAPH REPRODUCERS. ERNEST F. DAHLHEIM and WALTER S. HULET, Minot, N. Dak. Filed Dec. 13, 1920. Serial No. 430,355. 3 Claims. (Cl. 274—27.)



2. A sound deadening device for phonograph reproducers comprising an attaching member detachably secured to the sound box of a reproducer, parallel arms having diverging ends pivoted to the attaching member, blocks secured to the parallel portions of said arms and arranged on opposite sides of the vibratory transmitter bar of the reproducer and having recesses, pads located in said recesses and varying in length and bearing against the bar upon opposite sides, tension means urging the blocks in the direction of each other, and manual controlled means for moving the blocks away from each other.

1,414,938. TRACTOR ATTACHMENT FOR AUTOMOBILES. LEMI B. DENTON, Pocatello, Idaho. Filed July 26, 1920. Serial No. 398,887. 3 Claims. (Cl. 180—16.)

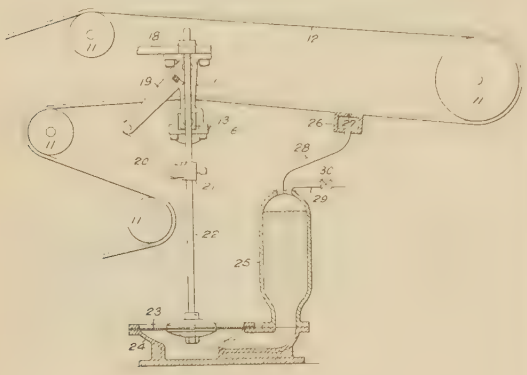


1. A tractor attachment for automobiles comprising spur gears, means to attach the same to the rear wheels of an automobile, and a unit made up of longitudinal bars adapted to extend rearwardly under the rear axle case of an automobile, hooks slidably engaged with said bars and disposed for connection to the front axle of the automobile, a rear axle equipped with traction wheels, means to adjust and adjustably fix the longitudinal bars with respect to said rear axle, counter shafts carried by the longitudinal bars and equipped with spur gears, two of which are intermeshed with the spur gears on the automobile wheels, spur gears revoluble with the traction wheels and intermeshed with the other gears of the counter shafts, and endwise movable rods adjustably connected with the rear portions of the longitudinal bars and having portions to engage the rear axle case of the automobile.

1,414,939. STAMPING MACHINE FOR SIGNAL-READING RIBBON. WILFRID DOUGALL, Montreal, Quebec, Canada. Filed Mar. 13, 1920. Serial No. 365,646. 4 Claims. (Cl. 164—113.)

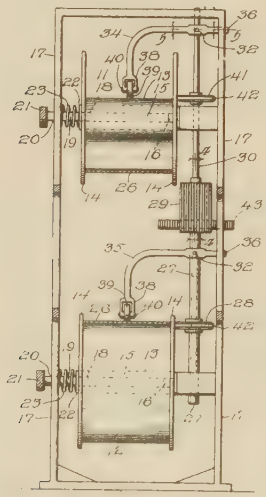
1. In a stamping machine, a frame, a punching mechanism supported thereby and suitably operated, a plurality of rolls of paper on the one side fed through said punching mechanism in several ply arrangement, a single roll taking the ribbons from the aforesaid rolls and returning them thereto, and means for driving the rolls to wind the paper from and to the plurality of rolls through said punching mechanism.

1,414,940. FELT GUIDE FOR PULP AND PAPER MACHINES AND THE LIKE. FRANCIS FORD, Brompton-ville, Quebec, Canada. Filed Mar. 8, 1920. Serial No. 364,051. 6 Claims. (Cl. 74—51.)



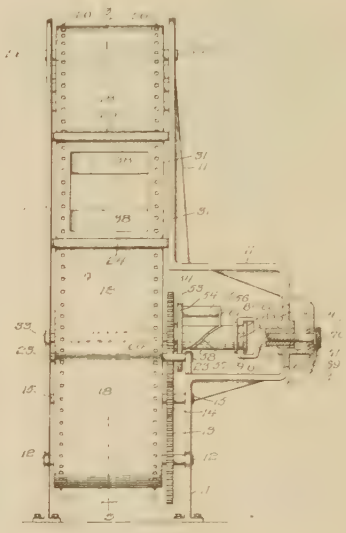
2. A felt strip mounted on rolls, an adjusting roll for maintaining said strip on said rolls, a hydraulic machine having a standing water column operatively connected to said adjusting roll and a vacuum member in operative engagement with said fluid pressure member and regulated by the felt strip in passage thereon.

1,414,941. MOTION-PICTURE TAPE-WINDING MECHANISM. CHARLES H. GILL, Chicago, Ill., assignor to Paul B. Malebranche, Chicago, Ill. Filed Dec. 29, 1920. Serial No. 435,929. 14 Claims. (Cl. 242—55.)



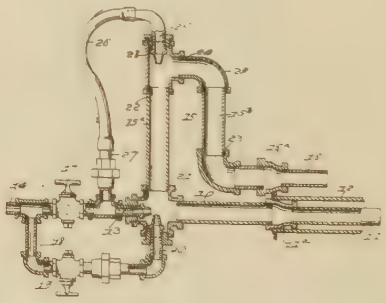
10. In tape winding mechanism, the combination of two spools adapted to have flexible material wound thereon, elements held in contact with the outermost convolution of flexible material upon each of said spools, a telescopic and rotatable shaft carrying two friction wheels fixed thereto, connections between said elements and said telescopic and rotatable shaft whereby said shaft is telescopically actuated by said elements, friction disks forming parts of each of said spools and adapted to be pressed into frictional engagement with said friction wheels, resilient means for pressing said friction disks against said friction wheels, and means for imparting rotary motion to said rotatable and telescopic shaft.

1,414,942. SHUTTER FOR MOTION-PICTURE APPARATUS. CHARLES H. GILL, Chicago, Ill., assignor to Paul B. Malebranche, Chicago, Ill. Filed Jan. 8, 1921. Serial No. 436,002. 4 Claims. (Cl. 88—19.3.)



1. In shutters for motion picture apparatus, the combination of an endless belt having windows spaced apart therein, means for regulating the degree of opening of said windows, and a normally stationary member movable to control the said means for regulating the degree of opening of said windows.

1,414,943. FLUE CLEANER. HERBERT D. GILL, Kane, Pa., assignor of one-half to Charles J. Brahler, Erie, Pa. Filed Dec. 3, 1920. Serial No. 428,063. 9 Claims. (Cl. 122—391.)

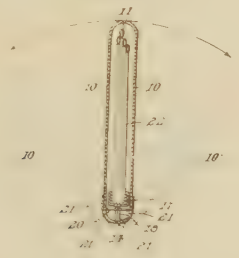


1. A flue cleaner having a duality of pipes in intercommunication, means for producing a forced blast in one of the pipes and a suction in the other, said pipes being provided with terminal nozzles for respective engagement with the ends of boiler tubes, one of said pipes being of looped form and provided with a plurality of swivel joints.

1,414,944. PACKET OR CARTON. ANDREW W. GRAHAM, Buffalo, N. Y., assignor to City Trust Co., branch of The Marine Trust Co. of Buffalo, trustee, Buffalo, N. Y. Filed Dec. 8, 1920. Serial No. 429,238. 4 Claims. (Cl. 206—29.)

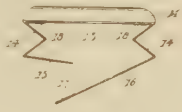
1. The herein described carton consisting of a sheet of foldable material having end portions and a central

portion, said end portions being pressed to form carton sides, said central portion being doubled upon itself to



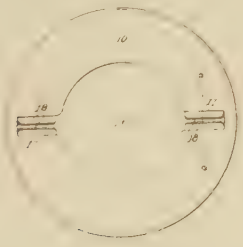
extend inwardly between the sides and thereby form an inwardly projecting rib for the attachment of articles to be packed in said carton.

1,414,945. MATCH PACKET FOR ADVERTISING PURPOSES. ANDREW W. GRAHAM, Buffalo, N. Y., assignor to The City Trust Co., branch of The Marine Trust Co., trustee, Buffalo, N. Y. Filed Jan. 6, 1921. Serial No. 435,443. 5 Claims. (Cl. 206—48.)



1. The combination with a match packet for advertising purposes; of a collapsible wrapper member secured to the back of said packet and adapted to enclose a package such as cigarettes or the like.

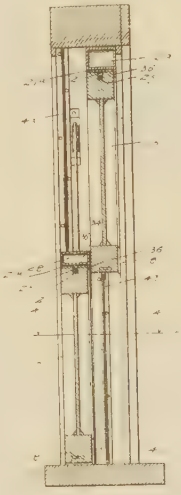
1,414,946. MATCH PACKET OR CARTON. ANDREW W. GRAHAM, Buffalo, N. Y., assignor to The City Trust Co., branch of The Marine Trust Co., as trustee, Buffalo, N. Y. Filed Feb. 2, 1921. Serial No. 441,934. 6 Claims. (Cl. 206—28.)



1. A match carton consisting of a receptacle having an opening in one portion to admit an operator's thumb and finger, said opening being of such size and position as to prevent the escape of a match therethrough, said receptacle also having a withdrawal slot extending from said opening and provided with spring lips forming a yieldable closure for the slot.

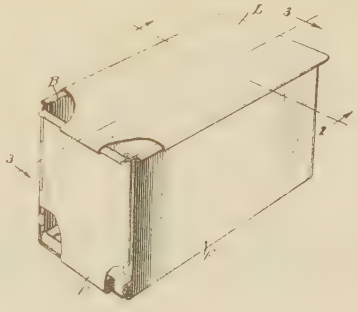
1,414,947. WINDOW. GEORGE GUARD, Atlantic City, N. J. Filed June 16, 1920. Serial No. 389,362. 2 Claims. (Cl. 20—49.)

1. The combination with a window casing having guides, of a pair of inner and outer slide frames engaging said guides and each formed of inverted U-shaped including side portions and an upper cross bar of hollow form and having flanges along the cross bar and the major portions of the sides, said slide frames having their inner walls provided with openings adjacent to the upper and lower ends of their side portions, and inner and outer sashes within the slide frames, each sash having lower laterally projecting pivot pins entering the lower apertures of its slide frame and upper spring controlled and manually releasable locking rods the outer



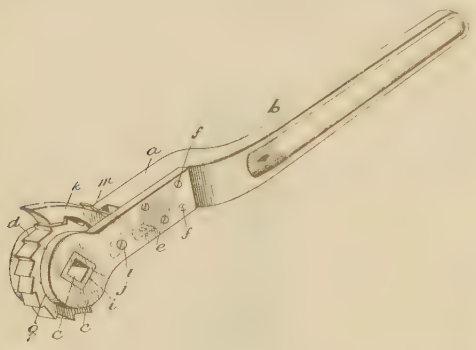
ends of which are engageable in the upper apertures of its slide frame, the outer sash being movable downwardly to a position wherein its upper edge is below the lower edge of the inner sash when the latter is shifted to the top of the casing.

1,414,948. COLLAPSIBLE METAL CRATE. JAMES ALTON HAZEN, Long Beach, Calif. Filed Nov. 8, 1919, Serial No. 336,616. Renewed Mar. 21, 1922. Serial No. 545,600. 1 Claim. (Cl. 220—6.)



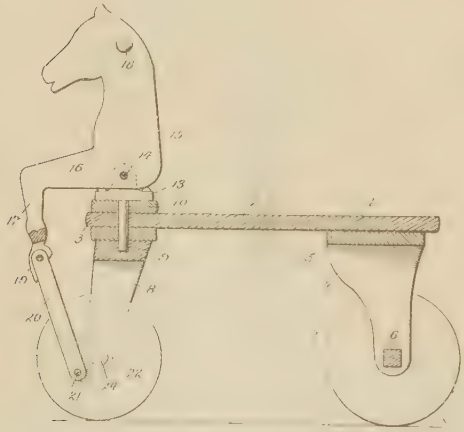
A collapsible crate comprising, a back section, end sections hingedly connected to the back section, an outwardly extending tongue formed on the outer edge of one of the end sections, a bottom section, downwardly and outwardly extending tongues formed on all of the edges of the bottom section and disposed above the plane of the body of said section, a front section, upwardly and inwardly extending tongues formed on the lower edges of the back and front sections, and engageable with the tongues of the bottom section for supporting the latter between the sections, a lid, inwardly extending tongues formed on the side edges and one of the end edges of said lid and spaced therefrom to provide grooves, outwardly extending tongues formed on the upper edges of the front, end and back sections and slidable in the grooves of said lid to engage the lid tongues for confining the lid upon the crate.

1,414,949. WRENCH. NELS HELLEM, Portland, Oreg. Filed Mar. 13, 1919. Serial No. 282,441. 1 Claim. (Cl. 81—60.)



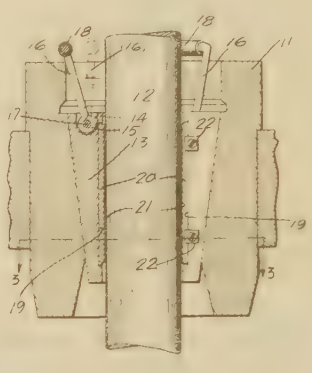
In a ratchet wrench of the character described, a shank provided with an integral offset portion constituting one side of the ratchet wheel housing, a plate firmly secured on said shank overlying and extending the full length of such offset portion, such plate constituting the other side of said housing, a ratchet wheel between the sides, the ratchet wheel being provided on each side face with an annular recess concentric with its axis of rotation, the interior faces of the housing sides being provided with perpendicular annular portions bearing in said recesses of the ratchet wheel and extending completely around the said recesses of the latter, and a curved spring controlled pawl engaging with that side of said ratchet wheel located approximately in that plane of its diameter which is normal to the longitudinal axis of the shank of the wrench.

1,414,950. TOY VEHICLE. WILLIAM LACY HOGE, Louisville, Ky. Filed Nov. 22, 1920. Serial No. 425,793. 3 Claims. (Cl. 208—33.)



1. In a toy vehicle, the combination of a body; wheels for supporting the rear portion thereof; a fork swiveled at the forward end of the body; a lever sustaining element secured to the fork and movable therewith; a lever fulcrumed upon said element; a pair of spaced wheels carried by the fork; a crank pin secured between the adjacent faces of the wheels; and a pitman extending from said crank pin and between the wheels to the lower end of the lever.

1,414,951. ROTARY DRILL-PIPE SLIP. CHESTER C. HOSMER and CARLETON H. WINES, Huntington Beach, Calif. Filed Aug. 3, 1921. Serial No. 489,477. 2 Claims. (Cl. 24—263.)



1. A pipe slip comprising a set of segments adapted to approximately fit a pipe and tapered on their outer faces to fit a bushing, there being recesses upon the inner faces of the segments, said recesses being dovetailed at their upper and lower ends and open at their sides, segmental slip members sliding sideways into said recesses, and plates secured to the sides of the segments and engaging the sides of the slip members.

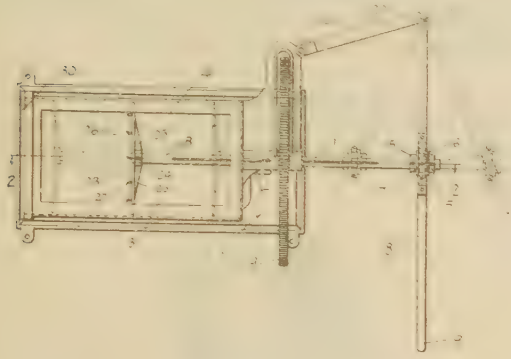
1,414,952. GASOLINE FEED SYSTEM. ERNEST R. HUNTLEY, Toledo, Ohio, assignor to Industrial Research Corporation, Toledo, Ohio, a Corporation of Delaware. Filed Mar. 20, 1920. Serial No. 367,327. 10 Claims. (Cl. 158—36.)

1. In a liquid feed system, a main tank from which fuel is to be lifted, a secondary tank mounted below said main tank and in communication therewith, whereby fuel is supplied said secondary tank from the main tank through gravitational action, a fluid line extending upwardly from said secondary tank and means for conveying air under pressure to the top of said secondary tank.

1,414,953. FRUIT SNOWFLAKER. JOHN B. INGRAM, Los Angeles, Calif. Filed Apr. 11, 1921. Serial No. 460,212. 1 Claim. (Cl. 83—62.)

In a machine of the class described, a container, an elongated bearing formed on one end thereof, a horizontally disposed U-shaped bracket projecting laterally from said bearing, a shaft arranged for sliding movement through said bearing, a portion of which shaft projects into the container, a gear wheel arranged between the legs of said U-shaped bracket and having a slot-and-key connection with said shaft, means for driving said gear wheel, manually operated means for moving said shaft lengthwise

through said bearing, a disk carried by the end of the shaft within said container, and an inclined blade ad-

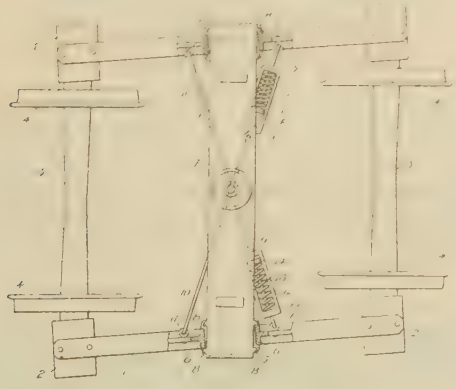


justably arranged in the end of the container opposite to the end that is provided with the bearing.

1,414,954. DUMP WAGON. HANS P. JENSEN-BEÄRLUNDD, Lisbon, Portugal. Filed July 2, 1919. Serial No. 308,255. 2 Claims. (Cl. 298—17.)

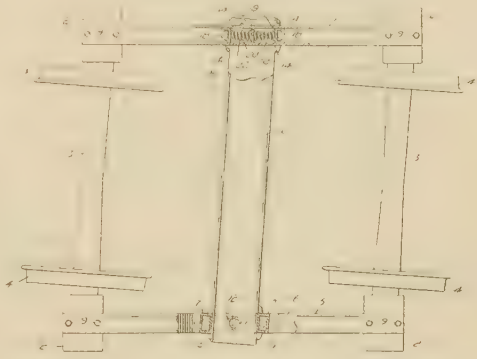
1. A vehicle of the class described comprising a forward frame carrying forward bearing wheels, a motor mounted on said forward frame, a rear frame swingingly coupled to the forward frame and including side members in parallel relation, supporting devices slidably bearing on the side members of said rear frame, a rear axle carrying rear bearing wheels, springs connected to said axle and respectively to said supporting devices, a transmission device carried by the rear axle, a drive shaft extending from said motor, and slidably engaging said transmission device, whereby when the hingedly united frames are broken upwardly the rear axle and its bearing wheels will be moved forwardly without cramping the parts.

1,414,955. CAR TRUCK. BYERS W. KADEL, Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 25, 1921. Serial No. 439,795. 10 Claims. (Cl. 105—179.)



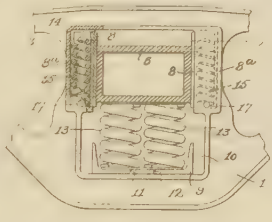
1. In a car truck, the combination with spaced side frame members which are relatively movable longitudinally of the truck, of a bolster, and yielding means connecting said side frames below said bolster and transversely of the truck.

1,414,956. CAR TRUCK. BYERS W. KADEL, Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 28, 1921. Serial No. 440,592. 15 Claims. (Cl. 105—179.)



1. In a car truck, the combination with side frame members which are relatively movable longitudinally of the truck and each of which comprises a tension member, a compression member and interposed struts or bolster guide columns which are rotatable with respect to said tension and compression members, of means for movably connecting said side frames, and means acting upon said column guides for resisting longitudinal displacement of either side frame member from normal position.

1,414,957. CAR TRUCK. BYERS W. KADEL, Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 28, 1921. Serial No. 440,593. 9 Claims. (Cl. 105—179.)

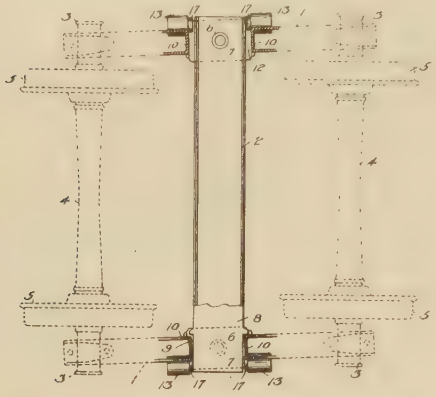


1. In a car truck, the combination with side frame members which are relatively movable longitudinally of the truck, of means for connecting said side frame members, said means being adapted to have a pivotal movement with reference to said side frame members, and vertically extending yielding means carried by said side frame members for resisting a longitudinal displacement of the latter from normal position.

1,414,958. CAR TRUCK. BYERS W. KADEL, Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 23, 1922. Serial No. 531,236. 18 Claims. (Cl. 105—179.)

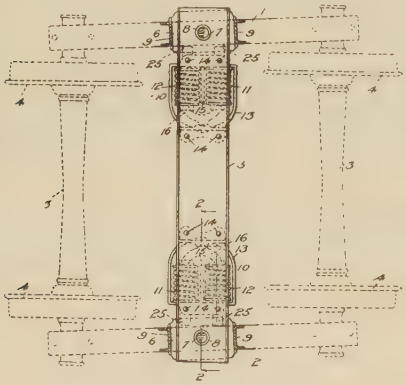
1. In a car truck, the combination with movable side frame members, of means including a spring plank connecting said side frame members, a bolster for said truck, and yieldable means adapted to bear against the ends of

said spring plank and bolster for resisting displacement movement of the side frame members from normal position,



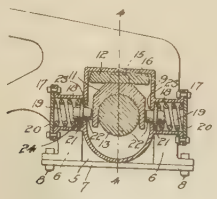
said means also serving to restore the side frame members to normal position upon cessation of said displacement movement.

1,414,959. CAR TRUCK. BYERS W. KADEL, Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y., a Corporation of Delaware. Filed Feb. 1, 1922. Serial No. 533,367. 20 Claims. (Cl. 105—179.)



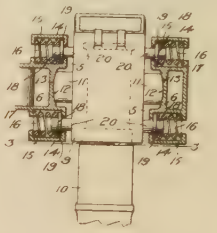
1. In a car truck, the combination with movable side frame members, of means connecting said side frame members, and yieldable means arranged to resist displacement movement of the side frame members from normal position, said yieldable means including a series of associated spring devices adapted to be successively energized for restoring the side frame members to normal position.

1,414,960. CAR TRUCK. BYERS W. KADEL, Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y., a Corporation of Delaware. Filed Feb. 14, 1922. Serial No. 536,454. 19 Claims. (Cl. 105—179.)



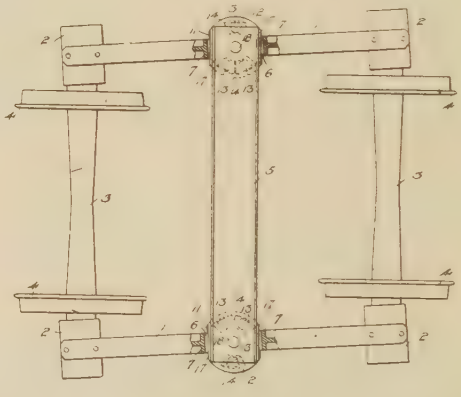
1. In a car truck, the combination with movable side frame members, of means connecting said side frame members adapted to permit relative longitudinal movement of the side frame members from normal position, car axles spanning said side frame members, journal boxes for said axles, each of said journal boxes including a bearing member engaging the respective ends of said axles, and yieldable means operable against each of said bearing members for resisting relative longitudinal displacement of said side frame members from normal position.

1,414,961. CAR TRUCK. BYERS W. KADEL, Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y., a Corporation of Delaware. Filed Feb. 14, 1922. Serial No. 536,455. 22 Claims. (Cl. 105—179.)



1. In a car truck, the combination with movable side frame members, of means connecting said side frame members adapted to permit relative longitudinal movement of the side frame members from normal position, car axle provided with journal boxes supported in said side frame members and movable with said axles, and yieldable means interposed between each journal box and the adjacent side frame member for resisting longitudinal displacement of either side frame member from normal position.

1,414,962. CAR TRUCK. BYERS W. KADEL, Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 22, 1921, Serial No. 439,097. Renewed Mar. 17, 1922. Serial No. 544,684. 18 Claims. (Cl. 105—179.)

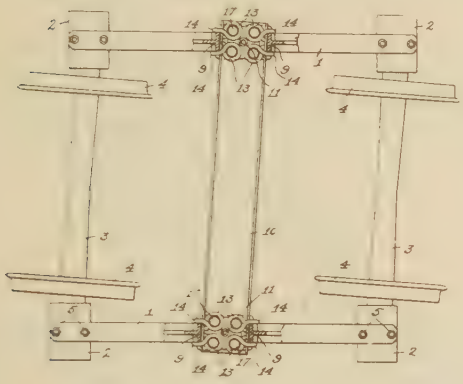


1. In a car truck, the combination with side frame members which are relatively movable longitudinally of the truck, of means for movably connecting said side frame members, and means whereby the load upon said truck operates to restore said side frame members to normal position after they have been displaced from such position by a relative movement longitudinally of the truck.

1,414,963. CAR TRUCK. BYERS W. KADEL, Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 28, 1921, Serial No. 440,594. Renewed Mar. 17, 1922. Serial No. 544,685. 11 Claims. (Cl. 105—179.)

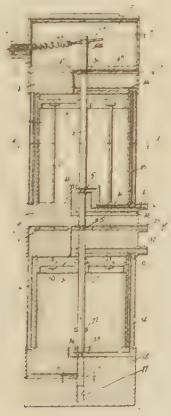
1. In a car truck, the combination with side frame members which are relatively movable longitudinally of

the truck, of a vertically movable bolster which is adapted to angle horizontally with respect to said side frame members, and spring means for vertically supporting said



bolster, said spring means being adapted to be energized by a relative longitudinal displacement of said frame members from normal position to thereby resist said displacement.

1,414,964. GASOLINE METER. RICHARD LOSSING, South Pasadena, Calif., assignor to Lossing Manufacturing Company, Los Angeles, Calif., a Corporation of California. Filed Nov. 27, 1920. Serial No. 426,828. 7 Claims. (Cl. 235—94.)



1. The combination with a liquid supply of measuring means, registering mechanism, and a rotatable flexible connection between said measuring means and said registering mechanism.

1,414,965. COMPOUND-VALVE PUMP OR MOTOR. WALDEMAR F. MAYER, Philadelphia, Pa., assignor to Taylor-Wharton Iron and Steel Company, High Bridge, N. J., a Corporation of New Jersey. Filed Nov. 12, 1919. Serial No. 337,425. 7 Claims. (Cl. 103—85.)

1. A pump having a two chamber casing, a pair of cylinders, opposite acting plungers in the cylinders, and a single rotary valve for connecting the respective

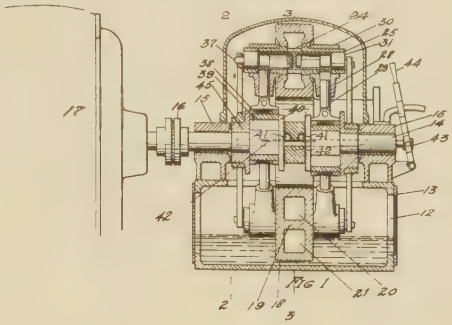
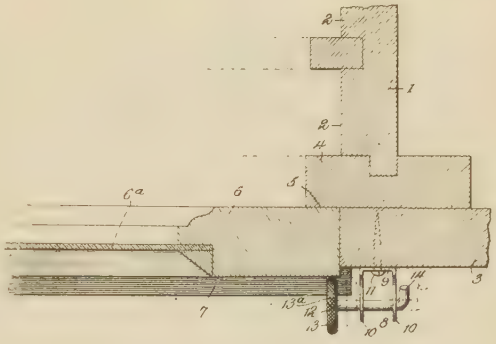


FIG 1

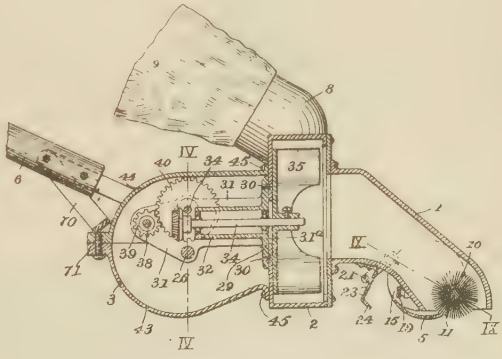
cylinders in succession with the respective chambers of the casing.

1,414,966. STORM SASH AND SCREEN FASTENER. JAMES B. MAYNARD, Superior, Wis. Filed Apr. 13, 1921. Serial No. 460,976. 4 Claims. (Cl. 292—241.)



1. In combination with a bracket provided with journals, a shaft rotatably and slidably mounted in said journals, said shaft being bent at one end in the shape of a spiral and in a plane at right angles to the shaft to form a cam.

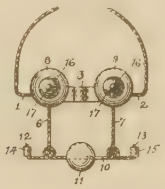
1,414,967. VACUUM CLEANER. JERRY J. MERITHEW, Akron, Ohio. Filed Feb. 24, 1919. Serial No. 278,951. 1 Claim. (Cl. 230—11.)



In a vacuum cleaner, the combination of a vertically disposed fan casing, a frame secured on the rear side of

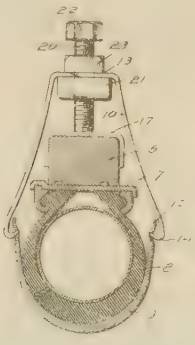
said casing and comprising a tubular portion projecting rearwardly from the fan casing and arms extending parallel with said tubular portion at opposite sides of the same, a fan shaft journaled in bearings at the front and rear ends of said tubular portion of the frame, a motor casing secured to and projecting rearwardly from the fan casing and enclosing said frame, a shaft extending transversely through said casing and the arms of said frame, driving and supporting wheels secured on the ends of said shaft laterally beyond the sides of the casing, and gearing within the casing and disposed between the arms of the frame to operatively connect said shaft with the fan shaft.

1,414,968. DOLL HEAD. WILLIAM H. MITCHELL, Richmond, Ind. Filed July 23, 1920. Serial No. 398,413. 1 Claim. (Cl. 46—40.)



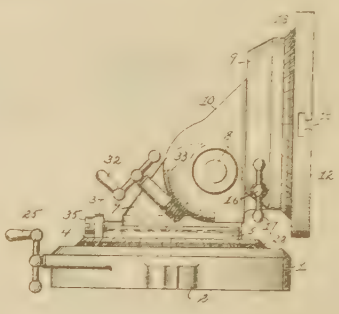
A shell formed as a doll head having eye-apertures therein, prongs projecting inward toward each other from the inside of the shell and terminating on each side of said eye apertures, a frame pivoted between said prongs, upper and lower leaves connected with the frame and having apertures therein, arms pivoted in said apertures of the frame, eye-balls each having a right-angular notch formed in the lower rear portion thereof with the end portions of said frame located in said notches, said arms each having a right-angular forward bend above the respective upper leaves of the frame with the forward ends of said arms rigidly secured in the respective eye-balls, rearward downward and angularly extending projections from said arms, a connecting-bar pivotedly connecting the lower ends of said extensions, and a weight secured to the said connecting bar, all substantially as shown and described.

1,414,969. TIRE-BOOT CLAMP. AARON T. MOORE, Oatman, Ariz. Filed June 16, 1921. Serial No. 478,059. 2 Claims. (Cl. 152—24.)



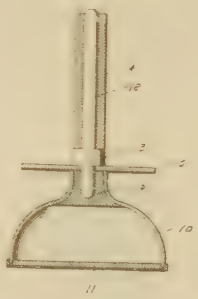
2. A boot holder of the class described comprising a resilient saddle having angularly directed arms on each side thereof, bridging the felly of a wheel, said arms having inwardly bent ends provided with gripping prongs for attachment to a boot, a screw threaded element and movable nut carried thereby adapted to bear against the bridging portion of the saddle, and a locking nut on said threaded element for retaining said saddle in its tensioned position when the boot is tightened on the tire.

1,414,970. ADJUSTABLE ANGLE PLATE. ALEXANDER W. NELSON, Newark, N. J., assignor to Nelson Tool & Machine Company, Incorporated, a Corporation of Virginia. Filed May 10, 1919. Serial No. 296,161. 3 Claims. (Cl. 90—59.)



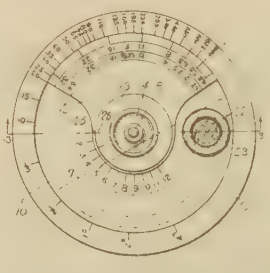
1. A device of the character described, comprising a support, provided with a recessed and beveled annular seat, a base provided with a correspondingly beveled portion rotatively mounted upon the annular seat of said support, a standard slidably secured to the base, a bracket adjustably and pivotally secured to the standard provided with a recessed and beveled annular seat, an angle plate provided with a correspondingly beveled portion rotatively mounted upon the said bracket and means for changing the angular position of said angle plate.

1,414,971. SPOOL HOLDER. FERDINAND H. AHL, Salem, N. J. Filed May 5, 1920. Serial No. 379,130. 2 Claims. (Cl. 242—134.)



1. A holder of the class described having a stem, a plate, a bearing on the stem, adjacent to the plate of greater diameter than the stem, said stem adapted to receive a spool to rest on the bearing as a base, and a filler sleeve of substantially the same diameter as said bearing applicable to the stem to rest on said bearing, whereby a spool of another size may be passed over the sleeve and bearing to rest on the plate.

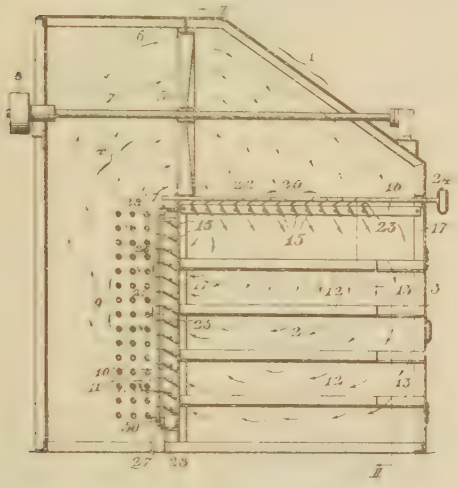
1,414,972. COMPUTING EXPOSURE METER. THOMAS MCG. AIKEN, Pittsburgh, Pa. Filed Aug. 14, 1920. Serial No. 403,478. 19 Claims. (Cl. 235—88.)



1. An exposure meter for use in photography comprising means operated in accordance with direct ob-

servation therethrough for measuring the light value of the subject to be photographed, indicating means operatively connected to the said light measuring means for indicating the correct exposure for the said subject, and means for preliminarily adjusting the said indicating means in accordance with local conditions of use.

1,414,973. DRYING MACHINE. THOMAS ALLSOP and WALTER W. SIBSON, Philadelphia, Pa., assignors to The Philadelphia Drying Machinery Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 14, 1920. Serial No. 403,479. 6 Claims. (Cl. 34—39.)

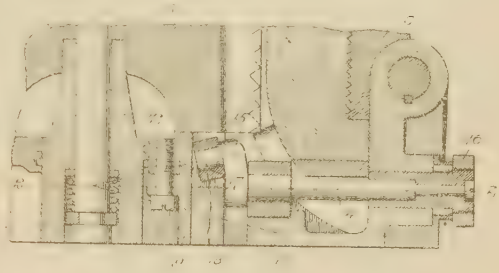


4. A drying machine comprising an enclosure with a compartment therein for the material to be dried, and a passage directly connecting the top of said compartment with a side thereof; means in said compartment for supporting material to be dried in horizontal tiers; means in the top and the side of said compartment connected therewith by the aforesaid passage for controlling and varying the direction of the entering air; a series of adjustable horizontal air-directing and controlling shutters across the top of said compartment and at the side connected therewith by the aforesaid passage; and a fan in the aforesaid passage adjacent the angle between the top and side of said compartment connected thereby for circulating the air through the compartment with return through the passage.

1,414,974. SINGLE-BLADE PLANE. HANS ANDERSON, Oakland, Calif. Filed Nov. 22, 1921. Serial No. 517,074. 2 Claims. (Cl. 145—14.)

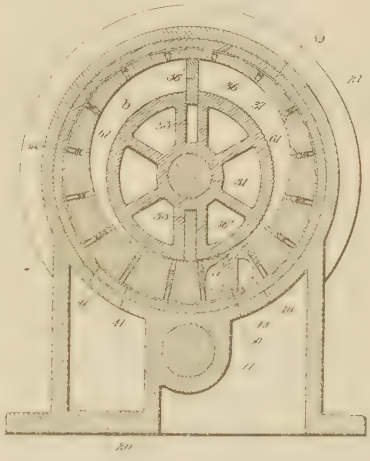
1. In a single blade plane, means for adjustably supporting the blade in an inclined position, comprising a block having a slanting blade engaging surface, a recess in the rear end of the block having a slanting bottom parallel to the block surface with a central hole, a guiding member operatively engaging the undersurface of the blade adapted to ride on the recess bottom having a downward projection extending through the hole, and means supported in the rear wall of the block threadedly engaging the downward projection for adjusting the position of the guiding member.

1,414,975. BREECH MECHANISM. DORSEY F. ASBURY, Washington, D. C. Filed July 13, 1920. Serial No. 395,868. 26 Claims. (Cl. 89—20.)



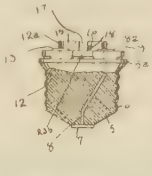
1. In a breech mechanism, a rotatable plug, a pivoted actuating arm, means for pivoting the arm, and plug operating means between the arm and plug including a member whose axis intersects the axis of the plug at all times.

1,414,976. ROTARY ENGINE. BENJAMIN FRANKLIN AUGUSTINE, Buffalo, N. Y. Filed May 6, 1915. Serial No. 26,314. 22 Claims. (Cl. 121—84.)



1. A rotary engine comprising a cylinder, a rotatable carrier in said cylinder, radial pistons mounted on said carrier, end plates fixed to said carrier, rigid yokes connecting the radial pistons, each end plate having a recess on its inner face adapted to house and guide one of said yokes, and fixed eccentrics for each yoke to move the same positively to move the pistons radially on the carrier.

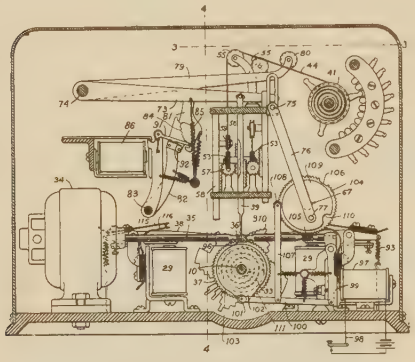
1,414,977. RENEWABLE FUSE. WILFRID A. BRUNELLE, South Hadley Falls, Mass. Filed Jan. 22, 1919. Serial No. 272,530. 1 Claim. (Cl. 200—130.)



A renewable fuse consisting of a body of insulating material having a metallic shell formed with screw threads, a wire extending through the center of the inner end of said body and providing a terminal contact at said inner end, the other end of the wire being extended outwardly of the outer end of said body, a wire

having metallic contact with said shell and extended outwardly of the outer end of said body, means for securing the terminals of a fuse wire to said wires, a partition of insulating material located between said terminals, the head of said body being formed with recesses in its sides, a cap having an annular flange adapted to overlie said head and having a wall provided with indentations adapted to lockingly engage the recesses, said head also being formed with notches, a member disposed across said cap and provided with terminal portions to engage the notches, and means for holding said member locked to said cap.

1,414,978. COMPUTING MACHINE. RALPH W. BUMSTEAD, Brookline, Mass. Filed Aug. 23, 1917. Serial No. 187,765. 21 Claims. (Cl. 235—97.)

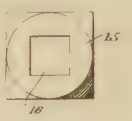


1. In a machine for computing the product of two plural digital factors, a plurality of keys adapted to receive the "set up" of the two factors, a plurality of product-representing members, a propelling mechanism common to all the product-representing members, an arresting device associated with each product-representing member, a plurality of selector units less in number than the product-representing members but adapted to control the latter simultaneously and independently through said arresting devices, a single distributor mechanism adapted in combination with the keys and the selector units to control said arresting devices thereby to arrest the movement of each product-representing member when the latter in passing successively through various product-representing positions reaches a setting position predetermined by the actuation of the keys, and means to indicate or record the sum of the individual products obtained as aforesaid.

2. In a machine for computing the product of two plural digital factors, a plurality of setting elements which may be set to represent the digits of said two factors, a plurality of product-representing members, each constructed to represent in different selected positions the products of any two digits, means whereby said product-representing members may be moved uninterruptedly from their initial to their set positions as selected by said setting elements, thereby causing said product-representing members to indicate simultaneously all the products obtained by multiplying each digit of one of said plural digital factors by all the digits of the other plural digital factor, and means to indicate by a single uninterrupted one-stage operation the total of said individual products.

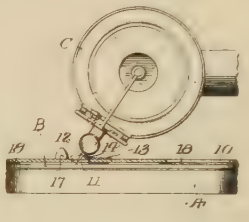
8. In a machine for computing the product of two factors, each of two or more digits, means to effect first a simultaneous and uninterrupted setting movement of a set of members adapted and sufficient to represent all the individual products of each digit of one factor multiplied by each digit of the other factor and then simultaneously to obtain the addition of all the individual products.

1,414,979. CONVERTIBLE BOLT. DOUGLAS GRAND CARTER, Picton, Ontario, Canada. Filed June 9, 1919. Serial No. 302,805. 1 Claim. (Cl. 85—1.)



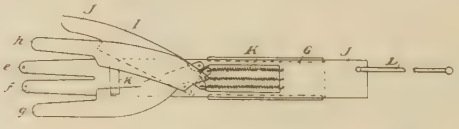
The combination of a carriage bolt having the usual means for preventing rotation thereof and a nut-shaped body having an aperture to fit over said means in interlocking relation thereto and adapted to assume structurally and functionally the position of the head of a machine bolt.

1,414,980. REPEATING ATTACHMENT FOR TALKING MACHINES. EVERETT G. CLEMENTS, Washington, D. C. Filed Feb. 20, 1915. Serial No. 9,753. 4 Claims. (Cl. 274—15.)



1. The combination with a talking machine having a transportable reproducer head, of a member adapted to rotate in a plane parallel to the plane of the record to restore said head to a position to repeat the playing of the record, vibration transmission means carried by said head, said vibration transmission means being so positioned as to extend into the path of travel of said member and adapted to prevent rotation thereof during the playing of the record.

1,414,981. AUTOMOBILE SIGNAL. WESLEY CLINE, Edmonton, Alberta, Canada. Filed Sept. 10, 1921. Serial No. 499,642. 1 Claim. (Cl. 116—50.)

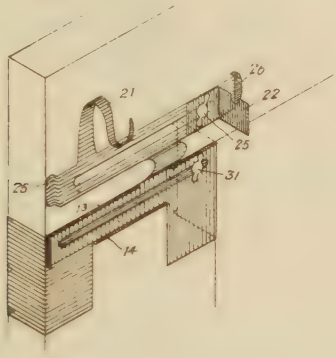


In a vehicle signal, a case and an expanding signal formed of an arm portion and a hand portion the former being formed of a strip of material terminating in two fingers of the hand and of other strips spaced to form finger slots and spring slots, fingers in said slots and springs holding said fingers to their expanded position and a crank operating mechanism adapted to retire said hand in said case and coincidently close in the fingers to their slots.

1,414,982. COMBINATION WINDOW-SHADE AND CURTAIN-HOLDING DEVICE. CLAYTON E. DURHAM and ANDREW J. ROHR, Terre Haute, Ind. Filed July 11, 1921. Serial No. 484,000. 2 Claims. (Cl. 156—24.)

1. A device of the character described comprising a member including a substantially horizontal portion provided with forwardly extending substantially horizontal flanges, said member having a transverse portion provided with an extension arranged at substantially a right angle to the transverse portion, said extension having prongs adapted to enter the material of the window casing, said member further comprising a substantially horizontal strip

arranged above the substantially horizontal portion, an approximately U-shaped member connecting the horizontal strip and horizontal portion, and being adapted to be bent for vertically adjusting the horizontal strip, and an arm extending from the horizontal strip and adapted to support a curtain pole; and a companion member comprising a substantially horizontal portion to be arranged upon

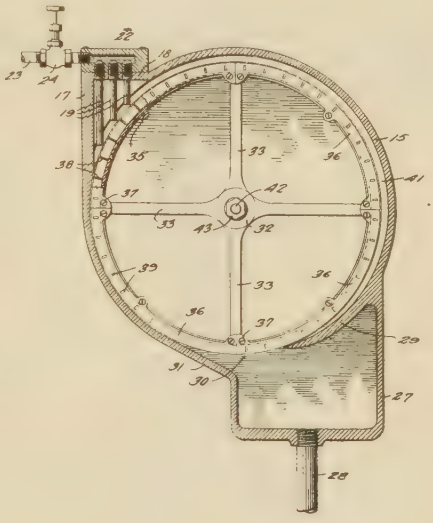


the first named horizontal portion between the flanges thereof, said companion member comprising a transverse portion provided with an extension arranged at substantially a right angle thereto, said extension carrying prongs adapted to enter the material of the window casing, and means to clamp the horizontal portions and the first and second named members together.

1,414,983. VALVE-GRINDING DEVICE. JOE M. HAMILTON, Mount Holly, N. C. Filed Mar. 25, 1921. Serial No. 455,502. 3 Claims. (Cl. 51—29.)

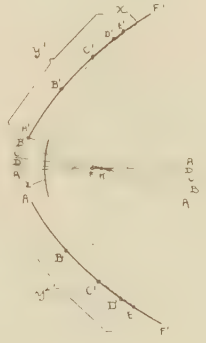
1. A valve grinding device comprising, a frame adapted to be arranged in proximity to the valve and to rest upon the engine, a substantially vertical spindle slidably mounted within the frame and adapted to be moved longitudinally with relation to the frame, a weight mounted upon the upper end of the spindle, a gear mounted upon the spindle within the frame, a substantially vertical operating shaft having a portion thereof rotatably mounted within the frame and extending substantially parallel with the spindle, said operating shaft projecting above the frame and having an operating groove, a gear mounted upon the operating shaft within the frame and being thicker than the first named gear, a handle having a swiveled connection with the upper end of the operating shaft, and a reciprocatory handle slidable upon the upper portion of the operating shaft and carrying an element to enter the operating groove.

1,414,984. TURBINE. HARRY ALFRED HOOD, Quincy, Mass. Filed Mar. 9, 1918. Serial No. 221,495. 14 Claims. (Cl. 253—140.)



1. In a turbine, the combination of a casing having inlet and exhaust chambers at diametrically opposed sides thereof, a detachable cartridge projecting into the inlet and provided with a relatively small perforation in its outer end for controlling the escape of fluid under pressure in a relatively fine stream against the rotor, a rotor mounted in the casing and having radially extending blades in its periphery, and an arcuate vacuum chamber extending between the said exhaust and intake chambers in the side of the casing opposite that which the fluid under pressure is adapted to travel with the rotor, said vacuum chamber communicating with the intake chamber, and the jet of fluid under pressure issuing from said cartridge being adapted to create suction in the intake and vacuum chambers for augmenting the force of impact against said blades in turning the rotor.

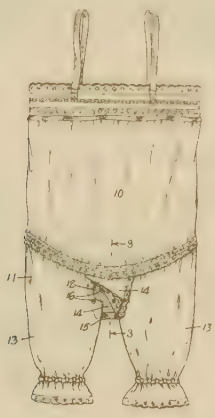
1,414,985. SEARCHLIGHT. GEORGES KLEEFELD, Brussels, Belgium. Filed Dec. 9, 1921. Serial No. 521,267. 3 Claims. (Cl. 240—41.)



1. A headlight for motor vehicles and the like, comprising a lighting source and a reflector having a main paraboloid of revolution and two secondary reflecting surfaces, arranged laterally on either side of the main paraboloid and extending on either side of the main horizontal symmetrical plane of the reflector, the secondary reflecting surfaces being composed of paraboloid sections the axes of which are disposed at angles to the axis of the main para-

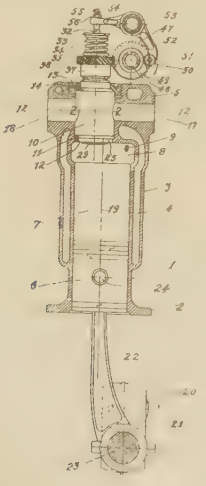
boloid, and at an angle to each other, the axis of the main paraboloid and the axes of the paraboloid sections being situated within the main symmetrical horizontal plane of the reflector.

1,414,986. UNDERGARMENT. NATHAN LIPPMAN, Brooklyn, N. Y. Filed May 26, 1921. Serial No. 472,753. 1 Claim. (Cl. 2—144.)



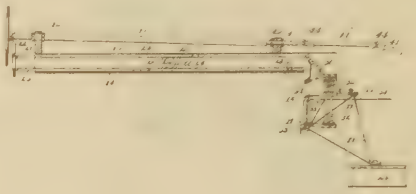
As a new article of manufacture, a woman's undergarment embodying in combination an envelope chemise including front and rear interengageable flaps, and bloomers having a crotch opening at the inner side edges of the leg members, and separable fastening elements provided respectively on the bloomers adjacent the crotch opening and the flaps of the envelope chemise whereby the said flaps constitute means for closing the crotch opening of the bloomers.

1,414,987. HYDROCARBON ENGINE. GEORGE LOEFFLER, New York, and MORRIS J. COHEN, Brooklyn, N. Y. Filed July 21, 1919. Serial No. 312,303. 21 Claims. (Cl. 123—79.)



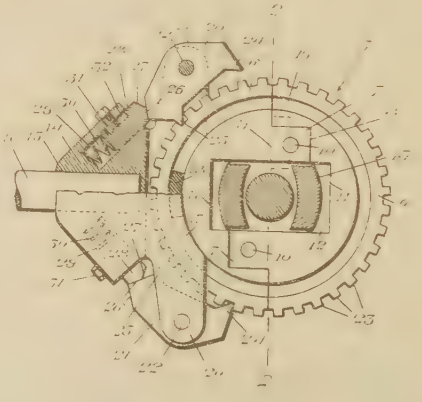
1. In a hydrocarbon engine, a plurality of independent castings arranged in alignment, each of said castings having a plurality of work-cylinders constituting a unit; a crank-shaft below the work-cylinders and common to all of them and extending in the direction of alignment of the cylinders, and the latter being arranged so that the cylinders of each unit will be alternately on opposite sides of the longitudinal axis of the shaft, and a vertical plane passing through said longitudinal axis will cut each cylinder of the aligned units eccentrically to its vertical axis, said shaft having a plurality of cranks; and piston rods connecting the cranks and pistons of the work-cylinders respectively, said rods having their ends coupled to the cranks by offset members, so that the thrust from the pistons to the cranks is in the longitudinal axis of the work-cylinders and eccentric to the longitudinal axis of the crank-shaft.

1,414,988. TRACTOR-CONTROLLING MEANS AND THE LIKE. OTTO L. OAKES, Boise, Idaho. Filed Feb. 28, 1919. Serial No. 279,817. 11 Claims. (Cl. 180—14.)



1. The combination with a machine and tractor for moving the same, of a rack bar attached to said machine; a gear operating on said rack bar; a rack bar attached to said tractor and operating on said gear; a shaft carried by said gear; a second gear on said shaft; a second pair of rack bars slidable longitudinally with respect to said first mentioned rack bars and meshing with opposite sides of said second gear, one of said second pair of rack bars leading to said machine and the other leading to said tractor; means on the machine for operating the said rack bar leading thereto; and controlling means on said tractor operatively connected with the said rack bar leading thereto, substantially as described.

1,414,989. TURNBUCKLE WRENCH. JOHN THORNTON MCCASKEY, Boone, Iowa. Filed Sept. 7, 1920. Serial No. 408,633. 7 Claims. (Cl. 81—60.)



1. A wrench comprising a rotatable annular head having a central opening, an oscillatory member overlapping said head and extending only partially around said head, said head having annular means surrounding said opening for the engagement of said head, and ratchet means between said member and head, said head having a section removable therefrom for placing the head around an object.

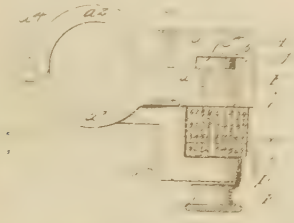
1,414,990. AUTOMATIC PUMP. CHARLIE M. MCFARLAND, Wichita Falls, Tex. Filed Apr. 13, 1920. Serial No. 373,655. 4 Claims. (Cl. 103—67.)

1. In a pump, a plunger, a throttle valve for compressed air to impart working movement to the plunger,

a movable member to control movement of the valve, and a valve to move said member through exhaust of the compressed air from the pump.

4. In a pump, an air chamber, a duct for admitting air under pressure thereto, a plurality of valves controlling the passage of air through said duct, a float operatively connected with one of the valves, an exhaust air duct connected with the air chamber, a plunger operated by the exhaust air and having operative connection with the valve last named, a valve controlling the passage of air from the air chamber to the exhaust duct, one of the valves last named being opened when the valve leading from the chamber to the exhaust duct is closed, a plunger in the air chamber, and operated when air is admitted under pressure through the inlet air duct, a pump cylinder and a plunger operating therein, means operatively connecting said plunger, and means operated by the plunger first named for controlling certain of the valves for cutting off the air supply to the air chamber and opening the exhaust duct.

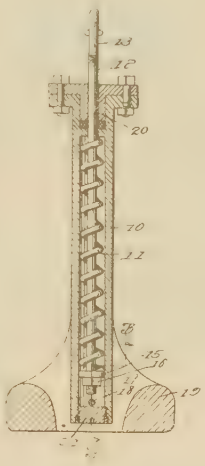
1,414,991. AUTOMOBILE LOCK. GUILLAUME REUSEUS MCKEAGE, Montrose, Pa. Filed July 1, 1919. Serial No. 307,895. 3 Claims. (Cl. 70—129.)



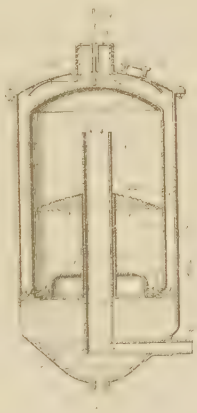
1. A lock for the steering wheel of an automobile comprising a clamp with means for securing it on the steering column, said clamp comprising opposed members between which said column is clamped, one of said members having an L-shaped apertured arm thereon, and also having an aperture therein in alinement with the aperture in said arm, a bolt slidably fitted in said apertures, a yoke slidably fitted between the opposed members of said clamp substantially at right angles to said sliding bolt, and means positioned between the L-shaped arm and the clamp for engaging the sliding bolt to lock the same in a retracted or extended position for locking or unlocking said yoke.

1,414,992. ANCHOR. ERIC J. MEIER, Dorchester, Mass. Filed Aug. 24, 1920. Serial No. 405,597. 1 Claim. (Cl. 114—208.)

An anchor having a tubular shank to which the head is pivotally connected, a cable or chain attaching rod extending axially through the bore of the shank, a coiled spring housed in the shank, said attaching rod being provided at its outer end with an eye for engagement by an anchor chain or cable and at its inner end with a nut for terminal contact with said spring, a stuffing box closing the upper end of the shank and forming a guide for the attaching rod, and a removable cap closing the inner end of the bore of the shank.



1,414,993. AIR FILTER FOR INTERNAL-COMBUSTION ENGINES. ALVIN MILBURN, Keensburg, Ill. Filed Mar. 18, 1921. Serial No. 453,289. 4 Claims. (Cl. 183—9.)

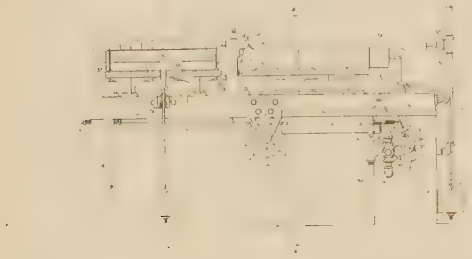


1. In a device of the character described, a stationary vertical casing including a top and a bottom, said top being provided with inlet openings, a stationary outlet pipe having one end projecting upwardly within said stationary casing, and its other end projecting without the casing, a vertically movable casing mounted within said stationary casing and spaced therefrom, said last named casing being provided with a closed top, a bottom wall formed on said movable casing, and a float carried by said bottom wall and spaced from the side walls of said movable casing, said bottom wall being provided with openings arranged between said float and the side walls of said movable casing.

1,414,994. BUTTER-CUTTING MACHINE. CHARLES F. MILLER, Omaha, Nebr. Filed Mar. 12, 1919. Serial No. 282,214. 9 Claims. (Cl. 31—65.)

1. A machine for cutting hard butter into rectangular prints from refrigerated slabs having a thickness sub-

stantially the same as one of the dimension of the prints to be formed and having a length and width substantially equal to multiples of the other dimensions of the prints, comprising a horizontal supporting platform for the slabs, vertical harps arranged at right angles to each other and to the face of the platform, a head movable to push a slab across the platform through one of the harps, a second head movable to push through the second harp the bars formed by the passage of the slab through the first harp, actuating means for moving said heads reciprocatingly, and controlling means for automatically alternating movements of the heads.



3. A machine for cutting hard butter into rectangular prints from slabs refrigerated to a solid condition and having a thickness substantially one of the dimensions of the prints to be formed, comprising a horizontal supporting platform for the slabs, vertical harps arranged at right angles to each other and to the face of the platform, the wires of said harps being secured to provide a cutting length substantially equal to the thickness of the slab, pressure means alternately actuated automatically to force the slab through said harps whereby prints are cut with sharp unbroken edges in condition for wrapping.

5. In a butter cutting machine having a pair of push-blocks movable respectively longitudinally and transversely of a support, a pair of hydraulic cylinders, pistons movable therein and connected operatively with the respective push-blocks, a water supply pipe, a drain pipe, a four-way cock connected with said pipes, a pipe extending directly from said cock to one cylinder, a pipe extending from said cock to the other cylinder, a two-way cock interposed in the latter pipe, means for moving the four-way cock to connect the cylinder-pipes alternately with the supply and drain pipes, and connecting means between said cocks, said connecting means including a lost-motion coupling to enable movement of the two-way cock from closed to open position without corresponding movement of the four-way cock.

6. In a structure as set forth in claim 5, means tending to turn the four-way cock, an escape-wheel connected fixedly with said cock, an oscillatory pallet limiting continued movement of said wheel to a quarter-turn, and means connected with said pallet and actuated by the pistons to release the escape-wheel at the termination of the piston-movements.

7. In a structure as set forth in claim 5, a rocking shaft, means actuated by movement of said shaft in one direction for turning the two-way cock from closed to open position, and means actuated by movement of said rocking-shaft in the other direction for turning the cock-connecting means to first move the four-way cock and take up the lost motion of the coupling device and then turn both cocks simultaneously to positions corresponding with the starting positions thereof.

1,414,995. MATCH-SCRATCHING ATTACHMENT FOR LAMPS. EDWARD A. MILLER, Downs, Kans. Filed July 29, 1921. Serial No. 488,367. 2 Claims. (Cl. 44—48.)

1. A match scratching attachment for lamps consisting of an annular collar adapted for engagement with the neck of a lamp body and having a depending curved

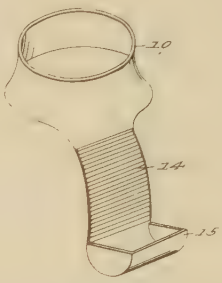
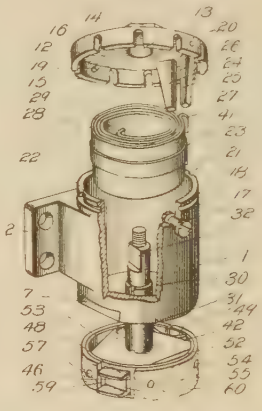


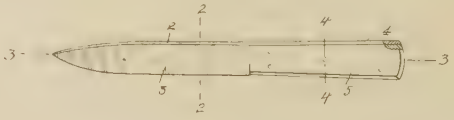
plate provided with a roughened surface to lie adjacent to the surface of the lamp body.

1,414,996. DOOR CHECK AND CLOSER. CHARLES W. PARKER, Kansas City, Mo., assignor to R. E. Kittredge, Edw. M. Lyons, and Mable E. Lyons, Chicago, Ill. Filed July 1, 1921. Serial No. 481,891. 7 Claims. (Cl. 16—65.)



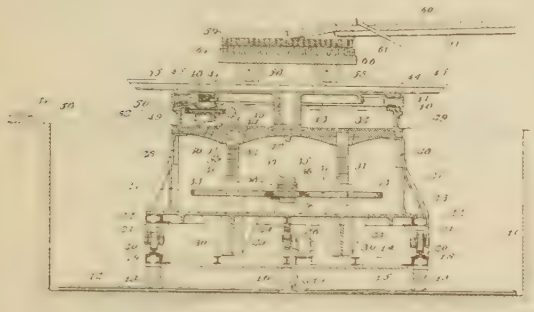
3. In a door check and closer, a cylindrical casing, a spring-actuated door closer in said casing, a split brake band carried thereby, a transversely located, longitudinally movable bolt, means actuated by the bolt for expanding the band, a head on the bolt having a cam groove, and a roller in the groove for imparting longitudinal movement to the bolt and head.

1,414,997. CUTLERY. HENRY JOHN ZINN, Kingston, Pa. Filed Sept. 9, 1920. Serial No. 409,139. 1 Claim. (Cl. 30—9.)



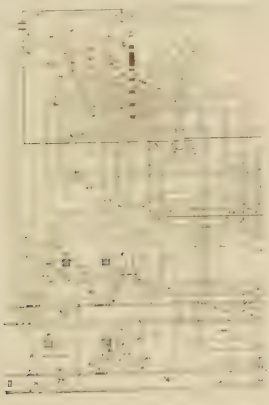
As a new article of manufacture, a cutting blade comprising a relatively thin intermediate portion, an integral strengthening web or bead at one edge of said relatively thin portion, said relatively thin portion having a shank extension at one end, said web extending along the edge of the shank, handle members on the shank below the web at the edge of the web, and side portions on the blade of softer metal than the intermediate portion, secured to the intermediate portion and to the web, said side portions flush with the outer edges of the web and tapering toward the edge of the blade.

1,414,998. BRICK-HACKING MACHINE. WILLIAM H. ALLEN, Momence, Ill., assignor to Raymond C. Penfield, New York, N. Y. Filed Mar. 15, 1921. Serial No. 452,572. 5 Claims. (Cl. 214—6.)



1. In a hacking device for bricks and the like, the combination of means for feeding a plurality of bricks in succession, a turntable, a transfer car carried thereby adjacent the delivery end of said brick feeding means, and means for moving said turntable parallel to the direction of movement of the bricks in said brick feeding means.

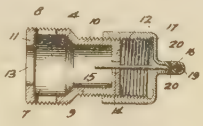
1,414,999. ELECTRIC CONTROL OF RAILWAY TRAINS OR VEHICLES. ARTHUR REGINALD ANGUS, Brighton, England. Filed Sept. 23, 1921. Serial No. 502,682. 22 Claims. (Cl. 246—134.)



1. Track apparatus for the electrical control of trains on joining track portions comprising a source or sources of electricity, traffic-controlling electro-responsive devices constituting a first set connected to rails of the track portions respectively and adapted to be energized by electricity from said source or one or more of said source and to be de-energized when disconnected from such energizing source or sources or when short-circuited therefrom, as by conductively connected wheels of a railway vehicle, an insulation located in each rail portion joining opposite sides of a track portion, and a traffic-controlling electro-responsive device of a second set bridging each said insulation and adapted to be de-energized on the failure of the corresponding insulation, substantially as described.

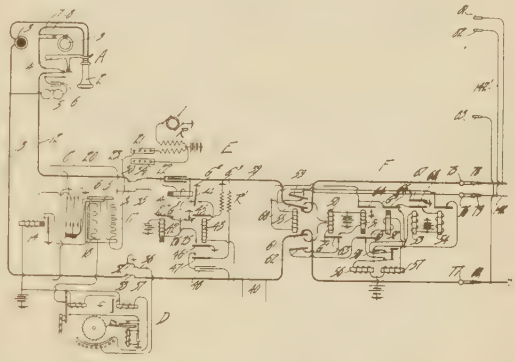
1,415,000. OILING DEVICE FOR REACH RODS. ALFRED B. BREEZE, Cincinnati, Ohio, assignor to The Cincinnati Ball Crank Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Sept. 5, 1919. Serial No. 321,946. 2 Claims. (Cl. 184—48.)

1. In a device of the class described, a tubular reducer plug having its reduced end provided with a rectangularly apertured closure wall, a cap screw threaded upon said reduced end of the plug, having a compressed head, and a U-shaped clip having its boss end centrally compressed



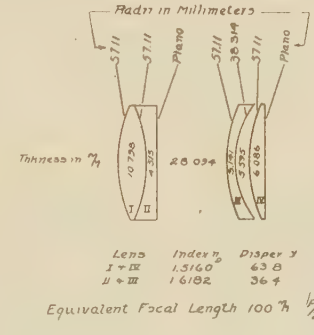
with the cap head and its limbs engaged through the apertures of said plug and closure wall.

1,415,001. SPECIAL SERVICE TRUNK FOR AUTOMATIC TELEPHONE SYSTEMS. TALBOT G. MARTIN, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed July 9, 1917. Serial No. 179,310. 20 Claims. (Cl. 179—27.)



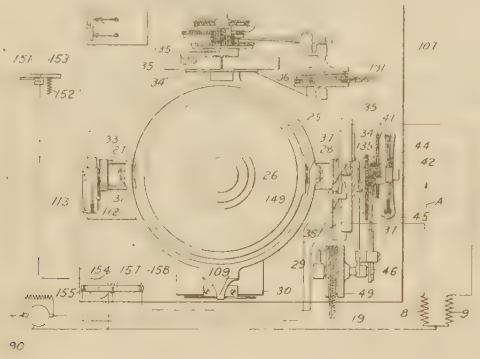
1. In a telephone system comprising a main exchange and a sub-exchange, the combination with subscribers' lines in the sub-exchange classified in accordance with the kind of service to which they are entitled, of an operator's position, means including an automatic switch in each exchange for extending a talking circuit from a calling line in the sub-exchange to the said operator's position, and automatic means controlled by the operator for connecting a distinctive tone to said talking circuit for informing the operator of the class to which the calling subscriber belongs.

1,415,002. PROJECTION LENS. WILLIAM H. REPP, Rochester, N. Y., assignor to Projection Optics Company, Inc., Rochester, N. Y., a Corporation of New York. Filed Sept. 21, 1920. Serial No. 411,772. 2 Claims. (Cl. 88—57.)



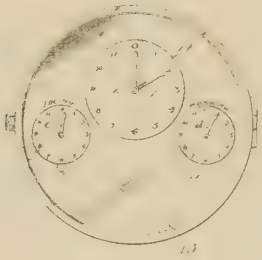
1. A projection lens, having four lenses therein, arranged from front to back as follows; a double convex lens, cemented to a concave plano lens, the two forming the front combination, a convex concavo lens, a short facing and a convex plano lens, the latter two forming the rear combination, the convex surfaces of the lenses all having the same curvature.

1,415,003. AUTOMATIC PILOT FOR AEROPLANES. LAWRENCE B. SPERRY, Brooklyn, N. Y., assignor to The Sperry Gyroscope Company, Brooklyn, N. Y., a Corporation of New York. Filed Mar. 29, 1916. Serial No. 87,434. 19 Claims. (Cl. 244—29.)



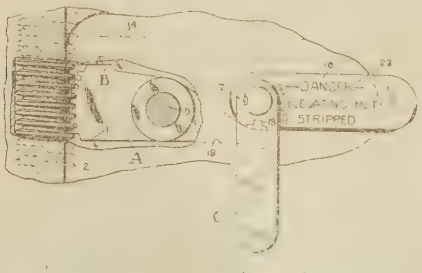
1. In an aeroplane, the combination with a direct manual control device, an automatic governor and a stabilizing plane, of a servo-motor adapted to be controlled from said governor, connections between said plane, said motor and said device, a controller for said motor associated with said device, and means whereby the governor may be rendered inoperative.

1,415,004. TIME INDICATOR FOR AUTOMOBILES. ROBERT WATSON, Silver Spring, Md. Filed Apr. 30, 1919, Serial No. 293,608. Renewed June 10, 1921. Serial No. 476,607. 7 Claims. (Cl. 161—15.5.)



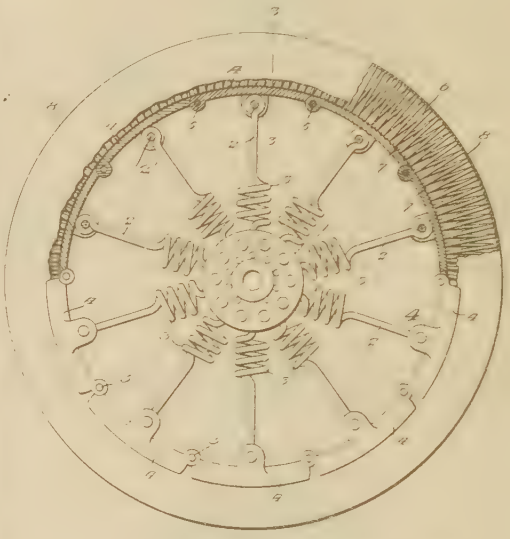
1. The combination with an automobile having an internal combustion driving motor, of means for indicating the idling time of the motor comprising time mechanism, a time indicator operable thereby but normally stopped, means for causing the operation of the indicator while the motor is running and the vehicle is stopped, and means for stopping the indicator when the vehicle starts.

1,415,005. GEAR-LIKE INDICATOR OF STRIPPED THREADS. DAVID C. KLAUSMEYER, Cincinnati, Ohio, assignor to The Cincinnati Bickford Tool Company, Cincinnati, Ohio, a Corporation of Ohio. Filed July 23, 1921. Serial No. 487,067. 7 Claims. (Cl. 116—114.)



5. A safety-device of the nature disclosed combining a member adapted to be elevated; a lifting-screw threaded to said member; an element rotatably carried by said member and also in engagement with the threads of said screw; a stop provided by said member and spaced slightly from the abutment provided by said element; and a signal-giving means connected with said element and adapted to be actuated by a movement of said element insufficient to establish contact between said stop and said abutment.

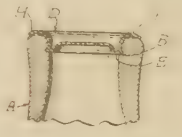
1,415,006. SPRING WHEEL. LUDWICK SNIEREK, Elizabeth, N. J. Filed June 28, 1920. Serial No. 392,168. 1 Claim. (Cl. 152—29.)



A spring wheel comprising a hub, single radial spokes carried thereby and having integral helically coiled portions to form springs closely adjacent said hubs, a rim comprising a plurality of articulated sections, pivotally secured to the outer ends of individual spokes, and an endless tread surrounding said rim.

REISSUES.

15,346. SANITARY CLOSURE FOR BOTTLES. CONRAD W. BORGNER, Lowville, N. Y. Filed Mar. 4, 1922. Serial No. 541,178. Original No. 1,343,760, dated June 15, 1920, Serial No. 279,697, filed Feb. 28, 1919. 5 Claims. (Cl. 215—51.)

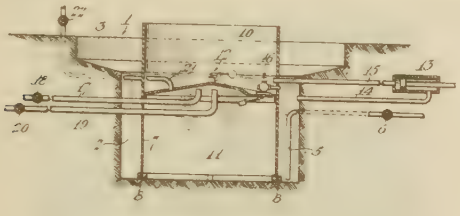


1. A closure for milk and other bottles, comprising a portion with a central annular opening with an upturned edge, which rests upon the seat within the neck of a bottle, an inverted cup section, the marginal edge of which interlocks with said upturned edge and holds the closure to its seat.

15,347. CONTAINER. ALLEN VAN RENSSELAER, Los Angeles, Calif. Filed Nov. 17, 1920. Serial No. 424,797. Original No. 1,285,383, dated Nov. 19, 1918, Serial No. 187,158, filed Aug. 20, 1917. 19 Claims. (Cl. 220—13.)

19. In a container, the combination of a partition dividing the container into an upper chamber and a lower

chamber, said lower chamber being subjected to a variable pressure in the normal operation of the container; a valve for regulating the volume of a liquid carried in said upper chamber to compensate for said changes in pressure in said lower chamber and thus maintain a substan-



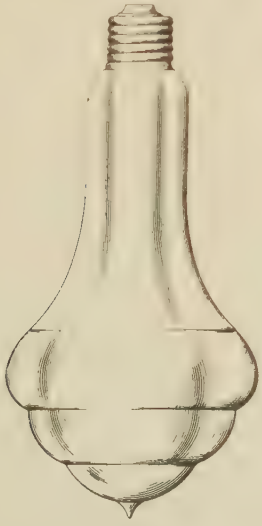
tially constant difference in pressure between the two sides of said partition; a diaphragm member open on one side of the pressure in said lower chamber and on the other side to the pressure of said liquid; and means by which said member actuates said valve.

DESIGNS.

60,924. PEN FOUNTAIN. JOHN LESLIE ADAMS, Chicago, Ill. Filed Jan. 3, 1921. Serial No. 434,815. Term of patent 7 years.

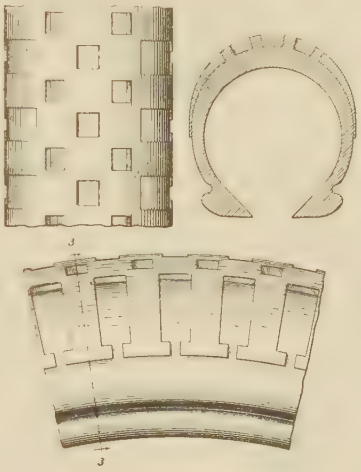
The ornamental design for a pen fountain, as shown.

60,925. LIGHTING BULB. CHARLES A. CAMPBELL, New York, N. Y. Filed Sept. 22, 1921. Serial No. 502,581. Term of patent 7 years.



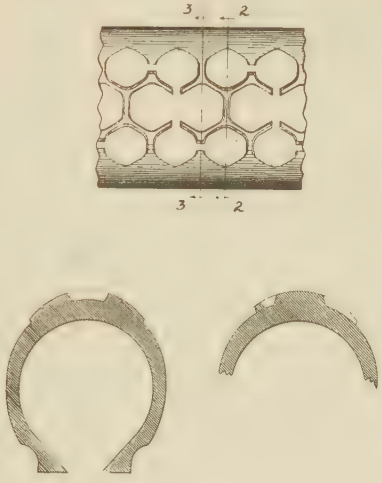
The ornamental design for a lighting bulb, as shown.

60,926. VEHICLE TIRE. ALFRED A. GLIDDEN, Watertown, and ELUE O. FRITCH, Belmont, Mass., assignors to Hood Rubber Company, Watertown, Mass., a Corporation of Massachusetts. Filed June 10, 1921. Serial No. 476,575. Term of patent 7 years.



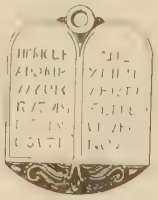
The ornamental design for a vehicle tire as shown.

60,927. TIRE TREAD OR SIMILAR ARTICLE. RALPH W. HUTCHENS, Eau Claire, Wis., and STANLEY P. WOODARD, New York, N. Y., assignors to Stanwood Rubber Company, Newark, N. J., a Corporation of Delaware. Filed Dec. 6, 1919. Serial No. 343,130. Term of patent 3½ years.



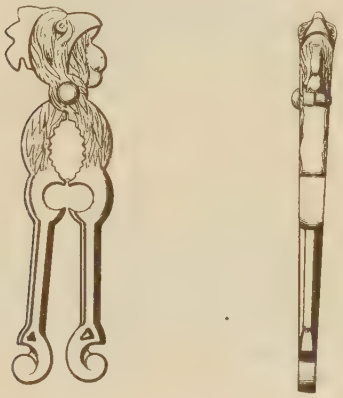
The ornamental design for a tire tread or similar article, as shown.

60,928. CHARM. NATHAN LIEBERFREUND, Passaic, N. J. Filed Nov. 29, 1921. Serial No. 518,702. Term of patent 3½ years.



The ornamental design for a charm as shown.

60,929. COMBINED NUTCRACKER AND BOTTLE OPENER. BERNARD LUTSKY, Brooklyn, N. Y., assignor to Joseph S. Tuttman, New York, N. Y. Filed Aug. 20, 1921. Serial No. 493,991. Term of patent 3½ years.

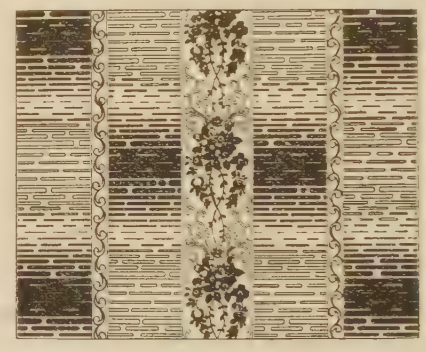


The ornamental design for a combined nutcracker and bottle opener, as shown.

60,930. MATTRESS TICKING OR SIMILAR ARTICLE OF MANUFACTURE. EDWARD G. MEYERS, Passaic, N. J., assignor to Loewenthal Farber Katz Co., Chicago, Ill., a Corporation of Illinois. Filed Dec. 30, 1921. Serial No. 526,062. Term of patent 3½ years.

The ornamental design for mattress ticking or similar article of manufacture, as shown.

60,931. MATTRESS TICKING OR SIMILAR ARTICLE OF MANUFACTURE. EDWARD G. MEYERS, Passaic, N. J., assignor to Loewenthal Farber Katz Co., Chicago, Ill., a Corporation of Illinois. Filed Dec. 30, 1921. Serial No. 526,063. Term of patent 3½ years.



The ornamental design for mattress ticking, or similar article of manufacture, as shown.

TRADE-MARKS

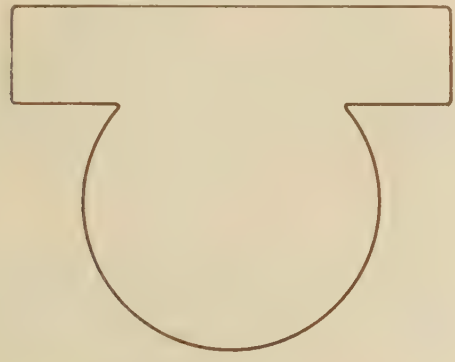
OFFICIAL GAZETTE, MAY 2, 1922.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this publication.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 126,202. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) WISCONSIN PARTS COMPANY, Oshkosh, Wis. Filed Dec. 17, 1919.



Particular description of goods.—Axles.
Claims use since June 1, 1919.

Ser. No. 126,945. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BENJAMIN ROTTENBERG, trading as Baltic Chemical Co., New York, N. Y. Filed Jan. 8, 1920.

RED HILL BRAND

No claim being made to the exclusive use of the word "Brand" apart from the mark as shown in the drawing.

Particular description of goods.—Acetine; Acid—Acetic, Acetic 28% Commercial, Acetic 56% Commercial, Acetic 80% Commercial, Acetic 80% Redistilled, Acetic 80% Pure, Acetic 99–100%, Acetic Anhydrous, Arsenic, Benzoic, Boracic, Boracic Tuscany Brown, Boric, Bromo, Fluoresic, Carbolic Crude, Carbolic Crystals 39–40%, Carbolic Liquid 95–100%, (Cresylic Acid,) Chromic, Citric, Crystals and Powder, Formic 50%–75% 85%, Hydrochloric, (Muriatic Acid,) Gallic, Lactic, (Technical and Edible,) Linoleic, Meta Titanic, Muriatic, Nitric, Oleic, Commercial, (Olive Elain Oil,) Oxalic, Phosphoric, Pyrogallic, Technical and Resublimed, Pyroligneous, Stearic, Double Press Single Triple, Succinic, Sulphuric, Sulphurous, Tannic, Crystal, Powder, Technical and U. S. P., Tartaric, Crystals, Granulated, and Powder; Adeps—Lanæ; Agar-Agar; Alizarine Assistant; Alum—Ammonia Lump, Ground, Powder, Chrome, (Ammonia and Potash,) Chrome, Liquid, (Bichromate of Soda Base,) Lump, Powder, Ground, Nickel, Potash, Lump, Ground, Powder; Amyl—Acetate; Antichlorine, (Hypo. or Bisulphite Soda;) Aniline Dyes; Aniline Salt; Argols; Argols—Crude; Archil; Arsenic—White, Powder and Lumps, Saxony, Red, Silesia, Red and White; Ash—Pearl and Soda; Barytes; Bate—Tanners' Bate, (Lactic Acid;) Benzaldehyde: Benzidine—Base, Sulphate; Benzo—Azurine; Benzol—Dinitro, Nitro; Benzol; Benzyle—Chloride; Beta Naphthol; Binitro—Phenol 90%, Toluol; Black—Fur, Oil Spirit or Water Soluble, Zeta (Sulphur) for Hosiery, Steam; Bleaching Powder, (Chloride Lime;) Blue—Bronze, Chinese, Oil Soluble, Prussian, Soluble Prussian, Water Soluble, Sulphur, Methylene, Basic News, Steam; Bluestone, (Blue Vitrol;) Borax—Lumps, Powder, and Crystals; Brazil Wood; Brimstone—Powdered and Roll; Brown—Sulphur, Khaki, Oil, Spirit or Water Soluble, Sap; Campeche Dry; Camphor; Carbon—Tetrachloride; Carbonate—Crystals, (Crystal Carbonate Soda;) Carmine—Persian Berry; Casein Solvents; Casterol; Cedar—Oil, Spirit or Water Soluble; Charcoal, (Decolorizing Powder;) Cobalt—Linoleate, Fused Resinate; Cochineal; Colors—Aniline, Basic, Burnt Sugar, Direct, Dry, Spirit Soluble, Sulphur, Vegetable, Water Soluble; Copperas, (Sulphate of Iron;) Cream of Tartar; Cudbear; Cutch—Solid, (Box and Bale,) Liquid, Sulphur; Cyanides; Cyanide—of Soda, and Chloride, Potassium; Decolorizing Powder; Dextrine, (White and Yellow Potato;) Dianisidine—Base: Dinitrotoluol; Dinitrophenol; Diphenylaniline; Divi-Divi; Driers—Chemical; Dyestuffs; Dyewoods—Basic and Normal; Epsom Salts; Extract—Archil, (English,) Barberry, Blended, Chestnut, Cutch, Divi-Divi, Enessa, Fustic, (Liquid, Solid, and Crystals,) Gall, Gambier, Hemlock, Hypernic, (Liquid and Solid,) Indigo, (Campeche Extract,) Kubis, Logwood, (Liquid, Crystals, Solid,) Mangrove, (for Tanning and Dyeing,) Meco, Mimosa, Myrabolam, Oak Bark, Persian Berry, (Also Carmine,) Quebracho, Quercitron, (Orange and Lemon Shades,) Liquid and Solid, Spruce, Sumac, (Stainless and Semistainless,) Ulmo, Valonia; Feculose; Flavine; Fluoride Chrome; Formaldehyde—40% Volume; Formaldehyde—Para; Fur Dyes; Fustic Extract, (Liquid, Solid, and Crystals;) Gallacton—50%; Gallocyanine; Gambier; Glauber Salts; Gelose—G. and GS; Gilsonite; Glucose; Glycerine—C. P., Brown, 28° and 30°, Commercial White 28°–30°, Crude, Dynamite, Yellow 28°–30°; Glycerophosphates; Greases; Green Sulphur; Hematine, (Liquid, Cake, Paste, and Crystals;) Hemlock Extract; Hydrogen—Peroxide of, (Commercial or U. S. P.;) Hyposulphite of Soda; Indigo—Synthetic and Natural; Indigo Extract; Indigotine, (Induline;) Isarol; Isordael; Japonica, (Gambier;) Lactarene; Lactoline; Lime—Glycerophosphate, (Same as Calcium,) Resinate, Fused or Precipitated, Sulphate; Linoleates—All Kinds; Melantherine; Metanitraniline; Menthol; Meta—Phenylendiamine Base 50% and 100%, Toluylendiamine Base 50% and 100%; Methyl Violet for Cotton, Wool, and Silk; Moellon—

Degras; Mordants; Myrabolams; Nankin; Naphtha—Solvent; Naphthaline—Crystals, Flakes, and Balls, and Nitrol; Naphthol—Alpha, (Lumps and Powder,) Beta, (Lumps and Powder,) Beta R; Naphthylamine—Alpha, (Lumps and Powder;) Nigrosine—Spirit and Water Soluble; Nitro—Benzol, Guanidine, Naphthaline, Naphthylamine, Toluol; Norgine; Nutgalls; Orange—Oil, Spirit, and Water Soluble; Oxi—Tan; Paranitraniline; Paramidophenol — Chlorhydrate; Paraphenylenedamine—Base; Paris Green; Peroxide—Barium, Hydrogen; Phenol, (Carbolic Acid;) Potash—Bicarbonate, Bichromate Bin Oxalate, Bisilicate, Bisulphate, Black, (Suintash,) Calcined Carbonate, (All Grades,) Hydrated Carbonate, Caustic, (All Grades,) Chlorate (Crystals and Powder,) Chloride, Chromate-Neutral, Cyanide, Meta Bisulphite, Muriate, Nitrate, Oxalate, Perchlorate, Permanganate, (Crystals and Powder,) Prussiate Red, Prussiate Yellow, Silicate, Sulphate, Sulphide, Sulphocyanide, Titanium Oxalate; Potato—Dextrine, Starch; Pyrodine—Base; Pyrolignite, (Iron Liquor;) Pyrolignol; Quebracho—Extract, Wood, and Chips; Quinine—Sulphate; Quercitron—Extract; Red—Oil, Spirit, or Water Soluble; Resorcine; Root Jalap; Sal Ammoniac, (Ammonia Muriate;) Salt—R 100%, Aniline, Antimony, Sorrel, (Bin Oxalate of Potash;) Salts—Dross, Epsom, (Sulphate of Magnesia,) Glauber, (Calc.;) Salts of Tartar; Saltpeter; Selenium, (in Sticks;) Soda—Acetate, Aluminate 27°, Arseniate, Bin Arseniate, Ash, (Alkali 58%,) Benzoate, Bicarbonate, Bichromate, Bisulphate, Bisulphite, Liquid, Powder, and Solid, Carbonate, Carbonate (Monohydrate Crystals,) Caustic Liquid, Powdered and Solid, Chlorate, (Crystals and Powdered,) Crystals, (Sal Soda,) Cyanide, Formiate, Fluoride, Hydrosulphite, Hyposulphite, Naphthionate, Nitrate, Nitrite, Permanganate, Peroxide, Phosphate, (Crystals and Powdered,) Phosphate Tribasic, Prussiate Yellow, Resinate Fused, Sal, Sal Monohydrate, Silicate, Stannate, Sulphate, Sulphide, (30% and 60%,) Succinate, Textile Wyandotte; Solvene, (Tetrachloride of Carbon;) Sorrel—Salts of; Strontium—Carbonate, Nitrate; Sulphur—Flour, Dyes; Sulphur Brown; Sulphur Black; Sulphur Blue; Sulphur Khaki; Sulphur Tan; Sulphur Vat Blues; Sulphur Yellow; Sulphur "Zeta" Black, (for Hosiery;) Sulphonated Oils; Sulphonated Cod Oil; Sulphonated Corn Oil; Tannin; Tartar—Cream of, (Crystals and Powdered,) Emetic, (Crystals and Powdered,) Salts of; Tetrachloride—Acetylene; Tetrachloride—Carbon; Tetrol; Thorium—Nitrate; Titanium—Potassium Oxalate; Toluol; Toluol—Nitro; Toluylenediamine; Toluidine; Toluylenediamine—Meta; Tumeric; Toluidine Ortho; Tragaganth Gum; Trinitrotoluol; Ultramarine—101–102–104–106; Urea; Valonia, (Beard and Cups;) Vanillin; Verdigris—Powder and Granulated; Vinette; Violet—Methyl; Witherite—(Natural Carbonate Barium;) Xylidine; Xylol; Zinc—Ammonium Chloride, Borate, Carbonate, Chloride, Linoleate or Tung Oleate, Sulphate, (White Vitrol.)

Claims use since June, 1916.

Ser. No. 135,993. (CLASS 27. HOROLOGICAL INSTRUMENTS.) ROLAND A. GSELL, New York, N. Y. Filed Aug. 11, 1920.

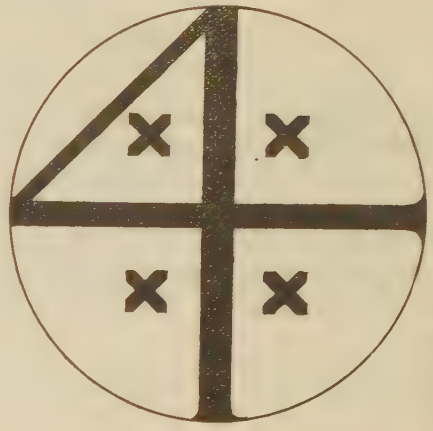
Olympic

The diagonal lines shown in the drawing indicate shading only.

Particular description of goods.—Watches, Watchcases, Watch Movements, and Parts Thereof.

Claims use since Jan. 1, 1920.

Ser. No. 136,437. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN B. SHENK, Philadelphia, Pa. Filed Aug. 24, 1920.



Particular description of goods.—Tooth Wash, Benzo-Glycerine Skin Lotion, Hair Tonic, Antipain Liniment, Blood and Nerve Tablets, Corn Medicine, Cough Medicine, Diarrhoea Medicine, Eczema Ointment, Female Regulator, Liver and Stomach Pills, Kidney and Bladder Medicine, Headache Powders, Neuralgia Tablets, Worm Syrup, Toothache Drops, Blood Purifier and Tonic, and Pile Medicine.

Claims use since Apr. 23, 1915.

Ser. No. 137,771. (CLASS 27. HOROLOGICAL INSTRUMENTS.) FABRIQUE D'HORLOGERIE DE FONTAINEMELON S. A., Fontainemelon, Switzerland. Filed Sept. 30, 1920. Under ten-year proviso.

FONTAINEMELON

The trade-mark as shown in the accompanying drawing consists of an apple pierced by an arrow, beneath which is placed the word "Fontainemelon."

Particular description of goods.—Watch Blanks—That is, the Plates and Bridges Forming the Watch Casings and the Unfinished Gears, (Stamped Wheels and Pinions.)

Claims use since beginning of the year 1870.

Ser. No. 137,772. (CLASS 27. HOROLOGICAL INSTRUMENTS.) FABRIQUE D'HORLOGERIE DE FONTAINEMELON, S. A., Fontainemelon, Switzerland. Filed Sept. 30, 1920.

The trade-mark as shown in accompanying drawing consists of an apple pierced by an arrow.

Particular description of goods.—Watch Blanks—That is, the Plates and Bridges Forming the Watch Casings and the Unfinished Gears, (Stamped Wheels and Pinions.)

Claims use since beginning of year 1870.

Ser. No. 137,922. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) DERWENT MILLS LIMITED, Matlock Borough, England. Filed Oct. 5, 1920.

FURIDA

Particular description of goods.—Woven, Knitted, and Other Cloths and Stuffs of Wool, Worsted, or Hair.
Claims use since July, 1917.

Ser. No. 139,682. (CLASS 15. OILS AND GREASES.) STANDARD OIL COMPANY, San Francisco, Calif. Filed Nov. 15, 1920.

ORONITE

Particular description of goods.—Axle Grease, Gas-Engine-Lubricating Oil, Cylinder Oil, Cup Grease # 3½, Thread-Cutting Oil, Household Lubricant, 123–125 Refined Paraffine Wax, Engine Lubricating Oil, Carriage-Axle Oil, Kerosene, Gasoline, Fuel Oil, Slab Oil—Confectioners, Crystal Oil, and Petroleum Grease Used for Technical Purposes.
Claims use since August, 1920.

Ser. No. 140,026. (CLASS 2. RECEPTACLES.) THE FRUIT AND PRODUCE EXCHANGE OF GREAT BRITAIN, LIMITED, London, England. Filed Nov. 23, 1920.

F.
P. E.

No claim being made to the exclusive right to the use of the letters "F. P. E."
Particular description of goods.—Sacks Made of Textile Material, Wooden Cases, Boxes, and Fruit and Vegetable Crates, Punnets, Baskets, and Tin Cans for Containing Articles of Food.
Claims use since June, 1920.

Ser. No. 140,385. (CLASS 15. OILS AND GREASES.) HADDOCK, PARKER & CO., Liverpool, England. Filed Nov. 29, 1920.

HAPCO

Particular description of goods.—Candles and Illuminating, Heating and Lubricating Oils.
Claims use since Aug. 11, 1920.

Ser. No. 140,929. (CLASS 2. RECEPTACLES.) E. I. DU PONT DE NEMOURS & COMPANY, Wilmington, Del. Filed Dec. 11, 1920.

EBOTONE

Particular description of goods.—Toilet Receptacles Comprising Puff Boxes, Soap Boxes, Hair Receptacles, Talcum-Powder Boxes, Cream Boxes, Toothbrush Cylinders, and Tooth-Paste-Tube Receptacles.
Claims use since Nov. 5, 1919.

Ser. No. 142,403. (CLASS 28. JEWELRY AND PRECIOUS METAL WARE.) OVINGTON BROS. COMPANY, New York, N. Y. Filed Jan. 18, 1921. Under ten-year proviso.

OVINGTON'S

Particular description of goods.—Scarf Pins, Watch Chains, Cuff Links; Jewelry for Personal Wear, Not Including Watches; Platters and Plates Made of Precious Metal, Sheffield Ware; Vases, Bowls, Platters, and Plaques of Enamel Ware Ornamented with Precious Metal, Not Including Ware Made of Enameled Steel; Table Knives, Forks, and Spoons of Precious Metals for Household Use, Match Boxes of Precious Metals, Cigar and Cigarette Holders of Precious Metals, Cigar and Cigarette Cases of Precious Metals, Humidors and Ash Trays of Precious Metals, Candlesticks and Candelabra of Precious Metals, Inkstands of Precious Metals, Pen Points of Precious Metals, Penholders of Precious Metals, Pen Stands and Penracks of Precious Metals, Desk Sets of Precious Metals, Bookmarks of Precious Metals, Letter Openers of Precious Metals, Paper Weights and Paper Cutters of Precious Metals, Fountain Pens and Pencils of Precious Metals.
Claims use since Jan. 1, 1895.

Ser. No. 142,667. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PACIFIC MILLS, Lawrence and Boston, Mass. Filed Jan. 22, 1921.

ROCKLAND

Particular description of goods.—Cotton Piece Goods.
Claims use since Feb. 8, 1917.

Ser. No. 142,700. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) ELECTRICAL ENGINEERS EQUIPMENT COMPANY, Chicago, Ill. Filed Jan. 24, 1921.

No claim is made to the address "Chicago, U. S. A." apart from the other features of the mark. The vertical lines of the large script "E" are used as shade lines and do not indicate color.

Particular description of goods.—Disconnecting Switches, Lightning Arresters, and Choke Coils.

Claims use since Dec. 1, 1917.

Ser. No. 142,847. (CLASS 27. HOROLOGICAL INSTRUMENTS.) KIENZLE UHRENFABRIKEN KOMMANDITGESELLSCHAFT, Schwenningen on Neckar, Germany. Filed Jan. 27, 1921.

TAM-TAM

Particular description of goods.—Alarm Clocks, Alarm Watches, and Watches.

Claims use since September, 1920.

Ser. No. 143,650. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) JOSEPH RABINOVITZ, trading as Modern Light Supply Company, Philadelphia, Pa. Filed Feb. 16, 1921.

Applicant disclaims the words "Trade-Mark Reg." apart from the mark shown in the drawing.

Particular description of goods.—Electrical Lighting Fixtures and Supplies—Namely, Wire, Porcelain Goods, Knobs, and Tubes.

Claims use since Nov. 1, 1920.

Ser. No. 144,007. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE UNITED STATES DENTAL MANUFACTURING CO., Cleveland, Ohio. Filed Feb. 24, 1921.

Champion

Particular description of goods.—Dental Tools—Namely, Burs, Broaches, Mandrels, Revolving Bur Cases, Broach Holders, Hypodermic Needles, Dental-Handle-Cutting Instruments and Nerve-Canal Instruments.

Claims use since about September, 1895.

Ser. No. 144,108. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) SUNNY LINE APPLIANCES, INC., Detroit, Mich. Filed Feb. 26, 1921.

Sunnysuds

Particular description of goods.—Laundry Washing Machines.

Claims use since Jan. 4, 1921.

Ser. No. 144,668. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) DETROIT TWIST DRILL COMPANY, Detroit, Mich. Filed Mar. 12, 1921. Under section 9 of the Act of Mar. 19, 1920.

Detroit

Particular description of goods.—Milling Reamers and Cutters.

Claims use since Jan. 1, 1919.

Ser. No. 145,218. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN M. KAPPUS, trading as United Service Distributors, Cleveland, Ohio. Filed Mar. 25, 1921.

MELLOW-LAX

The trade-mark consists of the expression "Mellow-Lax."

Particular description of goods.—Laxative Tablets.

Claims use since Mar. 22, 1921.

Ser. No. 145,245. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE UNITED STATES DENTAL MANUFACTURING CO., Cleveland, Ohio. Filed Mar. 25, 1921.

Particular description of goods.—Dental Tools—Namely, Burs, Broaches, Mandrels, Dental Vulcanizers, Flask Presses, Dental Engines, Duplex Springs, Bur Gauges, Broach Holders, Root-Canal Instruments, and Hypodermic Needles.

Claims use since about January, 1910.

Ser. No. 145,331. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GIEBELER & GOLDMAN, Merced, Calif. Filed Mar. 28, 1921.

Particular description of goods.—Figs Dried, Canned, Green, and Preserved.

Claims use since Sept. 20, 1920.

Ser. No. 145,860. (CLASS 27. HOROLOGICAL INSTRUMENTS.) ADOLPHE SCHWOB, INC., New York, N. Y. Filed Apr. 7, 1921.

Particular description of goods.—Watches and Watch Movements, Dials, and Cases.

Claims use since Mar. 21, 1921.

Ser. No. 145,885. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) ELEKTRIZITÄTSGESELLSCHAFT SANITAS MIT BESCHRANKTER HAFTUNG, Berlin, Germany. Filed Apr. 8, 1921.

Blo

Particular description of goods.—Electric Hot-Air Baths, Electrical Massage Device and Electric Hot-Air Douches.

Claims use since Oct. 18, 1911.

Ser. No. 146,163. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHEMISCHE FABRIK GRIESHEIM-ELEKTRON, Frankfort-on-the-Main, Germany. Filed Apr. 14, 1921.

Caporit

The trade-mark consists of the arbitrary or fanciful word "Caporit."

Particular description of goods.—Preparations Consisting in Calcium Hypochlorite or Containing Calcium Hypochlorite.

Claims use since Jan. 23, 1919.

Ser. No. 146,955. (CLASS 2. RECEPTACLES.) THE CONTAINER COMPANY, Toledo, Ohio. Filed Apr. 29, 1921.

STAPAK

Particular description of goods.—Fiber Pails, Drums, and Cheese Boxes and Fiber Containers for Shipping Commodities.

Claims use since Apr. 21, 1921.

Ser. No. 146,996. (CLASS 17. TOBACCO PRODUCTS.) ESTATE OF JOSEPH J. SCHAEFER, late of Dayton, Ohio. Filed Apr. 29, 1921.

Burlington Route

Particular description of goods.—Cigars.

Claims use since Sept. 8, 1903.

Ser. No. 147,026. (CLASS 37. PAPER AND STATIONERY.) INTER-COLLEGIATE PRESS, Kansas City, Mo. Filed Apr. 30, 1921.

HEART OF AMERICA

Particular description of goods.—Writing Paper.

Claims use since Mar. 14, 1921.

Ser. No. 148,018. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) COMBUSTINWERK EULITZ & Co., Fahrbrucke, Germany. Filed May 21, 1921.

COMBUSTIN

Particular description of goods.—Salves and Ointments, (Medicated,) Particularly Applicable for the Treatment of Burns, Cracked Skin Rhagades Especially Due to Frost, Wet Eczema, Ulcus Cruris et Pedum, Intertrigo, Sore Skin, (Especially Infantile,) and Epidermal Defects.

Claims use since July 1, 1906.

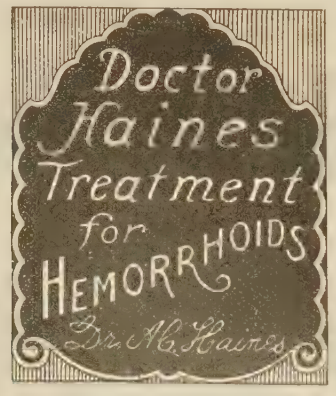
Ser. No. 148,102. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) GUSTAV F. ZIEGLER, trading as The Climax Polish Company, St. Louis, Mo. Filed May 23, 1921.

CLIMAX

Particular description of goods.—Liquid Cleanser and Polish for Pianos, Organs, Furniture, Automobiles, and the Like.

Claims use since about July, 1905.

Ser. No. 148,287. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DR. A. C. HAINES, Columbus, Ohio. Filed May 26, 1921.



The essential feature of the trade-mark for which registration is sought is the name "Dr. A. C. Haines," and all other matter appearing on the drawing and labels furnished is hereby disclaimed.

Particular description of goods.—Medicinal Preparations Used in the Treatment of Hemorrhoids.

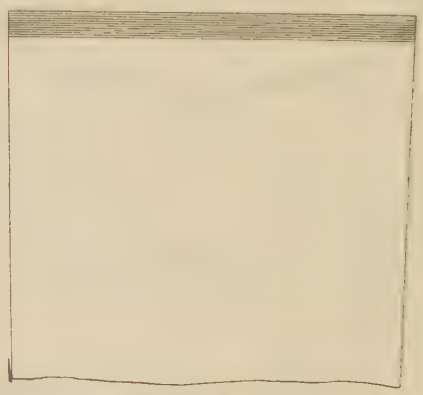
Claims use since January, 1891.

Ser. No. 148,622. (CLASS 39. CLOTHING.) A. STEIN & COMPANY, Chicago, Ill. Filed June 3, 1921.

Particular description of goods.—Baby Pants.

Claims use since July 1, 1912.

Ser. No. 149,349. (CLASS 39. CLOTHING.) PROPPER SILK HOSIERY MILLS, INC., New York, N. Y. Filed June 18, 1921.



Trade-mark comprises a blue band woven integrally with and around the top of the stocking.

Particular description of goods.—Women's Hosiery of Silk or Cotton or Combinations of the Same.

Claims use since September, 1919.

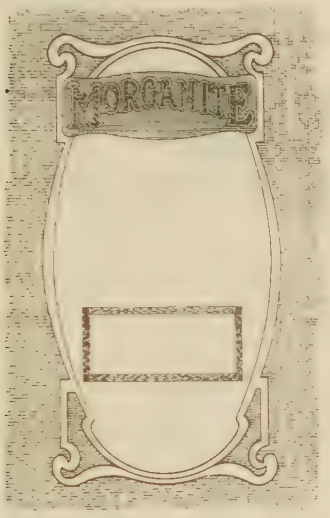
Ser. No. 149,533. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) A. AREND DRUG CO., Chicago, Ill. Filed June 23, 1921.

The shading on the drawing is intended to indicate the color red.

Particular description of goods.—Medicinal Preparation for the Treatment of the Nerves, Stomach, Liver, Kidneys, Blood, and Catarrhal Affections.

Claims use since 1872.

Ser. No. 149,920. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE MORGAN COMPANY, Vincennes, Ind., and Peoria, Ill. Filed July 1, 1921.

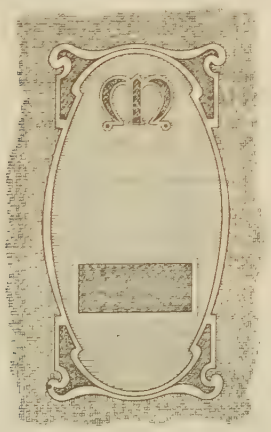


The lines in the scroll forming the background for "Morganite" designate the color blue, while the lines in the corners of the scroll, the rectangular outline thereof, and the background for the scroll indicate the color yellow.

Particular description of goods.—Varnishes, Finishes Which are in the Nature of Enamels, Lacquers, Flat Wall Finish, Paint Enamels.

Claims use since Oct. 1, 1920.

Ser. No. 149,921. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE MORGAN COMPANY, Vincennes, Ind., and Peoria, Ill. Filed July 1, 1921.

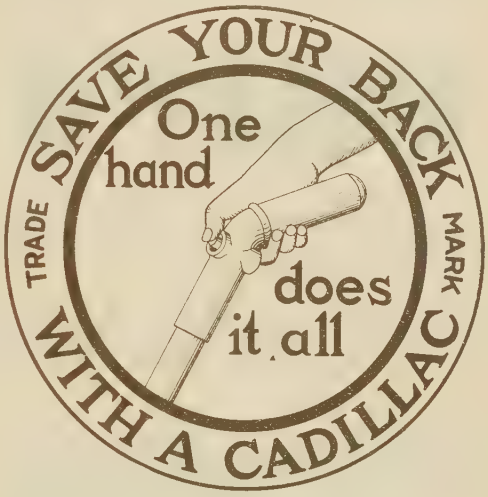


The lines in the body of the scroll designate the color blue, while the lines in the letter "M," the corners of the scroll, and the background for the scroll indicate the color yellow.

Particular description of goods.—Varnishes, Finishes Which are in the Nature of Enamels, Lacquers, Flat Wall Finish, Paint Enamels.

Claims use since Oct. 1, 1920.

Ser. No. 150,657. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) CLEMENTS MFG. CO., Chicago, Ill. Filed July 20, 1921.



No claim is made to the words "Trade Mark" or to the phrase "One hand does it all" or to the specific representation of the goods apart from the mark shown.

Particular description of goods.—Electric Suction Sweepers.

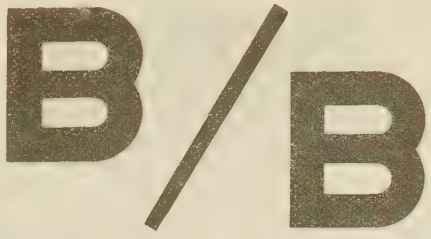
Claims use since September, 1920.

Ser. No. 151,649. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) ABEL BROS. & CO. INC., New York, N. Y. Filed Aug. 11, 1921.

Particular description of goods.—Lapel Buttons, Shrine Buttons, and Link Buttons of Precious Metal; Shirt Studs, Lockets, Lorgnettes, Watch Bracelets Not Including Watches, Diamond Garters, Brooches, Bar Pins, Scarf Pins, Lavallières, Finger Rings, Earrings, Bracelets, Wedding Rings, Neck Chains, Tiaras, Waldemars, Sautoirs, and Clasps.

Claims use since 1900.

Ser. No. 151,780. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) BERG BROS. MFG. COMPANY, Chicago, Ill. Filed Aug. 15, 1921.



Particular description of goods.—Spark Timers for Internal-Combustion Engines.

Claims use since Oct. 15, 1920.

Ser. No. 152,711. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOOSE WILES BISCUIT COMPANY, Long Island City, N. Y. Filed Sept. 8, 1921.

MOLLY'O

Particular description of goods.—Cakes, Wafers, Crackers, and Biscuits.
Claims use since Aug. 24, 1921.

Ser. No. 152,724. (CLASS 39. CLOTHING.) HENRY SONNEBORN & CO. INC., Baltimore, Md. Filed Sept. 8, 1921.

Styleplus

Particular description of goods.—Men's and Boys' Hats and Caps.
Claims use since May 4, 1912.

Ser. No. 152,755. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DANIEL JAQUET, trading as Parfums Fontanis, Paris, France. Filed Sept. 9, 1921.

Fleurs de Bagdad

The trade-mark consists of the words "Fleurs De Bagdad."
Particular description of goods.—Toilet Preparations—Namely, Perfumery Extract, Toilet Water, Face Powder, Sachet Powder, Skin Lotion Vegetale, Eau de Cologne, Hair Dressing, Talcum Powder, Eau de Dentifrice, and Rouge.
Claims use since Apr. 1, 1920.

Ser. No. 152,800. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) CARLE C. CONWAY, EARLE E. CONWAY, and THEODORE P. BROWN, trustees, trading as Hallett & Davis Piano Co., Boston, Mass. Filed Sept. 10, 1921.

Brown & Simpson
EST. 1889.
WORCESTER, MASS.

The words "Worcester, Mass." appearing with the trade-mark are not claimed as part of said mark.
Particular description of goods.—Pianos.
Claims use since 1889.

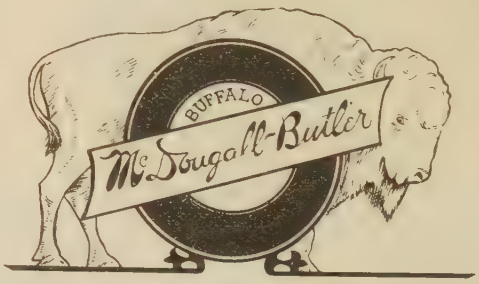
Ser. No. 152,806. (CLASS 39. CLOTHING.) HARRIS W. ROTHSTEIN, trading as H. W. Rothstein & Co., Baltimore, Md. Filed Sept. 10, 1921.

The word "Clothes" is disclaimed apart from the mark shown in the drawing.
Particular description of goods.—Boys' Suits.
Claims use since Jan. 10, 1921.

Ser. No. 152,807. (CLASS 39. CLOTHING.) HARRIS W. ROTHSTEIN, trading as H. W. Rothstein & Co., Baltimore, Md. Filed Sept. 10, 1921.

The word "Brand" is disclaimed apart from the mark shown in the drawing.
Particular description of goods.—Men's Suits.
Claims use since July 15, 1901.

Ser. No. 152,853. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) MCDOUGALL-BUTLER CO. INC., Buffalo, N. Y. Filed Sept. 12, 1921.



Particular description of goods.—Dry, Ready-Mixed, and Paste Paints; Enamel Undercoaters, Liquid Fillers, Paste Fillers, Oil Stains, Shingle Stains, Graphite Paints, Ground

Colors, Colors in Oil, Primers, Enamel Paints, Japan Varnish, Blackboard Slating Paint, Japans, Aluminum Paints, Coach and Car Colors in Japan, Varnishes, Rough-Stuffs, Varnish Foods; Finishes—i. e., Varnish Products; Liquid Driers, Liquid Japans; Sealers—viz, Varnish Size; Distemper Colors—viz, Pigments for Tinting Calcimine.

Claims use since July 1, 1921.

Ser. No. 153,057. (CLASS 39. CLOTHING.) LOUIS SCHILLER, Philadelphia, Pa. Filed Sept. 17, 1921.

Particular description of goods.—Neckties and Scarfs.

Claims use since March, 1920.

Ser. No. 153,252. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) KOHN, ADLER & CO., Philadelphia, Pa. Filed Sept. 23, 1921.

No claim is made for the word "Brand" or the word "Philadelphia" per se or apart from the mark shown.

Particular description of goods.—Silks, Velvets, and Ribbons, All in the Piece.

Claims use since about Jan. 1, 1905.

Ser. No. 153,428. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) RODERICK S. BURLINGAME, trading as Burlingame Manufacturing Company, Syracuse, N. Y. Filed Sept. 28, 1921.

VACCUP

Particular description of goods.—Clothes-Washing Machine.

Claims use since Oct. 1, 1919.

Ser. No. 153,547. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) EDWARD A. EVERETT, trading as Railroad Accessories Corporation, Long Island City, N. Y. Filed Sept. 30, 1921.

HYSTATIC
LIGHTNING ARRESTERS

Applicant hereby disclaims all right to the use of "lightning arresters" except when associated with the mark as shown.

Particular description of goods.—Lightning Arresters.

Claims use since Sept. 26, 1921.

Ser. No. 153,864. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE AMERICAN RADIO SALES AND SERVICE COMPANY, Mansfield, Ohio. Filed Oct. 8, 1921.

ATLAS

The words "Radio Products Known Around the World" are hereby disclaimed apart from the mark shown.

Particular description of goods.—Appliances for Radio Mechanism, Consisting of Amplifying Transformers, Modulation Transformers, C. W. Transformers, Power Transformers, Filament-Heating Transformers, C. W. Choke Coils, Tuning Inductances, Couplers, Panel Switches, Variable Grid Leaks, Detectors, Amplifiers, Regenerative Tuners, Circuit Drivers, Oscillation Transformers, Rheostats, Cabinets, and Condensers.

Claims use since Sept. 1, 1921.

Ser. No. 154,034. (CLASS 39. CLOTHING.) ALEATHA H. LOCKWOOD, Hartford, Conn. Filed Oct. 12, 1921.

Lockatomik

Particular description of goods.—Corsets, Hose Supporters, Abdominal Belts, Brassières, Spine Braces, Maternity Dresses, and Underskirts.
Claims use since Oct. 1, 1921.

Ser. No. 154,087. (CLASS 28. JEWELRY AND PRECIOUS METAL WARE.) MISSION BEAD COMPANY, Los Angeles, Calif. Filed Oct. 14, 1921.

MISSION

Particular description of goods.—Bead Necklaces.
Claims use since May, 1914.

Ser. No. 154,291. (CLASS 37. PAPER AND STATIONERY.) CHARLES E. WEYAND & CO. INC., New York, N. Y. Filed Oct. 18, 1921.

Fancies
A Color for Every Whim

No claim being made to the words "A Color for Every Whim."
Particular description of goods.—Writing Paper and Envelopes.
Claims use since July 1, 1921.

Ser. No. 154,339. (CLASS 15. OILS AND GREASES.) UNION OIL COMPANY OF CALIFORNIA, Los Angeles, Calif. Filed Oct. 19, 1921.

Particular description of goods.—Road Oils.
Claims use since Apr. 1, 1914.

Ser. No. 154,437. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) DETROIT WASHING MACHINE CORPORATION, Detroit, Mich. Filed Oct. 22, 1921.

Abso-Clean

Particular description of goods.—Laundry Washing Machines.
Claims use since May 1, 1921.

Ser. No. 154,473. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) BRIDGEPORT BRASS COMPANY, Bridgeport, Conn. Filed Oct. 24, 1921.

Ledrite

Particular description of goods.—Brass Rods.
Claims use since on or about Sept. 23, 1921.

Ser. No. 154,921. (CLASS 2. RECEPTACLES.) THE EVER READY GARMENT BAG CO., New York, N. Y. Filed Nov. 2, 1921.

CEDARIZED
EVER
GARMENT BAG
READY
SIDE OPENING

No claim being made to the exclusive use of the words shown in the drawing apart from the mark as shown therein.

Particular description of goods.—Moth and Dust Proof Garment Bags.

Claims use since Oct. 12, 1921.

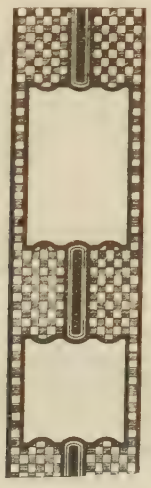
Ser. No. 154,935. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) LESTER E. SCOTT, trading as L. E. Scott Co., Southington, Conn. Filed Nov. 2, 1921.

SELCO

Particular description of goods.—Furniture Polish.

Claims use since Feb. 9, 1918.

Ser. No. 154,994. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) RUTLAND FIRE CLAY CO., Rutland, Vt. Filed Nov. 3, 1921.



The shading in drawing not intended to represent any particular color paint.

Particular description of goods.—Crack Filler, Stovepipe Enamel, Asphalt Roof Paint and Tinners' Red Roof Paint.

Claims use since some time in 1913.

Ser. No. 155,071. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE TRAF-O-LITE MANUFACTURING COMPANY, and also trading as The Automobile Device Co., Cleveland, Ohio. Filed Nov. 5, 1921.

TRAF-Θ-LITE

Particular description of goods.—Electric Stop and Direction Signals for Automobiles.

Claims use since Oct. 9, 1921.

Ser. No. 155,074. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) C. K. WILLIAMS & CO., Easton, Pa. Filed Nov. 5, 1921.

The word "Brand" and the geographical term "Easton, Pa. U. S. A." are disclaimed apart from the mark shown in the drawing.

Particular description of goods.—Dry Colors and Fillers.

Claims use since 1906.

Ser. No. 155,083. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) BERRY BROTHERS, Detroit, Mich. Filed Nov. 7, 1921.

LIQUID GRANITE

Particular description of goods.—Varnishes.

Claims use since June 1, 1894.

Ser. No. 155,115. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) ERNST WALTER PLATE, Philadelphia, Pa. Filed Nov. 7, 1921.

Particular description of goods.—Stringed Musical Instruments That are Either Plucked or Bowed and the Parts Thereof.

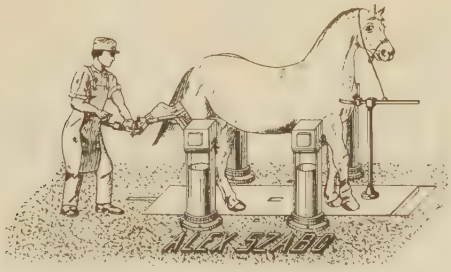
Claims use since on or about Oct. 15, 1921.

Ser. No. 155,256. (CLASS 42, KNITTED, NETTED, AND TEXTILE FABRICS.) COLUMBUS MANUFACTURING COMPANY, Columbus, Ga. Filed Nov. 10, 1921.

COLUMBUS

Particular description of goods.—Cotton Sheetings.
Claims use since 1900.

Ser. No. 155,279. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ALEX SZABO, Perth Amboy, N. J. Filed Nov. 10, 1921.



No claim being made to the representation of the apparatus apart from the mark.

Particular description of goods.—Horseshoeing Apparatus for Raising Up and Holding a Horse's Leg in Any Required Position and Hoof Cleaning and Forming Knives.
Claims use since Aug. 1, 1921.

Ser. No. 155,372. (CLASS 28. JEWELRY AND PRECIOUS METAL WARE.) M. SEIGER & SON, New York, N. Y. Filed Nov. 14, 1921.

HAPPINESS

Particular description of goods.—Finger Rings.
Claims use since Oct. 8, 1921.

Ser. No. 155,425. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE AUTO-VEHICLE PARTS COMPANY, Cincinnati, Ohio. Filed Nov. 16, 1921.

"Hit'em."

Particular description of goods.—Nails and Tacks.
Claims use since Sept. 16, 1921.

Ser. No. 155,474. (CLASS 28. JEWELRY AND PRECIOUS METAL WARE.) FRANCIS M. BOTELHO, trading as Francis M. Botelho Co., Philadelphia, Pa. Filed Nov. 17, 1921.

Zarita

Particular description of goods.—Pearls, Synthetic Pearls, Necklaces, and Clasps.
Claims use since May 15, 1921.

Ser. No. 155,502. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) GUSTAV KLEMPERER, trading as Cosmos Trading Company, New York, N. Y. Filed Nov. 17, 1921.

Cinderella

Particular description of goods.—Hair Nets.
Claims use since Feb. 27, 1919.

Ser. No. 155,534. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE STEARN COMPANY, New York, N. Y. Filed Nov. 14, 1921.

The word "Preserver" is disclaimed apart from the mark on the drawing.

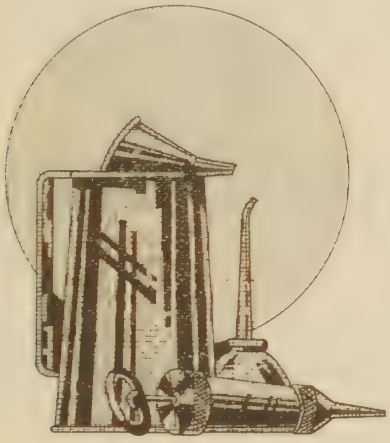
Particular description of goods.—Polishing Cream for Pipes Used in Smoking Tobacco.
Claims use since May 1, 1921.

Ser. No. 155,551. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) ELECTRIC OUTLET COMPANY, INC., New York, N. Y. Filed Nov. 18, 1921.

Elexits

Particular description of goods.—Wall and Ceiling Plates and Connections for Electric Lighting Fixtures and Other Electrical Appliances.
Claims use since about Feb. 11, 1921.

Ser. No. 155,579. (CLASS 15. OILS AND GREASES.) WADHAMS OIL COMPANY, Milwaukee, Wis. Filed Nov. 18, 1921.



The disk portion of label is colored red and the other portion colored yellow.
Particular description of goods.—Lubricating Oils.
Claims use since March, 1919.

Ser. No. 155,592. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BAUER & BLACK, Chicago, Ill. Filed Nov. 19, 1921.

Pageant

Particular description of goods.—Talcum Powder.
Claims use since Nov. 1, 1921.

Ser. No. 155,602. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) HENRY L. DE ZENG, trading as De Zeng-Standard Co., Camden, N. J. Filed Nov. 19, 1921.

DAYLIGHT

Particular description of goods.—Eye, Ear, Nose and Throat Diagnostic Instruments—Namely, Ophthalmoscopes, Retinoscopes, Otoscopes, Laryngoscopes, Pharyngoscopes, Tongue Depressors, Specula, Muscle Tests, Illuminators, Transilluminators, Perimeters, Optometers, Phorometers, Phoroptors, Laryngeal Blades and Light Screens.
Claims use since about Nov. 17, 1921.

Ser. No. 155,632. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EMMETT POWERS, trading as Joon Perfumery Co., Denver, Colo. Filed Nov. 19, 1921.

JOON

Particular description of goods.—Toilet Preparations—Namely, Toilet Creams, Toilet Lotions, Shampoos, Hair Rinses, Complexion Packs, and Wrinkle Plastics.
Claims use since Oct. 29, 1921.

Ser. No. 155,648. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EMIL V. VLACH, New York, N. Y. Filed Nov. 19, 1921.

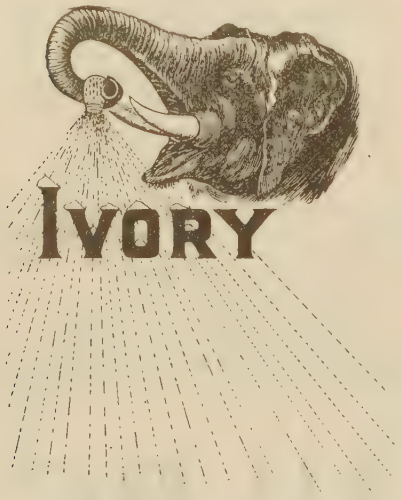
VAPS

Particular description of goods.—Salve for External Application for Boils, Cuts, Wounds, Etc.
Claims use since Nov. 1, 1921.

Ser. No. 155,700. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) THE MAY DEPARTMENT STORES COMPANY, St. Louis, Mo. Filed Nov. 21, 1921.

No claim is made to the word "Perle" nor to the word "Condé" apart from the mark shown in the drawing.
Particular description of goods.—Imitation Pearls.
Claims use since about Sept. 16, 1921.

Ser. No. 155,723. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WORCESTER SALT CO., New York and Silver Springs, N. Y., and Ecorse, Mich. Filed Nov. 21, 1921.



Particular description of goods.—Salt—i. e., Sodium Chlorid, Comprising Approximately One Per Cent of Calcium Carbonate, so as to Make It Particularly Suitable for Use in Shakers.
Claims use since Jan. 2, 1895.

Ser. No. 155,724. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) WIGHTMAN & HOUGH COMPANY, Providence, R. I. Filed Nov. 21, 1921.

YANKEE

The cross lines in the drawing are for shading purposes only.
Particular description of goods.—Belt Buckles, Shoe Buckles, Clothing Buckles, All of Said Articles Being Made of Precious Metal.
Claims use since May, 1921.

Ser. No. 155,765. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MOUNT HOPE FINISHING COMPANY, Dighton, Mass. Filed Nov. 22, 1921.

Montaup

Particular description of goods.—Cotton Piece Goods, Silk Piece Goods, and Silk and Cotton Piece Goods, Either Plain or Fancy Woven.
Claims use since Oct. 1, 1921.

Ser. No. 155,786. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SITROUX IMPORTING COMPANY, INC., New York, N. Y. Filed Nov. 22, 1921.

Deleysia

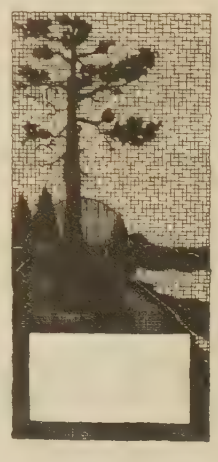
Particular description of goods.—Hair Nets.
Claims use since Apr. 8, 1921.

Ser. No. 155,804. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CONTINENTAL MILLS, INC., Philadelphia, Pa. Filed Nov. 23, 1921.

CONTINENTAL

The trade-mark consists of the word "Continental."
Particular description of goods.—Knitted Woolen and Worsted Cloths, Jersey Cloths, Eiderdowns, Chinchillas, and Special Knitted Fabrics Having a Fleecy Pile or Surface in the Piece.
Claims use since about June 1, 1911.

Ser. No. 155,818. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LOUIS LUCAS COMPANY, INC., Jamestown, N. Y. Filed Nov. 23, 1921.



The trade-mark has a lining of yellow to represent the sky and water and red for the sun.
Particular description of goods.—Aromatic Incense.
Claims use since Feb. 16, 1918.

Ser. No. 155,832. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES F. ROOT, New York, N. Y. Filed Nov. 23, 1921.

Particular description of goods.—Lotion for Dressing the Hair.
Claims use since Aug. 1, 1921.

Ser. No. 155,852. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) THE AMERICAN BRASS COMPANY, Waterbury, Conn. Filed Nov. 25, 1921.

Particular description of goods.—Cast, Drawn, Rolled, Extruded, Pressed, and Machined Nonferrous Metals and Alloys, and Ingots, Castings, Sheets, Rolls, Wire, Strips, Rods, and Tubes Made from Such Metals and Alloys.
Claims use since Sept. 8, 1921.

Ser. No. 155,883. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH HERMAN, New York, N. Y. Filed Nov. 25, 1921.

Particular description of goods.—Perfumes and Toilet Water.
Claims use since Oct. 1, 1921.

Ser. No. 155,958. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FENG LABORATORIES, INC., New York, N. Y. Filed Nov. 26, 1921.

COLI-ACTINE
"FENG"

Particular description of goods.—Medicinal Preparations.
Claims use since Sept. 1, 1920.

Ser. No. 156,024. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOCIETE LA FRANCE TOILET GOODS CO. INC., New York, N. Y. Filed Nov. 28, 1921.

LA FRANCO

Particular description of goods.—Toilet Preparations for Skin Treatment—Namely, Creams, Perfumes, Smelling Salt, and Bath Salt.
Claims use since June, 1921.

Ser. No. 156,057. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) PEASE & DWYER CO., Memphis, Tenn. Filed Nov. 29, 1921.

Particular description of goods.—Field and Garden Seeds.
Claims use since Oct. 15, 1921.

Ser. No. 156,069. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOLOMON NEIMAN, trading as The Essen Perfumery Company, New York, N. Y. Filed Nov. 25, 1921.

REZEDA

Particular description of goods.—Astringent, Hair Tonic, Oily-Hair Tonic, Liquid Hand Cream, Gray-Hair Color Restorer, Liquid Complexion Powder, Skin Lotion, Skin Tonic, Shampoo, Liquid Perspiration Deodorizer, Rolling Massage Cream, Freckle Cream, Liquid Rouge, Powder for Removing Superfluous Hair; Cleansing Cream, (Cold Cream;) Cream for Wrinkles, Whitening Cream, Brilliantine, Greaseless Cream, Perspiration Deodorizer Paste, Complexion Powder, Compact Natural Rouge, Compact Face Powder, Tissue Cream, Muscle Oil, Toilet Powder, Sachet Powder, Talc.
Claims use since July 5, 1917.

Ser. No. 156,071. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM BALLHORN, Garwin, Iowa. Filed Nov. 30, 1921.

No claim being made to the use of the word "Remedy" apart from the mark shown in the drawing. The portrait forming a part of the mark is that of Wm. Ballhorn, the owner of the mark.
Particular description of goods.—Remedy for Fistula and Poll-Evil in Horses and Cattle.
Claims use since Nov. 7, 1921.

Ser. No. 156,112. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) SUN CHEMICAL & COLOR COMPANY, Wilmington, Del., and Harrison, N. J. Filed Nov. 30, 1921.

No claim is made to the words "Dry Colors" apart from the mark shown in drawing.
Particular description of goods.—Dry Paints.
Claims use since Oct. 1, 1921.

Ser. No. 156,115. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SAMSTAG & HILDER BROS., New York, N. Y. Filed Nov. 30, 1921.

THE SILVER BELLE

Particular description of goods.—Hair Nets.
Claims use since Sept. 30, 1921.

Ser. No. 156,118. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALICE THOMPSON, San Francisco, Calif. Filed Nov. 30, 1921.

Particular description of goods.—Face Bleach, Building Astringent, Powder Used as a Foot Ease, Rouge, Face Powder, Bath Powder, and Face Cream.
Claims use since Feb. 1, 1917.

Ser. No. 156,165. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) MCCLOSKEY VARNISH CO., Philadelphia, Pa. Filed Dec. 1, 1921.

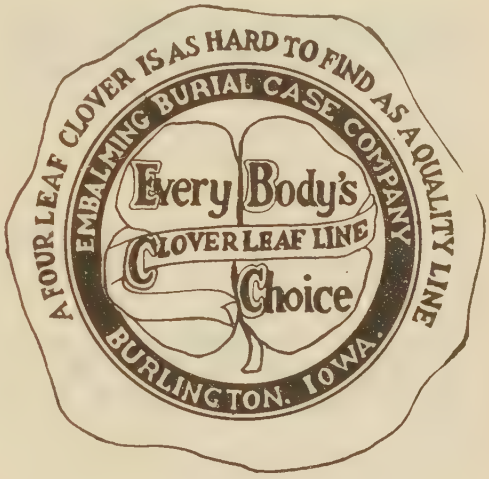
No claim is made for the word "Spar" apart from the mark shown in the drawing.
Particular description of goods.—Varnishes.
Claims use since Jan. 10, 1921.

Ser. No. 156,342. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) RIVERSIDE & DAN RIVER COTTON MILLS, INC., Danville, Va. Filed Dec. 6, 1921.

DEFIANCE

Particular description of goods.—Chambray and Cheviots in the Piece.
Claims use since 1904.

Ser. No. 156,361. (CLASS 2. RECEPTACLES.) EMBALMING BURIAL CASE COMPANY, Burlington, Iowa. Filed Dec. 7, 1921.


A FOUR LEAF CLOVER IS AS HARD TO FIND AS A QUALITY LINE
EMBALMING BURIAL CASE COMPANY
Every Body's
CLOVER LEAF LINE
Choice
BURLINGTON, IOWA.

The words "Everybody's Choice" and "Burlington, Iowa," are disclaimed apart from the mark shown on the drawing.
Particular description of goods.—Burial Cases.
Claims use since Oct. 18, 1921.

Ser. No. 156,405. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PASSAIC PRINT WORKS, Passaic, N. J. Filed Dec. 7, 1921.

BROCADET

Particular description of goods.—Cotton Piece Goods.
Claims use since January, 1902.

Ser. No. 156,411. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PASSAIC PRINT WORKS, Passaic, N. J. Filed Dec. 7, 1921.

CENTRAL PARK

Particular description of goods.—Cotton Piece Goods.
Claims use since January, 1882.

Ser. No. 156,433. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GABRIEL J. BENAVIDES, Philadelphia, Pa. Filed Dec. 8, 1921.

BENACURA

Particular description of goods.—Ointment Remedies for Dandruff.
Claims use since Oct. 1, 1921.

Ser. No. 156,461. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JAMES ORR & SONS, LIMITED, Manchester, England. Filed Dec. 8, 1921.

ORRTEX.

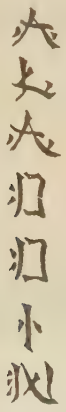
Particular description of goods.—Cotton Voile Cloths.
Claims use since Feb. 22, 1921.

Ser. No. 156,462. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE PURABRAND PRODUCTS CO., Pleasant Hill, Ohio. Filed Dec. 8, 1921.

GLANTONE

Particular description of goods.—Medicine for the Treatment of Stomach Trouble, Liver Trouble, Kidney Trouble, Constipation, Biliousness, Female Weakness, Loss of Appetite, Rheumatism, Pimples, Boils, Anæmia, Sleeplessness, Malnutrition, Nervousness, Impure Blood, and Run-Down Conditions.
Claims use since Nov. 16, 1921.

Ser. No. 156,507. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) CHARLES T. SUNDMACHER, Brooklyn, N. Y. Filed Dec. 9, 1921.



Particular description of goods.—Finger-Nail Buffers.
Claims use since Oct. 15, 1921.

Ser. No. 156,549. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) S. ROBERT SCHWARTZ & BRO., New York, N. Y. Filed Dec. 10, 1921.

Q-RAY

(CURE-RAY)

No claim is made to the words "Cure-Ray" apart from the mark as shown on drawing.
Particular description of goods.—Therapeutic Lamps.
Claims use since about Dec. 5, 1921.

Ser. No. 156,553. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) P. C. TOMSON & CO., Philadelphia, Pa. Filed Dec. 10, 1921.

The trade-mark consists of the pictorial representation of an animal seal colored red.
Particular description of goods.—Lye.
Claims use since Jan. 15, 1921.

Ser. No. 156,555. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) P. C. TOMSON & CO., Philadelphia, Pa. Filed Dec. 10, 1921.

RED SEAL

Particular description of goods.—Chlorinated Lime.
Claims use since Jan. 15, 1912.

Ser. No. 156,680. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE CHICAGO GLASS PRODUCTS COMPANY, Chicago, Ill. Filed Dec. 14, 1921.

GLASCO PRODUCTS

No claim is made to the word "Products" apart from the mark shown.

Particular description of goods.—Glass Products—Namely, Thin Blown Machine Glasses, Medicine Droppers, Nasal Douches, and Nipple Shields.

Claims use since Nov. 1, 1918.

Ser. No. 156,700. (CLASS 39. CLOTHING.) MORSE AND BURT CO., INC., Brooklyn, N. Y. Filed Dec. 14, 1921.

No claim being made to the exclusive use of the mere representation of a shoe.

Particular description of goods.—Shoes of Leather, Fabric, and Combination.

Claims use since Feb. 1, 1921.

Ser. No. 156,732. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AMERICAN CHEMICAL & DRUG COMPANY, INC., Olyphant, Pa. Filed Dec. 15, 1921.

PAIN-O-MENT

Particular description of goods.—Solidified Liniment for External Use, Neuralgia, Rheumatism, Lame Backs, Stiff Joints, and General Aches and Pains.

Claims use since Feb. 4, 1921.

Ser. No. 156,765. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) R. SCHEANBLUM, New York, N. Y. Filed Dec. 15, 1921.

UNITED

Particular description of goods.—Hair Nets.

Claims use since on or about Nov. 15, 1921.

Ser. No. 156,780. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANK CARLSON, Minneapolis, Minn. Filed Dec. 16, 1921.

CARLSON'S
HONEY CURE

No claim is herein made to the words "Honey Cure" apart from the arrangement shown in the drawings; but said disclaimer is made without waiving any rights that I may have thereto under the common law. The picture herein illustrated in the drawing was made from a photo of myself.

Particular description of goods.—Preparation for the Throat and Lungs.

Claims use since on or about Nov. 30, 1921.

Ser. No. 156,807. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ADOLPH ABB ROSENFIELD, trading as N. M. T. A. Mfg. Co., New York, N. Y. Filed Dec. 16, 1921.

No claim being made to the exclusive use of the words "Means No More Toothache Use This Meaning No

More Toothache. Any More Toothache? No More!" apart from the mark as shown on the drawing.

Particular description of goods.—Medicinal Preparation for the Treatment of the Gums and Teeth.

Claims use since Nov. 15, 1921.

Ser. No. 156,811. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) SIMMONS HARDWARE COMPANY, St. Louis, Mo. Filed Dec. 16, 1921.

LIGHTNIN

Particular description of goods.—Storage Batteries.

Claims use since Oct. 10, 1921.

Ser. No. 156,896. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) GOLD MARK KNITTING CO., Woonsocket, R. I. Filed Dec. 19, 1921.

GOLD MARK KNITTING CO.
Gold Mark
KNITTED FABRICS
WOONSOCKET, R.I.

The descriptive words "Knitted Fabrics" and the words "Woonsocket, R. I." are disclaimed.

Particular description of goods.—Knitted Goods of Wool and Wool Mixture.

Claims use since June 1, 1919.

Ser. No. 156,918. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) JOSEPH E. NAREGAN, Los Angeles, Calif. Filed Dec. 19, 1921.

Common Sense

Particular description of goods.—Suspensories.

Claims use since July, 1918.

Ser. No. 156,935. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) F. A. THOMPSON & COMPANY, Detroit, Mich. Filed Dec. 19, 1921.

DUTCH BOY

Particular description of goods.—Medicine for Kidney, Liver, Bladder, Rheumatism, and Uric-Acid Troubles.

Claims use since Dec. 1, 1921.

Ser. No. 156,966. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) NEVIL MONROE HOPKINS, New York, N. Y. Filed Dec. 20, 1921.

BURNOT

FIREPROOFING PRODUCTS

No claim being made to the words "Fireproof Products" apart from the mark shown accompanying drawing.

Particular description of goods.—Fireproof Paints and Varnishes.

Claims use since Dec. 1, 1921.

Ser. No. 157,023. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHERAMY, INCORPORATED, New York, N. Y. Filed Dec. 22, 1921.

FROLIC

Particular description of goods.—Perfume, Toilet Water, Face Lotion, Face Powder, Rouge, Sachet, Brilliantine, and Talcum Powder.

Claims use since Nov. 10, 1921.

Ser. No. 157,027. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE DAMPNEY COMPANY OF AMERICA, Boston, Mass. Filed Dec. 22, 1921.

NUMBER 3

Particular description of goods.—Protective Paint Coatings.

Claims use since January, 1916.

Ser. No. 157,028. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE DAMPNEY COMPANY OF AMERICA, Boston, Mass. Filed Dec. 22, 1921.

CARBONCOAT

Particular description of goods.—Protective Paint Coatings.

Claims use since November, 1915.

Ser. No. 157,056. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) COMPLEXION PRODUCTS CO., New York, N. Y. Filed Dec. 23, 1921.

Particular description of goods.—Liquid Chemical Preparation for Use in Making Face Powder Adhere to the Skin.
Claims use since Nov. 15, 1921.

Ser. No. 157,057. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) OTIS P. CRIM, trading as Dairy-Maid Baking Powder Company, Anderson, Ind. Filed Dec. 23, 1921.

Particular description of goods.—Baking Powder.
Claims use since Nov. 15, 1921.

Ser. No. 157,158. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) LYON & HEALY, Chicago, Ill. Filed Dec. 27, 1921.

APARTMENT

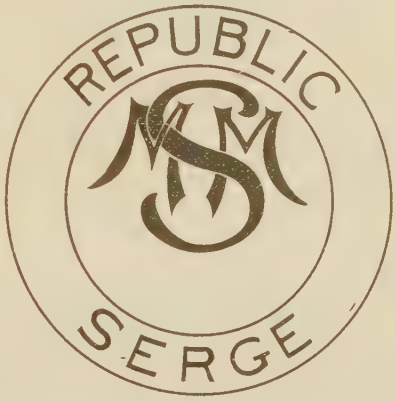
Particular description of goods.—Talking Machines and Music Boxes.
Claims use since about Apr. 1, 1916.

Ser. No. 157,197. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE M. I. WILCOX COMPANY, Toledo, Ohio. Filed Dec. 27, 1921.

WILSTAND

Particular description of goods.—Dry, Ready-Mixed, and Paste Paints and Varnishes and Putty.
Claims use since October, 1911.

Ser. No. 157,239. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MORRIS M. SCHER, Baltimore, Md. Filed Dec. 28, 1921.



No claim is made to the use of the word "Serge" apart from the mark shown in the drawing.
Particular description of goods.—Serge in the Piece.
Claims use since July 1, 1914.

Ser. No. 157,257. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) CHICAGO TIMER FACTORY INCORPORATED, Chicago, Ill. Filed Dec. 29, 1921.

Particular description of goods.—Timers for Internal-Combustion Engines.
Claims use since Oct. 29, 1921.

Ser. No. 157,292. (CLASS 37. PAPER AND STATIONERY.) AMERICAN WRITING PAPER COMPANY, Holyoke, Mass. Filed Dec. 30, 1921.

MT. NONOTUCK MILLS

No claim being made to the exclusive use of word "Mills" apart from the mark as shown on the drawing.
Particular description of goods.—Writing and Printing Papers.
Claims use since Sept. 24, 1921.

Ser. No. 157,297. (CLASS 28. JEWELRY AND PRECIOUS METAL WARE.) MAX BAUMAN, trading as M. Bauman & Company, New York, N. Y. Filed Dec. 30, 1921.

BRIDAL BOW

Particular description of goods.—Finger Rings.
Claims use since Dec. 12, 1921.

Ser. No. 157,322. (CLASS 5. ADHESIVES.) LA SOCIETE DES PRODUITS CHIMIQUES COIGNET, Paris, France. Filed Dec. 30, 1921.

Particular description of goods.—Glue and Gelatine.
Claims use since Apr. 5, 1881.

Ser. No. 157,328. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) MARINE DECKING & SUPPLY COMPANY, Philadelphia, Pa. Filed Dec. 30, 1921.

MADESCO

Particular description of goods.—Paints of Ready-Mixed Form and Varnishes for Both Indoor and Outdoor Work, Fillers, Paint Pigments and Vehicles, Driers and Chrome for Application to Sweated Surfaces.
Claims use since April, 1920.

Ser. No. 157,339. (CLASS 39. CLOTHING.) TREO COMPANY, INC., New York, N. Y. Filed Dec. 30, 1921.

PARATRIX

Particular description of goods.—Elastic Corsets.
Claims use since Dec. 9, 1921.

Ser. No. 157,340. (CLASS 39. CLOTHING.) TREO COMPANY, INC., New York, N. Y. Filed Dec. 30, 1921.

PARAREX

Particular description of goods.—Elastic Corsets.
Claims use since Dec. 9, 1921.

Ser. No. 157,341. (CLASS 39. CLOTHING.) TREO COMPANY, INC., New York, N. Y. Filed Dec. 30, 1921.

PARATEX

Particular description of goods.—Elastic Corsets.
Claims use since Dec. 9, 1921.

Ser. No. 157,342. (CLASS 39. CLOTHING.) TREO COMPANY, INC., New York, N. Y. Filed Dec. 30, 1921.

ANCHORBAND

The monopoly of the word "Band" except in combination with the word "Anchor" as shown is hereby disclaimed.
Particular description of goods.—Elastic Corsets.
Claims use since Dec. 9, 1921.

Ser. No. 157,345. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) UNITED AUTO ELECTRIC SERVICE, INC., Newark, N. J. Filed Dec. 30, 1921.

The words "Storage Battery" are disclaimed apart from the mark as shown in the drawing.
Particular description of goods.—Electrical Apparatus, Machines, and Supplies.
Claims use since Sept. 5, 1921.

Ser. No. 157,356. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE BANNER SILK KNITTING MILLS, INC., New York, N. Y. Filed Dec. 31, 1921.

KANTON-KNIT

Particular description of goods.—Textile Fabrics—viz., Silk Knitted Cloth.
Claims use since Dec. 1, 1921.

Ser. No. 157,387. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) PACE PHONOGRAPH CORPORATION, New York, N. Y. Filed Dec. 31, 1921.

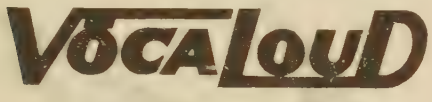
SWANOLA

Particular description of goods.—Phonographs, Phonograph Records, Player and Manual Pianos and Organs, and Player Rolls.
Claims use since Jan. 1, 1921.

Ser. No. 157,432. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) LINCOLN LIGHT CORPORATION, Grafton, Wis. Filed Jan. 3, 1922.

Particular description of goods.—Electric-Power-Generating Units.
Claims use since November, 1920.

Ser. No. 157,518. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) JOHN FIRTH & CO., INC., New York, N. Y. Filed Jan. 5, 1922.



Particular description of goods.—Apparatus for Amplifying the Effects of Electric Currents and for Converting into Sound Electric Currents Representing Telegraphic, Telephonic and Other Signals.
Claims use since on or about May 31, 1921.

Ser. No. 157,529. (CLASS 15. OILS AND GREASES.) ANNA V. MCCONAGHY, Washington, D. C. Filed Jan. 5, 1922.

No claim being made to the words, "Gasoline, Oils, Grease Kerosene, Service, Efficiency, Economy."
Particular description of goods.—Lubricating and Illuminating Oils and Greases and Gasoline.
Claims use since Sept. 1, 1921.

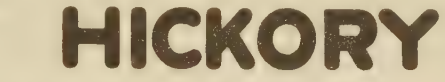
Ser. No. 157,567. (CLASS 2. RECEPTACLES.) BENJAMIN L. HOCH, Brooklyn, N. Y. Filed Jan. 6, 1922.

Particular description of goods.—Antiseptic Toothbrush Containers of Cabinet Form.
Claims use since Nov. 10, 1921.

Ser. No. 157,694. (CLASS 39. CLOTHING.) SAMUEL SANTALUCIA, Waterbury, Conn. Filed Jan. 9, 1922.

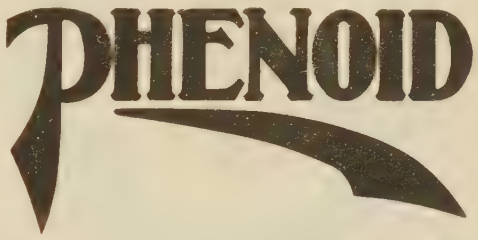
No claim is made to the word "Heel" which appears on the drawing apart from the mark.
Particular description of goods.—Rubber Heels.
Claims use since Nov. 1, 1921.

Ser. No. 157,698. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) A. STEIN & COMPANY, Chicago, Ill. Filed Jan. 9, 1922.



Particular description of goods.—Sanitary Aprons and Sanitary Belts.
Claims use since January, 1913.

Ser. No. 157,756. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) CHALMERS CHEMICAL COMPANY, Newark, N. J. Filed Jan. 11, 1922.



Particular description of goods.—Paint Removers and Varnish Removers.
Claims use since November, 1911.

Ser. No. 157,844. (CLASS 33. GLASSWARE.) THE NIFTY JAR & COOKER MANUFACTURING COMPANY, Cincinnati, Ohio. Filed Jan. 12, 1922.

Without waiving any of the common-law rights in the premises the said corporation disclaims any attempt to

hereby cover in the registration of its mark the words and abbreviations—viz., "Made in U. S. A." "The," "Jar," "Trade Mark," "Manufactured by," "The Nifty Jar & Cooker Mfg. Co.," and "Cincinnati, Ohio" apart from the mark as shown.

Particular description of goods.—Food Containers, More Particularly Glass Jars.

Claims use since December, 1921.

Ser. No. 157,887. (CLASS 7. CORDAGE.) CLARK BROS. MFG. CO., Camden, N. J., and Philadelphia, Pa. Filed Jan. 13, 1922.

Kalkutta Kord

Trade-mark consists of the words "Kalkutta Kord," no claim being made to the word "Kord" apart from the mark shown in the drawing.

Particular description of goods.—Rope, Rovings, Cords, and Twines Made from Vegetable and Animal Fibers, Such as Cotton, Flax, Jute, Ramie, Hemp, Manila, Sisal, Wool, and Silk, (Natural and Artificial.)

Claims use since about July 15, 1921.

Ser. No. 157,904. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) S. SCHMUKLER & SON, Philadelphia, Pa. Filed Jan. 13, 1922.

S

Particular description of goods.—Electrical Switches, Inclosed Electrical Switches, Ground Clamps, Outlet Boxes, Outlet-Box Covers, Cut-Out Boxes, Panel Boxes, and Switch Boxes or Cabinets.

Claims use since on or about July 1, 1917.

Ser. No. 157,952. (CLASS 37. PAPER AND STATIONERY.) POWERS PAPER COMPANY, Springfield, Mass. Filed Jan. 14, 1922.

Qualitex

Particular description of goods.—Writing Paper, Printing Paper, Writing Tablets, Papeteries, Correspondence Envelopes, Typewriter Paper, and Wedding Stationery—Namely, Cards for Invitation, Announcement Cards, and Special Finished Paper and Envelopes, Either in Box or Bulk Form.

Claims use since Dec. 15, 1921.

Ser. No. 157,955. (CLASS 37. PAPER AND STATIONERY.) POWERS PAPER COMPANY, Springfield, Mass. Filed Jan. 14, 1922.

FABRITEX

Particular description of goods.—Writing Paper, Printing Paper, Writing Tablets, Papeteries, Correspondence Envelopes, Typewriter Paper, and Wedding Stationery—Namely, Cards for Invitation, Announcement Cards, and Special Finished Paper and Envelopes, Either in Box or Bulk Form.

Claims use since Dec. 15, 1921.

Ser. No. 158,006. (CLASS 28. JEWELRY AND PRECIOUS METAL WARE.) CLIFFORD B. POAGE, Columbus, Ohio. Filed Jan. 16, 1922.

ZODIAC

TRADE MARK REG'D

No claim is made herein to the exclusive use of the words "Trade-Mark Reg'd" apart from the trade-mark shown.

Particular description of goods.—Finger Rings.

Claims use since Nov. 21, 1921.

Ser. No. 158,079. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) EDWARD B. DEWEY, Washington, D. C., and New York, N. Y. Filed Jan. 18, 1922.

Falconelle

Particular description of goods.—Hair Nets.

Claims use since Dec. 20, 1921.

Ser. No. 158,099. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) JOHN SEXTON AND COMPANY, Chicago, Ill. Filed Jan. 18, 1922.

EDELWEISS

Particular description of goods.—Paints, Ready-Mixed Paint Enamels, Varnishes; Wood Filler, (Liquid and Paste;) Stains, Ready-Mixed Paints for Cement and Concrete Surfaces, Furniture Polish, Floor Wax and Wax for Finishing and Polishing Floors, Furniture, and Woodwork.
Claims use since October, 1904.

Ser. No. 158,105. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WALKER KNITTING MILLS, INC., New York, N. Y. Filed Jan. 18, 1922.

SILVELENE

Particular description of goods.—Silk, Cotton, and Woolen Piece Goods and a Combination Thereof.
Claims use since Dec. 29, 1921.

Ser. No. 158,108. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) C. ALEXOPOULOS BROS., INC., New York, N. Y. Filed Jan. 19, 1922.

INDIANOLA MILLS

Particular description of goods.—Drills, Twills, Bleached and Unbleached Sheetings, Plaids, and Stripes, Denim, Cottonades, Ticking, Awning Cloths, Colored Drills, Duck, and Palm-Beach Cloth.
Claims use since Apr. 8, 1921.

Ser. No. 158,149. (CLASS 2. RECEPTACLES.) THE RECO-RAP COMPANY, St. Louis, Mo. Filed Jan. 19, 1922.

Reco Rap

Particular description of goods.—Transportation Packages for Talking-Machine Records.
Claims use since Dec. 17, 1921.

Ser. No. 158,174. (CLASS 15. OILS AND GREASES.) THE BLACK HAWK OIL COMPANY, Cedar Falls, Iowa. Filed Jan. 20, 1922.

ALL-YEAR

Particular description of goods.—Gasoline.
Claims use since on or about Nov. 15, 1921.

Ser. No. 158,244. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) JAMES MCCREERY & COMPANY, New York, N. Y. Filed Jan. 21, 1922.

La Gloire

Particular description of goods.—Nail Files, Nail Buffers, Manicuring Scissors, and Cuticle Knives.
Claims use since Oct. 25, 1921.

Ser. No. 158,264. (CLASS 15. OILS AND GREASES.) STANDARD OIL COMPANY (INCORPORATED IN NEW JERSEY), Bayonne, N. J. Filed Jan. 21, 1922.

Particular description of goods.—Axle Greases, Black Greases, Black Oils, Brick-Mold Oils, Burning Oils, Burning Oils for Miners' Lamps, Cable-Lubricating Oils, Car-Journal-Box Oils, Coach-Axle Oils, Cold-Test Cylinder Oils, Compounded Oils, Compressor Oils, Crank-Case Oils, Cream-Separator Oils, Crude Lubricating Oils, Crude Oils, Cup Greases, Cutting Oils, Cylinder Oils, Dark Axle Greases, Dark Filtered Cylinder Oils, Deodorized Gasolines, Deodorized Naphthas, Dynamo Oils, Elevator-Circulating-System Oils, Engine-Lubricating Oils, Extra-Filtered Cylinder Oils, Extra-Heavy Lubricating Oils, Extra-Heavy Turbine Oils, Farming-Implement Oils; Fiber Greases, (Lubricating;) Fuel Oils, Gas-Engine Cylinder Oils, Gas-Engine-Lubricating Oils, Gas-Engine Tractor-Lubricating Oils, Gasolines, Gas-Machine Gasolines, Gas Oils, Gear Greases, Harvestry-Machinery Oils, Heating Oils, Heavy Engine Oils, Heavy Filtered Spindle Oils; Heavy Motor Oils, (Lubricating;) Heavy Turbine Oils, Hoof Oils, Household Lubricating Oils, Illuminating Oils, Journal Oils, Kerosene, Kerosene Oils, Lantern Oils, Light Axle Greases, Loom Oils, Low-Pressure Cylinder Oils, Lubricating Greases, Lubricating Oils, Machine Oils, Mine-Car Oils, Mine-Car-Motor Oils, Mineral Seal Oils, Motor Gasolines, Motor-Lubricating Oils, Neutral Oils, Paraffin Oils, Petroleum Greases, #1 Petroleum Greases, #2 Petroleum

Greases, #3 Petroleum Greases, #4 Petroleum Greases, #5 Petroleum Greases, #6 Petroleum Greases, Power Oils, Railway-Car Oils, Refrigerating-Machine Oils, Rerun Wax Tailings, Road Oils, Roofing Oils, Sewing-Machine Oils, Signal-Lantern Oils, Special Deodorized Gasoline, Spindle Oils, Steam-Cylinder Oils, Stock Oils, Stone-Crusher Oils, Straw Oils, Straw Paraffin Oils, Tempering Oils, Transformer Oils, Transmission Lubricants, Transmission Oils, Thread-Cutting Oils, Turbine Oils, Valve Oils, Wax Tailings, and White Spindle Oils.

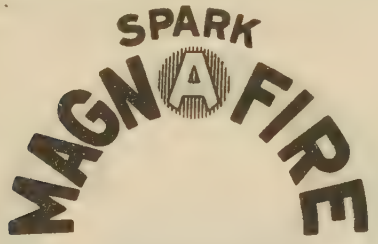
Claims use since Oct. 25, 1915.

Ser. No. 158,269. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) UNCAS MANUFACTURING CO., Providence, R. I. Filed Jan. 21, 1922.

Particular description of goods.—Finger Rings Which are Made of or Plated with Precious Metals.

Claims use since January, 1920.

Ser. No. 158,338. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) BLASDEL SHAPLEIGH, trading as Blasdel Products Co., St. Louis, Mo. Filed Jan. 23, 1922.



The lining in the circle indicates red.

Particular description of goods.—Electric Spark Energizers.

Claims use since Nov. 15, 1921.

Ser. No. 158,351. (CLASS 37. PAPER AND STATIONERY.) THE WINTERBOTTOM BOOK CLOTH COMPANY LIMITED, Manchester, England. Filed Jan. 23, 1922.

No claim is made to the exclusive right to the use of the words "The 'Stirling' Tracing Cloth Made in England" apart from the mark shown in the drawing.

Particular description of goods.—Tracing Cloth.

Claims use since about the year 1914.

Ser. No. 158,438. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PARISTYLE NOVELTY CO. INC., New York, N. Y. Filed Jan. 25, 1922.

Melrose

Particular description of goods.—Hair Nets.

Claims use since about Apr. 1, 1912.

Ser. No. 158,477. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) KATZ & OGUSH, INC., New York, N. Y. Filed Jan. 26, 1922.

Particular description of goods.—Finger Rings, Bar Pins, Scarf Pins, Bracelets, Sautoirs, Watch Chains, Gem Settings, Mesh Bags, Vanity Cases, Barrettes, Brooches, Belt Buckles, Collar Pins, Cigarette Cases, Cigar Cutters, Collar Buttons, Earrings, Fobs, Medals, Cuff Buttons, Shoe Buckles, Necklace Clasps, Lockets, Tie Clasps, and Veil Pins, All of the Above Articles Being Made of or Plated with Precious Metal.

Claims use since Jan. 17, 1921.

Ser. No. 158,482. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) MINIATURE BREAKER CO. INC., Long Island City, N. Y. Filed Jan. 26, 1922.

No claim being made to the exclusive use of the words "Electrical Protection" apart from the mark as shown on the drawing.

Particular description of goods.—Starting Switches and Circuit Interrupters.

Claims use since Sept. 1, 1921.

Ser. No. 158,502. (CLASS 37. PAPER AND STATIONERY.) WHITE-WASHBURNE COMPANY, INC., Hinsdale, N. H. Filed Jan. 26, 1922.

PALMETTO

Particular description of goods.—Toilet Paper.
Claims use since June 16, 1915.

Ser. No. 158,767. (CLASS 15. OILS AND GREASES.) THE GLOBE REFINING COMPANY, Cleveland, Ohio. Filed Feb. 2, 1922.

No claim being made to the words "Motor Oil."
Particular description of goods.—Lubricating Oil and Grease.
Claims use since Jan. 12, 1922.

Ser. No. 158,828. (CLASS 2. RECEPTACLES.) ANDREW B. FLAGG, trading as Flagg & Mowry, North Attleboro, Mass. Filed Feb. 3, 1922.

POWDER TIER

Particular description of goods.—Vanity Cases.
Claims use since Jan. 2, 1922.

Ser. No. 158,847. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) BEAVER MACH. & TOOL CO., INC., Newark, N. J. Filed Feb. 4, 1922.

GRIPALL

Particular description of goods.—Electrical Plugs, Attachment Plugs, and Switch Plugs.
Claims use since Nov. 1, 1921.

Ser. No. 158,849. (CLASS 37. PAPER AND STATIONERY.) BUETTELL BROTHERS COMPANY, Dubuque, Iowa. Filed Feb. 4, 1922.

Particular description of goods.—Blank Books, Memorandum Books, Loose-Leaf Binders, Writing Paper, Envelopes, Typewriting Paper, Paper Tablets, Notebooks, Composition Books, Lead Pencils, Penholders, Rubber Erasers, Steel Pens, Paper-Box Files, Paper Filing Devices, Crêpe Tissue Paper, Shelf Paper, Paper Napkins, Paper Doilies, Wrapping Paper, Toilet Paper, and Paper Towels.
Claims use since about June, 1892.

Ser. No. 158,868. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) HEMCO ELECTRIC MANUFACTURING COMPANY, INC., New York, N. Y. Filed Feb. 4, 1922.

TRIP-LITE

Particular description of goods.—Electric Fixtures—Namely, Connection Plugs and Lamp Sockets.
Claims use since July, 1921.

Ser. No. 158,869. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) HEMCO ELECTRIC MANUFACTURING COMPANY, INC., New York, N. Y. Filed Feb. 4, 1922.

TACH-LITE

Particular description of goods.—Electric Fixtures—Namely, Connection Plugs and Lamp Sockets.
Claims use since July, 1921.

Ser. No. 159,000. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) STE. AME. DES INDUSTRIES CHIMIQUES WILSELE-LOUVAIN, Wilsele-lez-Louvain, Belgium. Filed Feb. 7, 1922.

Particular description of goods.—Chemicals and Paints, More Particularly Lithopone, Permanent Zinc Paint Having Zinc Sulphide as a Base, Unaffected by Light or Sun Rays.
Claims use since 1908.

Ser. No. 159,279. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) NER-A-CAR CORPORATION, Syracuse, N. Y. Filed Feb. 13, 1922.

The words "Trade Mark" and "Syracuse, N. Y.," being disclaimed apart from the mark shown.
Particular description of goods.—Motor Cycles.
Claims use since November, 1920.

Ser. No. 159,328. (CLASS 37. PAPER AND STATIONERY.) STRATHMORE PAPER COMPANY, West Springfield, Mass. Filed Feb. 14, 1922.

Silversheen

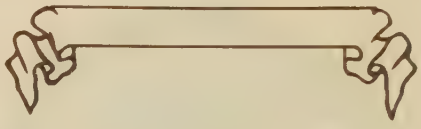
Particular description of goods.—Paper for Writing, Typewriting, Printing, and Engraving Purposes; Photomount and Cover Papers, Cardboard, Bristol Board, and Paper for Picture and Photograph Mats.
Claims use since Jan. 28, 1922.

Ser. No. 159,374. (CLASS 43. THREAD AND YARN.) NEW ENGLAND SPUN SILK CORPORATION, Boston and Newton Upper Falls, Mass., and New York, N. Y. Filed Feb. 15. 1922.

Nespun

Particular description of goods.—Spun Silk Yarns.
Claims use since Nov. 18, 1921.

Ser. No. 159,375. (CLASS 43. THREAD AND YARN.) NEW ENGLAND SPUN SILK CORPORATION, Boston and Newton Upper Falls, Mass., and New York, N. Y. Filed Feb. 15. 1922.



Particular description of goods.—Spun Silk Yarns.
Claims use since Nov. 18, 1921.

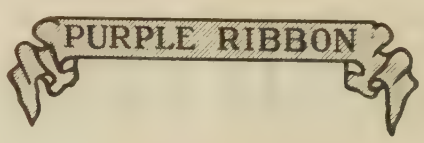
Ser. No. 159,377. (CLASS 43. THREAD AND YARN.) NEW ENGLAND SPUN SILK CORPORATION, Boston and Newton Upper Falls, Mass., and New York, N. Y. Filed Feb. 15. 1922.

Particular description of goods.—Spun Silk Yarns.
Claims use since Nov. 18, 1921.

Ser. No. 159,378. (CLASS 43. THREAD AND YARN.) NEW ENGLAND SPUN SILK CORPORATION, Boston and Newton Upper Falls, Mass., and New York, N. Y. Filed Feb. 15, 1922.

The lines shown in the drawing indicate the color blue.
Particular description of goods.—Spun Silk Yarns.
Claims use since Nov. 18, 1921.

Ser. No. 159,379. (CLASS 43. THREAD AND YARN.) NEW ENGLAND SPUN SILK CORPORATION, Boston and Newton Upper Falls, Mass., and New York, N. Y. Filed Feb. 15, 1922.



The lines shown in the drawing indicate the color blue.
Particular description of goods.—Spun Silk Yarns.
Claims use since Nov. 18, 1921.

Ser. No. 159,380. (CLASS 43. THREAD AND YARN.) NEW ENGLAND SPUN SILK CORPORATION, Boston and Newton Upper Falls, Mass., and New York, N. Y. Filed Feb. 15, 1922.

The lines shown in drawing indicate the color brown.
Particular description of goods.—Spun Silk Yarns.
Claims use since Nov. 18, 1921.

Ser. No. 159,381. (CLASS 43. THREAD AND YARN.) NEW ENGLAND SPUN SILK CORPORATION, Boston and Newton Upper Falls, Mass., and New York, N. Y. Filed Feb. 15, 1922.

The lines shown in drawing indicate the color orange.
Particular description of goods.—Spun Silk Yarns.
Claims use since Nov. 18, 1921.

Ser. No. 159,382. (CLASS 43. THREAD AND YARN.) NEW ENGLAND SPUN SILK CORPORATION, Boston and Newton Upper Falls, Mass., and New York, N. Y. Filed Feb. 15, 1922.

The lines shown in the drawing indicate the color green.
Particular description of goods.—Spun Silk Yarns.
Claims use since Nov. 18, 1921.

Ser. No. 159,383. (CLASS 43. THREAD AND YARN.) NEW ENGLAND SPUN SILK CORPORATION, Boston and Newton Upper Falls, Mass., and New York, N. Y. Filed Feb. 15, 1922.

The lines in drawing indicate the color yellow.
Particular description of goods.—Spun Silk Yarns.
Claims use since Nov. 18, 1921.

Ser. No. 159,384. (CLASS 43. THREAD AND YARN.) NEW ENGLAND SPUN SILK CORPORATION, Boston and Newton Upper Falls, Mass., and New York, N. Y. Filed Feb. 15, 1922.

The lines shown in drawing indicate the color red.
Particular description of goods.—Spun Silk Yarns.
Claims use since Nov. 18, 1921.

Ser. No. 159,563. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) CENTRAL WHEEL COMPANY, Sturgis, Mich. Filed Feb. 20, 1922.

Particular description of goods.—Children's Velocipedes.
Claims use since June 1, 1921.

Ser. No. 160,794. (CLASS 43. THREAD AND YARN.) THE CLARK THREAD COMPANY, Newark, N. J. Filed Mar. 17, 1922. Under ten-year proviso.

Particular description of goods.—Thread and Yarn.
Claims use since 1850.

Ser. No. 161,388. (CLASS 41. CANES, PARASOLS, AND UMBRELLAS.) W. N. STEVENSON & CO., INC., New York, N. Y. Filed Mar. 28, 1922.

Particular description of goods.—Umbrellas and Parasols.
Claims use since Mar. 1, 1922.

TRADE-MARK REGISTRATIONS GRANTED

[ACT OF FEBRUARY 20, 1905.]

MAY 2, 1922.

154,764. AUTOMOBILES, MOTOR CARS, MOTOR TRUCKS, AND PARTS THEREOF. DURANT MOTOR COMPANY OF NEW YORK, INC., New York, N. Y.
Filed November 25, 1921. Serial No. 155,872. PUBLISHED JANUARY 31, 1922.

154,765. ANOINTING OIL AND HAIR RESTORATIVE. NELLIE S. KITCHENS, Los Angeles, Calif.
Filed October 20, 1921. Serial No. 154,370. PUBLISHED JANUARY 31, 1922.

154,766. MACHINE FORGING HAMMERS AND METAL AND WOOD LATHES. LITTLE GIANT COMPANY, Mankato, Minn.
Filed May 9, 1921. Serial No. 147,436. PUBLISHED SEPTEMBER 6, 1921.

154,767. MEDICINE USED IN THE TREATMENT OF CONSTIPATION AND LIVER COMPLAINT. JOHN W. ROGERS, Washington, D. C.
Filed December 7, 1921. Serial No. 156,417. PUBLISHED JANUARY 3, 1922.

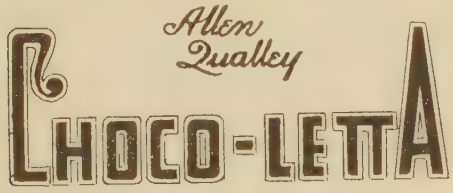
TRADE-MARK REGISTRATIONS GRANTED

[ACT OF MARCH 19, 1920, SEC. 1 (b)].

MAY 2, 1922.

THESE REGISTRATIONS ARE NOT SUBJECT TO OPPOSITION.

154,768. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALLEN-QUALLEY COMPANY, St. Paul, Minn. Filed Oct. 8, 1918. Serial No. 113,619.



Particular description of goods.—Candy.
Claims use since Aug. 22, 1918.

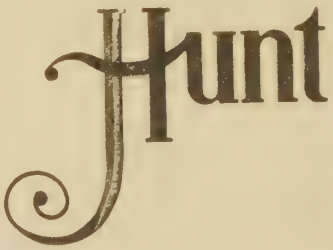
154,769. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHARLES L. BRUSH, San Francisco, Calif. Filed Jan. 20, 1920. Serial No. 127,354.

Particular description of goods.—Candy Sandwiches.
Claims use since Dec. 11, 1919.

154,770. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DAIRY ASSOCIATION CO., INC., Lyndonville, Vt. Filed Dec. 13, 1921. Serial No. 156,621.

Particular description of goods.—A Preparation for the Treatment of Diseases of the Udder and Teats on Cows, Such as Caked Bag, Sore Teats, Bunches, Chapping, Cuts, Scratches, Swellings, and Inflammation. This Balm is Also Beneficial in the Treatment of Cuts, Sores, and Abrasions of Any Kind on Other Animals and May Also be Used for Human Beings.
Claims use since 1897.

154,771. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HUNT BROTHERS PACKING COMPANY, San Francisco, Calif. Filed Jan. 3, 1921. Serial No. 141,776.



Particular description of goods.—Canned Fruits, Canned Vegetables, Canned Tuna Fish, and Canned Preserves.
Claims use on canned fruits, canned vegetables, and canned preserves since August, 1909, and on canned tuna fish since 1913.

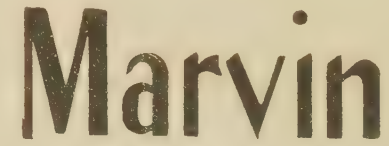
154,772. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HENRY MAILLARD INC., New York, N. Y. Filed Sept. 2, 1921. Serial No. 152,515.

Particular description of goods.—Confections—Namely, Chocolates.
Claims use since Dec. 3, 1913.

154,773. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CARL MANAS, New York, N. Y. Filed Oct. 1, 1921. Serial No. 153,612.

Particular description of goods.—Malted Milk.
Claims use since May, 1915.

154,774. (CLASS 39. CLOTHING.) MARVIN SHAW & CO., New York, N. Y. Filed Jan. 11, 1922. Serial No. 157,780.



Particular description of goods.—Children's and Misses' Dresses.
Claims use since November, 1918.

LABELS

REGISTERED MAY 2, 1922.

24,292.—*Title:* "CLEANBRIGHT WASHING TABLETS." (For Washing Tablets.) CHARLES F. BENDER, St. Louis, Mo. Filed February 20, 1922.

24,293.—*Title:* "KREMOLA." (For Face Creams.) DR. C. H. BERRY COMPANY, Chicago, Ill. Filed December 7, 1921.

24,294.—*Title:* "CRESCENT BRAND." (For Sardines.) F. E. BOOTH COMPANY, San Francisco, Calif. Filed July 20, 1921.

24,295.—*Title:* "FRIENDLY TIP." (For Cigars.) MAX E. BULKA, Chicago, Ill. Filed January 14, 1922.

24,296.—*Title:* "CUBAN SAMPLES." (For Cigars.) COLE LITHOGRAPHING AND PRINTING CO., Chicago, Ill. Filed March 11, 1922.

24,297.—*Title:* "MANNA BREAD." (For Bread.) CROUCH & PLASSMAN, Bridgeport, Conn. Filed January 26, 1922.

24,298.—*Title:* "ANZA THE CULTURE RIPENED COFFEE." (For Coffee.) CULTURED COFFEE COMPANY OF AMERICA, Detroit, Mich. Filed December 20, 1921.

24,299.—*Title:* "DAN-DOO." (For Containers for a Massage Cream for Treatment of Dandruff, Blackheads, Eczema, and Pimples of Skin and Scalp.) THE DAN-DOO CO., Kansas City, Mo. Filed January 30,1922.

24,300.—*Title:* "EVERLASTIK SPORT COAT." (For Sweaters.) ECLIPSE MILLS COMPANY, INC., Philadelphia, Pa. Filed February 2, 1922.

24,301.—*Title:* "SPEED." (For Boxes Containing a Corn, Wart, and Mole Remedy.) GLEN T. EDWARDS, San Francisco, Calif. Filed February 15, 1922.

24,302.—*Title:* "'Lancelette.'" (For Display Cards for Jewelry.) THE C. J. FOX COMPANY, Providence, R. I. Filed November 29, 1921.

24,303.—*Title:* "SANDWICH BREAD." (For Bread.) WILLIAM FREIHOFER, Philadelphia, Pa. Filed March 11, 1922.

24,304.—*Title:* "DEL MONTE." (For Soft-Collar Pins.) JOSEPH GOLDSMITH, Jr., Chicago, Ill. Filed March 13, 1922.

24,305.—*Title:* "SERVED AS BREAD." (For Cartons Containing Crackers.) THE GREEN & GREEN COMPANY, Dayton, Ohio. Filed February 20, 1922.

24,306.—*Title:* "HUNTS SUPREME." (For Canned Peaches.) HUNT BROTHERS PACKING COMPANY, San Francisco, Calif. Filed January 3, 1921.

24,307.—*Title:* "KING KWALITY KOFFEE." (For Coffee.) THE KING KOFFEE KOMPANY, Indianapolis, Ind. Filed January 10, 1922.

24,308.—*Title:* "DURABLE AS GRANDMA'S KNITTING." (For Sweaters.) KLING BROS. & CO., INC., Chicago, Ill. Filed February 14, 1922.

24,309.—*Title:* "SAFETY FIRST." (For Kansas Hard-Wheat Flour.) THE LINDSBORG MILLING & ELEVATOR COMPANY, Lindsborg, Kans. Filed March 8, 1922.

24,310.—*Title:* "CARUSO." (For Olive Oil.) RAFFAELE MARTORELLI, New York, N. Y. Filed December 7, 1921.

24,311.—*Title:* "THE SANITARY TALCUM POWDER DISPENSER." (For Talcum-Powder Dispensers.) OLAFSON-COHEN-ANDERSON MFG. CO. INC., St. Paul, Minn. Filed July 25, 1921.

24,312.—*Title:* "ICEBERG ICE CREAM BAR." (For Ice Cream and Ice-Cream Confections.) L. V. ORSINGER, La Salle, Ill. Filed February 20, 1922.

24,313.—*Title:* "AVANTI." (For Boxes Containing Cigars.) PARODI CIGAR CO. INC., Jersey City, N. J. Filed March 18, 1922.

24,314.—*Title:* "PATRICK'S MENTHO-MUSTARD." (For Ointment.) J. K. PATRICK, Athens, Ga. Filed March 15, 1922.

24,315.—*Title:* "PRIDE OF GEORGIA SWEETS." (For Crates and Other Receptacles Used in Shipping Selected Sweet Potatoes.) PLANTERS PRODUCTS COMPANY, Atlanta and Montezuma, Ga. Filed January 18, 1922.

24,316.—*Title:* "CUPID BREAD." (For Bread.) ROBERTSON PAPER CO., INC., Bellows Falls, Vt. Filed January 20, 1922.

24,317.—*Title:* "INSTANTANEOUS METAL POLISH." (For Bottles Containing a Liquid Metal Polish.) WILLIAM H. SALISBURY, Los Angeles, Calif. Filed June 24, 1921.

24,318.—*Title:* "BUTTER KRUST." (For Bread.) SANIWAX PAPER CO., Kalamazoo, Mich. Filed March 16, 1922.

24,319.—*Title:* "LOOK NEW SIMON-1-POLISH." (For Bottles of Polish for Silver, Brass, and Other Metals.) ISSOR SIMON, Wilkes-Barre, Pa. Filed January 3, 1921.

24,320.—*Title:* "CAROLINA BRAND." (For Sweet Potatoes.) SOUTH CAROLINA SWEET POTATO ASSOCIATION, Florence, S. C. Filed March 13, 1922.

24,321.—*Title:* "ARCTIC ICE CREAM BAR." (For Chocolate-Coated Confection Bars.) JOHN L. STRONG, Sioux City, Iowa. Filed February 21, 1922.

24,322.—*Title:* "CONEY ISLAND ICE CREAM BAR." (For Chocolate-Coated Confection Bars.) JOHN L. STRONG, Sioux City, Iowa. Filed February 21, 1922.

24,323.—*Title:* "MOOSE." (For Trousers.) LINCOLN G. TITUS, Cleveland, Ohio. Filed March 10, 1922.

24,324.—*Title:* "O-SO-CLEAN." (For Cleaning White-Enamel Woodwork, Porcelain, Marble, Glass, Etc.) UNIVERSAL PRODUCTS CO., Los Angeles, Calif. Filed March 15, 1922.

24,325.—*Title:* "HOMELIKE." (For Cake.) WARD BAKING COMPANY, New York, N. Y. Filed March 14, 1922.

24,326.—*Title:* "ENCHANTMENT LINEN." (For Boxes of Stationery.) WHITE & WYCKOFF MFG. CO., Holyoke, Mass. Filed September 30, 1921.

24,327.—*Title:* "HOLLAND FABRIC FINISH." (For Boxes of Stationery.) WHITE & WYCKOFF MFG. CO., Holyoke, Mass. Filed September 30, 1921.

24,328.—*Title:* "DE PREE QUALITY LAWN." (For Boxes of Stationery.) WHITE & WYCKOFF MFG. CO., Holyoke, Mass. Filed September 30, 1921.

24,329.—*Title:* "PIERRETTA." (For Boxes of Stationery.) WHITE & WYCKOFF MFG. CO., Holyoke, Mass. Filed September 30, 1921.

PRINTS

REGISTERED MAY 2, 1922

6,084.—*Title:* "THE NIGHTMARE." (For Advertising Purposes for Jell-O, a Dessert Preparation.) THE GENESEE PURE FOOD COMPANY, Le Roy, N. Y. Filed March 13, 1922.

6,085.—*Title:* "TREASURE." (For Advertising Purposes for Coffee.) HILLS BROS., San Francisco, Calif. Filed March 20, 1922.

6,086.—*Title:* "END OF THE HUNT." (For Advertising Purposes for Coffee.) HILLS BROS., San Francisco, Calif. Filed March 20, 1922.

6,087.—*Title:* "THE CHOICE OF HOSTS." (For Advertising Purposes for Coffee.) HILLS BROS., San Francisco, Calif. Filed March 20, 1922.

6,088.—*Title:* "DETROIT CREAMERY VELVET BRAND ICE CREAM." (For Advertising Purposes for Ice Cream.) FREDERICK C. MATHEWS COMPANY, Detroit, Mich. Filed January 3, 1922.

6,089.—*Title:* "CHERRIES." (For Advertising Purposes for Chocolate-Covered Cherries in Cream.) MILWAUKEE PAPER BOX COMPANY, Milwaukee, Wis. Filed March 11, 1922.

6,090.—*Title:* "BANNER BRUSH." (For Advertising Purposes for Brushes.) MILWAUKEE PAPER BOX COMPANY, Milwaukee, Wis. Filed March 11, 1922.

6,091.—*Title:* "THE SANITARY TALCUM POWDER DISPENSER." (For Advertising Purposes for Packages Containing Talcum-Powder Pads and Talcum-Powder-Pad Holders.) OLAFSON - COHEN - ANDERSON MFG. CO. INC., St. Paul, Minn. Filed July 25, 1921.

6,092.—*Title:* "DAINTEE CORN HOLDER." (For Advertising Purposes for a Corn Holder.) W. L. SHAUGHNESSY CO. INC., Gardner, Mass. Filed March 11, 1922.

6,093.—*Title:* "'DINTY'S' SHEEP COAT." (For Advertising Purposes for Sheep-Lined Coats.) THE SIMON COAT CO., Boston, Mass. Filed April 14, 1921.

6,094.—*Title:* "TIGER-FOOT." (For Advertising Purposes for Tires.) THE STANDARD TIRE COMPANY, Willoughby, Ohio. Filed June 18, 1920.

6,095.—*Title:* "INDESTRUCTO." (For Advertising Purposes for Varnish.) WEST VARNISH CO., Boston, Mass. Filed February 15, 1922.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

HERNANDEZ-MEJIA v. KELLEY.

No. 1429. Decided January 3, 1922.

1. PATENTS—INTERFERENCE—EFFECT OF FILING AFTER ISSUANCE OF PATENT TO SENIOR PARTY.

The rule that where a patent has issued to the senior party before the junior party files his application, the latter must prove beyond a reasonable doubt the facts necessary to overcome the patent, affirmed. (Following *Braun* v. *Wiegand*, 49 App. D. C., 193; 262 Feb., 647.)

2. SAME—SAME—BURDEN OF PROOF.

The testimony in an interference proceeding considered and found the junior party had failed to overcome the burden of proof resting upon him by showing either conception or reduction to practice prior to his opponent's filing date.

3. SAME—SAME—PATENTABILITY OF THE CLAIMS.

Where it is contended that the substance of the invention in interference is disclosed in a prior patent and no invention would be involved by bringing what is there disclosed into harmony with the claims in issue, *Held*, this raises the question of the patentability of the claims, which is not permissible in an interference proceeding. (Following *Wintroath* v. *Chapman*, 47 App. D. C., 428; 248 O. G., 1004; 1918 C. D., 154.)

4. SAME—SAME—LEAVE TO AMEND PRELIMINARY STATEMENT.

The rule that the granting or refusal of leave to amend a preliminary statement is within the discretion of the Commissioner and his decision will not be reviewed on appeal unless there is a palpable abuse of power, affirmed. (Following *Cross* v. *Phillips*, 14 App. D. C., 228; 87 O. G., 1399; 1899 C. D., 342, and *Fowler* v. *Boyce*, 27 App. D. C., 55; 122 O. G., 1726; 1906 C. D., 659.)

Mr. W. L. Edmonston and *Mr. Benj. Roman* for Hernandez-Mejia.

Mr. Melville Church and *Mr. J. S. Wooster* for Kelley.

SMYTH, *C. J.*:

This is an interference between an application and a patent. It relates to the art of making and coloring motion-picture films to reproduce the objects in their natural colors. Eighteen counts are involved. Counts 1 and 18 are typical.

Count 1. The method of producing a double-colored photographic transparency which consists in printing images in registry on opposite sides of a double-sensitized transparent base, developing and fixing said images, treating one of said images to render it capable of absorbing dye and transmitting light, dyeing said image, washing and drying the entire base, applying a protective coating to the dyed side, treating the other image to render it dye absorbent and capable of transmitting light, dyeing with a second color, and washing and drying to complete the transparency.

Count 18. A double-coated perforated photographic transparency having a record on each side, each of said records being registered horizontally with a certain perforation as a standard, and vertically with a certain other perforation as a standard, the records on said sides being colored in different colors.

A patent was issued to Kelley March 12, 1918, on an application filed July 26, 1917. Hernandez-Mejia's application was filed June 25, 1918. The Examiner of Interferences awarded all the claims to Hernandez-Mejia except four, which he gave to Kelley. The latter appealed, and the Board of Examiners-in-Chief held that he was entitled to all the claims. This action was affirmed by the Assistant Commissioner.

It is well established that where an interference is declared between a patent and an application filed after the issuance of the patent, the applicant can not succeed unless he proves beyond a reasonable doubt the facts necessary to overcome the patent. (*Braun* v. *Wiegand*, 49 App. D. C., 193; 262 Fed., 647, and decisions there cited.)

The Assistant Commissioner found that Hernandez-Mejia was undoubtedly working in the specific art to which the invention belongs before Kelley began, and that the latter, so far as the proofs go, had no conception of the invention in issue prior to his filing date; but Hernandez-Mejia, according to the Assistant Commissioner, had failed to show even *prima facie* that he had reduced the invention to practice, or that he had even conceived it, before that date. There are references, he said, in Hernandez-Mejia's proofs to some features embodied in the claims, but there is nothing disclosing the entire process required by them. The Assistant Commissioner's conclusion is based partly on his own analysis of the testimony and partly on that of the Board of Examiners. We fully agree with him. To set out here the steps by which we arrived at this opinion would be to restate in effect what he and

the Board have said, and this would be of no practical use to anyone. Hernandez-Mejia has failed to discharge the very heavy task which the law imposed upon him with regard to the burden of proof.

Hernandez-Mejia urges that the substance of the invention is disclosed by a patent issued to him in 1916, and that the details necessary to bring what is there disclosed into harmony with the claims in issue would not require invention, but would occur to anyone skilled in the art in carrying out the processes described in his patent. This raises the question of the patentability of the claims—something which can not be done in an interference proceeding. The interference is declared on the assumption that the claims are patentable, and this assumption is not open to attack. (*Wintroath* v. *Chapman*, 47 App. D. C., 428, and cases cited; *Cowles* v. *Rody*, 49 App. D. C., 135; 261 Fed., 1015.) The Assistant Commissioner, however, went into the question quite carefully and found that the appealed claims were distinguishable from the disclosure of the earlier patent, and that Hernandez-Mejia had no conception of the specific limitations which characterize them.

The assertion that Kelley derived the invention from Hernandez-Mejia can not be upheld in view of the finding just made that the latter did not have it at the time Kelley entered the field. Hernandez-Mejia's application for leave to amend his preliminary statement so as to show that his date of reduction to practice was not in 1916 but in 1911 or 1912 was denied. This was a matter addressed to the discretion of the Commissioner, and his action will not be reviewed unless there was a palpable abuse of his power. (*Cross* v. *Phillips*, 14 App. D. C., 228; *Fowler* v. *Boyce*, 27 App. D. C., 55.) There was no such abuse. A motion to strike out certain testimony received in behalf of Kelley was overruled. Even if the testimony was improperly admitted, there was no prejudicial error, for it had no tendency to injure Hernandez-Mejia's case.

The decision of the commissioner is affirmed.

Affirmed.

Mr. Justice HITZ, of the Supreme Court of the District of Columbia, sat in the place of Mr. Justice VAN ORSDEL in the hearing and determination of this appeal.

ADJUDICATED PATENTS.

(U. S. D. C. Pa.) The Johnson patents, No. 973,200, No. 1,281,019, and No. 1,298,346, for improvements in union garments, *Held* void for lack of invention. *Johnson* v. *Lit Bros.*, 278 Fed. Rep., 279.

(U. S. C. C. A. N. Y.) The Kennedy patent, No. 1,019,482, claims 1–4, 7, and 8, for method and means of charging storage batteries, not infringed. *Electro-Dynamic Co.* v. *U. S. Light & Heat Corporation*, 278 Fed. Rep., 80.

(U. S. D. C. N. Y.) The Schleit patent, No. 1,174,525, for draft regulator for water heaters, *Held* valid and infringed. *W. A. Schleit Mfg. Co.* v. *Syracuse Radiator Co.*, 278 Fed. Rep., 305.

(U. S. D. C. R. I.) The Nivois patent, No. 1,232,073, for cigarette case, *Held* valid and infringed. *Nivois* v. *Metal Products Co.*, 278 Fed. Rep., 385.

PATENT SUITS.

[Notices under section 4921, Revised Statutes, as amended February 18, 1922.]

787,814, J. D. Wolf, Separation of metals from their ores; suit filed April 10, 1922, U. S. D. C., S. D. Ohio, (W. Div.), Doc. 255, *Wolf Mineral Process Corp.* v. *Eagle Pitcher Lead Co.;* suit filed April 11, 1922, U. S. D. C., S. D. N. Y., Doc. E. 23–282, *Wolf Mineral Process Corp.* v. *Phelps Dodge Corp.;* suit filed April 11, 1922, U. S. D. C., S. D. N. Y., Doc. E. 23–283, *Wolf Mineral Process Corp.* v. *Kennecott Copper Co.;* suit filed April 10, 1922, U. S. D. C., Del., Doc. 466, E., *Wolf Mineral Process Corp.* v. *Belmont Wagner Co.;* suit filed April 10, 1922, U. S. D. C., Del., Doc. 467 E., *Wolf Mineral Process Corp.* v. *Federal Mining & Smelting Co.;* suit filed April 10, 1922, U. S. D. C., Del., Doc. 468 E., *Wolf Mineral Process Corp.* v. *Calaveras Copper Co.;* suit filed April 10, 1922, U. S. D. C., Del., Doc. 469 E., *Wolf Mineral Process Corp.* v. *Consolidated Coppermines Co.;* suit filed April 10, 1922, U. S. D. C., Del., Doc. 470 E., *Wolf Mineral Process Corp.* v. *Federal Lead Co.;* suit filed April 10, 1922, U. S. D. C., Del., Doc. 471, *Wolf Mineral Process Corp.* v. *Miami Copper Co.;* suit filed April 10, 1922, U. S. D. C., Del., Doc. 472 E., *Wolf Mineral Process Corp.* v. *New Cornelia Copper Co.;* suit filed April 13, 1922, U. S. D. C., Del., Doc. 473 E., *Wolf Mineral Process Corp.* v. *Belmont Wagner Mining Co.;* suit filed April 14, 1922, U. S. D. C., Del., Doc. 474 E., *Wolf Mineral Process Corp.* v. *Belmont Shawmut Mining Co.;* suit filed April 10, 1922, U. S. D. C., Me., Doc. 834, *Wolf Mineral Process Corp.* v. *Ray Consolidated Copper Co.;* suit filed April 10, 1922, U. S. D. C., Me., Doc. 835, *Wolf Mineral Process Corp.* v. *American Zinc Lead & Smelter Co.; Wolf Mineral Process Corp.* v. *American Zinc Co. of Tenn.;* suit filed April 10, 1922, U. S. D. C., Me., Doc. 837, *Wolf Mineral Process Corp.* v. *Chino Copper Co.;* suit filed April 10, 1922, U. S. D. C., Me., Doc. 839, *Wolf Mineral Process Corp.* v. *Magma Copper Co.;* snit filed April 10, 1922, U. S. D. C., Me., Doc. 839, *Wolf Mnieral Process Corp.* v. *Nevada Consolidated Copper Co.;* suit filed April 12, 1922, U. S. D. C., Colo., Doc. 7330, *Wolf Mineral Process Corp.* v. *Colorado Superior Mining Co.;* suit filed April 12, 1922, U. S. D. C., Colo., Doc. 7331, *Wolf Mineral Process Corp.* v. *The Smuggler Union Mining Co.*

787,814, J. D. Wolf, Separation of metals from their ores; 835,120, H. L. Sulman, H. F. Kirkpatrick-Picard and J. Ballot, Ore concentration; suit filed April 10, 1922, U. S. D. C., Md., Doc. 286–E., *Wolf Mineral Process Corp.* v. *Minerals Separation North American Corp.*

803,066, B. F. Orewiler, Garment supporter, suit filed February 25, 1922, U. S. D. C., Ct., Doc. 1585, *The American Buckle Co.* v. *The Scoville Mfg. Co.*

811,859, A. L. Marsh, Electric resistance material, suit filed April 12, 1922, U. S. D. C., S. D. N. Y., Doc. E. 23-288, *Hoskins Mfg. Co. & General Electric Co,* v. *Bencoe Exporting & Importing Co.*

845,747, 908,731, W. R. Bonham, Calculating machines, suit filed March 8, 1922, U. S. D. C., W. D. Mich., Doc. 1959, *Frank C. Pangborn* v. *R. Wallace Hook & The Calculator Corp.*

890,968, J., M. L., & J. A. Davey, Process of treating and dressing a bruise or wound in the trunk or live branch of a live tree; 958,478, W. E. Davey, Process of reinforcing trees, suit filed February 22, 1922, U. S. D. C., Ct., Doc. 1583, *The Davey Tree Expert Co.* v. *C. T. Baptiste.*

922,105, E. N. Drew, Hoisting apparatus, suit filed March 8, 1922, U. S. D. C., N. D. Ohio, (E. Div.), Doc. 705. *E. N. Drew* v. *The Falcon Steel Co.*

972,727, F. B. Stockmann, Agitators or stirrers for paint barrels and the like, suit filed July 20, 1921, U. S. D. C., S. D. Ohio, (W. Div.), Doc. 233, *Margaret Frelinger* v. *C. M. Mockbee Co.*

983,994, N. T. Harrington, and 984,032, J. B. Seager, Carbureters, suit filed April 10, 1922, U. S. D. C., S. D. N. Y., Doc. E. 23-280, *J. S. Seager, C. S. Thomas & C. B. Camp* v. *Zorzi Corp.*

1,035,239, D. A. Rosenthal, Dental broach and holder, suit filed March 24, 1922, U. S. D. C., W. D. Pa., Doc. 638 (May term, 1922), *D. A. Rosenthal* v. *H. Caplan.*

1,090,776, H. H. Boyce, Indicating system and apparatus for internal combustion engines; 1,275,654, Means for motor-propelled vehicles; 1,311,152, Means for indicating the condition of internal-combustion engines, suit filed April 11, 1922, U. S. D. C., S. D. N. Y., Doc. E. 23-281, *H. H. Boyce & Moto Meter Co.* v. *Macmaster & Lindner.*

1,173,290, E. A. McMillin, Cloth boards, suit filed March 24, 1922, U. S. D. C., Me., Doc. 833, *E. A. McMillin Co.* v. *Androscoggin Pulp Co.*

1,178,086, C. W. Lummis, Gas producers; 1,274,176, Re. 14,548, Feeding mechanism for gas producers, suit filed April 10, 1922, U. S. D. C., N. D. Ohio (E. Div.), Doc. 717, *Morgan Const. Co.* v. *The Wellman-Seaver-Morgan Co.*

1,255,015, E. A. W. Jefferies; 1,252,642. H. J. Ambruson, Gas producer, suit filed April 10, 1922, U. S. D. C., N. D. Ohio (E. Div.), Doc. 718, *Morgan Const. Co.* v. *The Wellman-Seaver-Morgan Co.*

1,262,860, 1,263,138, S. B. Smith, Incubators, suit filed February 23, 1922, U. S. D. C., Oreg., Doc. E. 8591, *Buckeye Incubator Co. & S. B. Smith* v. *A. E. Stone.*

1,273,108, R. B. Thompson; 1,300,854, C. McNeil, Presser foot for sewing machines, suit filed March 28, 1922, U. S. D. C., W. D. Pa., Doc. 2501, *Union Special Mach. Co.* v. *Willcox & Gibbs Sewing Mach. Co.*

1,277,587, D. B. Hill, Signal horns, suit filed March 29, 1922, U. S. D. C., N. D. Ohio (E. Div.), Doc. 713, *D. B. Hill & Magneto Horn Co.* v. *The General Phonograph Co.*

1,289,529, W. S. Overlin, Trucks, suit filed April 14, 1922, U. S. D. C., Oreg., Doc. E. 8598, *W. S. Overlin* v. *Dallas Mach. and Locomotive Works.*

1,318,864, W. U. Griffiths, Valve-actuating means for water-closet apparatus, suit filed March 16, 1922, U. S. D. C., Ct., Doc. 1589, *The Indiana Brass Co. & I X L Pump Mfg. Co.* v. *The American Pin Co.*

1,324,391, W. S. Godwin, Paving guards, suit filed April 6, 1922, U. S. D. C., N. D. Ohio (E. Div.), Doc. 716, *W. S. Godwin Co.* v. *International Steel Tire Co.*

1,341,433, W. R. Neckerman, Coin-controlled lock, suit filed March 22, 1922, U. S. D. C., N. D. Ohio (E. Div.), Doc. 711, *W. R. Neckerman* v. *Alexander Products Co.*

1,364,243, C. A. Caldwell, Steering gears, suit filed March 17, 1922, U. S. D. C., W. D. Pa., Doc. 634 (May term, 1922), *C. A. Caldwell* v. *Ford Motor Co.*

1,410,985, R. M. Beard, Electric-lighting fixtures, suit filed April 14, 1922, U. S. D. C., S. D. N. Y., Doc. E. 23-287, *R. M. Beard & Americolite Co.* v. *Panelite Co. & M. A. Elias.*

Re. 13,312, A. F. Daum, Cartridge fuses, suit filed March 28, 1922, U. S. D. C., W. D. Pa., Doc. 648 (May term, 1922), *A. F. Daum* v. *Doubleday-Hill Elect. Co.;* same, Doc. 649, (May term, 1922,) *A. F. Daum* v. *Johns-Manville, Inc.*

Re. 13,436, F. G. Perkins, Glue and method of making the same, suit filed Dec. 7, 1921, U. S. D. C., S. D. Ohio (W. Div.), Doc. 246, *Perkins Glue Co.* v. *The Breece Mfg. Co.;* J. E., J. T., & G. W. Breece; same, suit filed February 27, 1922, U. S. D C., S. D. Ohio (W. Div.), *Perkins Glue Co.* v. *The Globe Wernicke Co. & E. Z. Blagg.*

Re. 14,137, C. F. Gailor, Welded rail joints, suit filed February 20, 1922, U. S. D. C., Mid. D. Pa., Doc. 1390 (trespass), *Union Trust Co.* v. *Scranton Ry. Co.*

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 5, 1922.

Sweetser, Pembrook & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Ernest Simons Mfg. Co., of Port Chester, N. Y., for registration of a trade-mark and trade-mark registered June 27, 1899, No. 33,115, to Sweetser, Pembrook & Co., 376 Broadway, New York, N. Y., and a notice of such declaration sent by registered mail to said Sweetser, Pembrook & Co. at the said address having been returned by the post office undeliverable, notice is hereby given that unless said Sweetser, Pembrook & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

WM. A. KINNAN,
Acting Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 5, 1922.

The Smith Bros. Co., Ltd., its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Atlas Specialty Company,

Inc., of Richmond, Va., for registration of a trade-mark and trade-mark registered July 30, 1901, No. 36,835, to The Smith Bros. Co., Ltd., 510, 512, 514, 516, and 518 Poydras and 517, 519, and 521 Lafayette Streets, New Orleans, La., and a notice of such declaration sent by registered mail to said The Smith Bros. Co., Ltd., at the said address having been returned by the post office undeliverable, notice is hereby given that unless said The Smith Bros. Co., Ltd., its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

WM. A. KINNAN,
Acting Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 5, 1922.

Burnham & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Sunshine Cleansing Products Company, 2520 Market Street, Denver, Colo., for registration of a trade-mark and trade-mark registered December 24, 1895, No. 27,538, to Burnham & Co., 28 Warren Street, New York, N. Y., and a notice of such declaration sent by registered mail to said Burnham & Co. at the said address having been returned by the post office undeliverable, notice is hereby given that unless said Burnham & Co. shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

WM. A. KINNAN,
Acting Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 12, 1922.

The Palmetto Chemical Co., Inc., its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Alexander Kendrick Johnson, of 1524 Demonbaun Street, Nashville, Tenn., for registration of a trade-mark and trade-mark registered December 29, 1908, No. 72,051, to The Palmetto Chemical Co., Inc., of Aiken, S. C., and a notice of such interference sent by registered mail to The Palmetto Chemical Co., Inc., at the said address having been returned by the post office undeliverable, notice is hereby given that unless The Palmetto Chemical Co., Inc., its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

WM. A. KINNAN,
First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 12, 1922.

Henri L. Bates, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Manufacturing Company of America, of Twelfth and Hamilton Streets, Philadelphia, Pa., for registration of a trade-mark and trade-mark registered April 16, 1895, No. 26,416, to Henri L. Bates, of No. 21 Cabot Street, Portsmouth, N. H., and a notice of such interference sent by registered mail to Henri L. Bates at the said address having been returned by the post office undeliverable, notice is hereby given that unless said Henri L. Bates, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

WM. A. KINNAN,
First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 19, 1922.

Abraham Koppelberger, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Bloch Chemical Company, Inc., 67 Fifth Avenue, New York, N. Y., for registration of a trade-mark and trade-mark registered April 19, 1904, No. 42,444, to Abraham Koppelberger, 1123 Market Street, Sioux City, Iowa, and a notice of such declaration sent by registered mail to Abraham Koppelberger at the said address having been returned by the post office undeliverable, notice is hereby given that unless said Abraham Koppelberger, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

WM. A. KINNAN,
First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 25, 1922.

Clarence H. Henton, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Claude F. Osborne, 120 South Reeve Street, Hampton, Iowa, for registration of a trade-mark and trade-mark registered December 4, 1906, No. 58,077, to Clarence H. Henton, 3819 North Hermitage Avenue, Chicago, Ill., and a notice of such declaration sent by registered mail to Clarence H. Henton at the said address having been returned by the post office undeliverable, notice is hereby given that unless said Clarence H. Henton, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS E. ROBERTSON,
Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 25, 1922.

J. Osiason, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of O. D. Baker Company, 525 West Forty-fifth Street, New York, N. Y., for registration of a trade-mark and trade-mark registered February 10, 1914, No. 95,341, to J. Osiason, 154 Broadway, Bristol, Mass., and a notice of such declaration sent by registered mail to J. Osiason at the said address having been returned by the post office undeliverable, notice is hereby given that unless said J. Osiason, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS E. ROBERTSON,
Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 25, 1922.

Crystal Spring Bottling Company, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Purity Crystal Rock Mineral Spring Water Co., 4611–15 North Western Avenue, Chicago, Ill., for registration of a trade-mark and trade-mark registered October 10, 1893, No. 23,699, to Crystal Spring Bottling Co., Barnet, Vt., and a notice of such declaration sent by registered mail to Crystal Spring Bottling Co. at the said address having been returned by the post office undeliverable, notice is hereby given that unless said Crystal Spring Bottling Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS E. ROBERTSON,
Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 26, 1922.

Coast-Wide Chemical Company, Incorporated, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Frank P. Symonds, 16 Water Street, Salem, Mass., for registration of a trade-mark and trade-mark registered October 17, 1916, No. 113,491, to Coast-Wide Chemical Company, Incorporated, 74 Cortlandt Street, New York, N. Y., and a notice of such declaration sent by registered mail to Coast-Wide Chemical Company, Incorporated, at the said address having been returned by the post office undeliverable, notice is hereby given that unless said Coast-Wide Chemical Company, Incorporated, its assigns or legal representatives shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

WM. A. KINNAN,
Acting Commissioner.

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Issue of May 9, 1922.

Patents	846—No.	1,415,007 to No.	1,415,852, inclusive.
Designs	17—No.	60,932 to No.	60,948, inclusive.
Trade-Marks	79—No.	154,775 to No.	154,853, inclusive.
Labels	45—No.	24,330 to No.	24,374, inclusive.
Prints	30—No.	6,096 to No.	6,125, inclusive.
Reissues	5—No.	15,348 to No.	15,352, inclusive.
Total	1022		

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 19, 1922.

Abraham Koppelberger, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Bloch Chemical Company, Inc., 67 Fifth Avenue, New York, N. Y., for registration of a trade-mark and trade-mark registered April 19, 1904, No. 42,444, to Abraham Koppelberger, 1123 Market Street, Sioux City, Iowa, and a notice of such declaration sent by registered mail to Abraham Koppelberger at the said address having been returned by the post office undeliverable, notice is hereby given that unless said Abraham Koppelberger, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

WM. A. KINNAN,
First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 25, 1922.

Clarence H. Henton, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Claude F. Osborne, 120 South Reeve Street, Hampton, Iowa, for registration of a trade-mark and trade-mark registered December 4, 1906, No. 58,077, to Clarence H. Henton, 3819 North Hermitage Avenue, Chicago, Ill., and a notice of such declaration sent by registered mail to Clarence H. Henton at the said address having been returned by the post office undeliverable, notice is hereby given that unless said Clarence H. Henton, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS E. ROBERTSON,
Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 25, 1922.

J. Osiason, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of O. D. Baker Company, 525 West Forty-fifth Street, New York, N. Y., for registration of a trade-mark and trade-mark registered February 10, 1914, No. 95,341, to J. Osiason, 154 Broadway, Bristol, Mass., and a notice of such declaration sent by registered mail to J. Osiason at the said address having been returned by the post office undeliverable, notice is hereby given that unless said J. Osiason, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS E. ROBERTSON,
Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 25, 1922.

Crystal Spring Bottling Company, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Purity Crystal Rock Mineral Spring Water Co., 4611–15 North Western Avenue, Chicago, Ill., for registration of a trade-mark and trade-mark registered October 10, 1893, No. 23,699, to Crystal Spring Bottling Co., Barnet, Vt., and a notice of such declaration sent by registered mail to Crystal Spring Bottling Co. at the said address having been returned by the post office undeliverable, notice is hereby given that unless said Crystal Spring Bottling Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS E. ROBERTSON,
Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 26, 1922.

Coast-Wide Chemical Company, Incorporated, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Frank P. Symonds, 16 Water Street, Salem, Mass., for registration of a trade-mark and trade-mark registered October 17, 1916, No. 113,491, to Coast-Wide Chemical Company, Incorporated, 74 Cortlandt Street, New York, N. Y., and a notice of such declaration sent by registered mail to Coast-Wide Chemical Company, Incorporated, at the said address having been returned by the post office undeliverable, notice is hereby given that unless said Coast-Wide Chemical Company, Incorporated, its assigns or legal representatives shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

WM. A. KINNAN,
Acting Commissioner.

Condition of Applications Under Examination at Close of Business April 29, 1922.

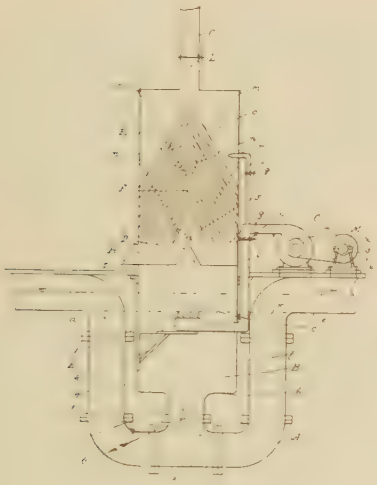
(Total number of applications waiting action, excluding Trade-Mark division, 65,969; Trade-Mark division, 8,533. Oldest new case, Mar. 1; oldest amended, Mar. 23, 1921. The dates given are 1921 except where * indicates 1922.)

Room No.	Divisions, Examiners, and subjects of inventions.	Oldest new application awaiting office action. New.	Oldest amended application awaiting office action. Amended.	No. of applications awaiting action.
314	1. LOEFFLER, F. A., Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Planting; Scattering Unloaders.	Oct. 24	Nov. 12	865
128	2. BALDWIN, M., Bee Culture; Dairy; Medicines; Pneumatics; Preserving; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco; Trees, Plants, and Flowers.	May 24	July 5	1,830
175	3. RICH, WM. J., Electric Heating and Rheostats; Electrochemistry; Heating; Metal Founding; Metallurgical Apparatus; Metallurgy; Metal Treatment; Plastic Metal Working.	Aug. 29	May 19	867
234	4. MERRITT, A. D., Conveyers; Conveyers, Fluid Current; Conveyers, Power Driven; Excavating; Handling—Hand and Hoist-Line Implements; Hoisting; Material or Article Handling; Pushing and Pulling Implements; Railway Mail Delivery; Traversing Hoists.	July 7	Dec. 12	1,505
167	5. MACNAB, J. F., Bookmaking; Books, Strips, and Leaves; Harvesters; Jewelry; Manifolding; Music; Printed Matter; Tying Cords or Strands.	June 30	July 16	1,071
318	6. LEWERS, A. M., Bleaching and Dyeing; Chemicals; Explosive, Pyrotechnic, and Match Compositions; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Substance Preparation.	Aug. 6	*Jan. 3	1,309
312	7. JARBOE, C. G., Games and Toys; Optics; Photography; Velocipedes	July 30	Oct. 24	2,379
133	8. CLIFT, J. W., Beds; Chairs and Seats; Flexible-Sheet-Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	*Feb. 15	*Mar. 15	724
221	9. TRYON, F. M., Air and Gas Pumps; Hydraulic Motors; Injectors and Ejectors; Motors, Fluid; Motors, Fluid Current; Pumps.	Apr. 2	*Jan. 28	1,061
235	10. MITCHELL, T. H., Land Vehicles; Land Vehicles, Animal Draft Appliances; Land Vehicles—Bodies and Tops; Land Vehicles—Dumping; Land Vehicles, Wheel Substitutes; Motor Vehicles.	Oct. 3	*Feb. 27	1,112
154	11. ARMSTRONG, H. C., Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Dec. 5	*Jan. 24	560
322	12. PIERCE, P. P., Machine Elements	Oct. 1	Dec. 17	1,154
329	13. NIXON, G. A., Bolt, Nail, Nut, Rivet, and Screw Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Turning.	Apr. 25	Dec. 27	1,933
323	14. BRUMBAUGH, N. J., Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire Working.	July 11	*Feb. 27	900
308	15. REDROW, W. L., Bread, Pastry, and Confection Making; Glass; Laminated Fabrics and Analogous Manufactures; Paper Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	May 19	June 29	1,976
112	16. BACKUS, C. D., Radiant Energy; Telegraphy; Telephony	May 3	May 7	2,105
307	17. RAFTER, G. S., Coating, Label Pasting, and Paper Hanging; Nut and Bolt Locks; Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet-Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	Aug. 4	Nov. 26	1,342
229	18. PORTER, M. E., Liquid Heaters and Vaporizers; Motors, Expansible-Chamber Type; Power Plants; Speed-Responsive Devices; Steam and Vacuum Pumps.	Mar. 1	May 4	2,269
236	19. GLASCOCK, E. S., Automatic Temperature and Humidity Regulation; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels; Rheostats and Humidostats.	May 12	Aug. 9	1,233
179	20. WRIGHT, H., Artificial Body Members; Miscellaneous Hardware; Closure Fasteners; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Nov. 1	Nov. 3	1,810
212	21. THURBER, W. L., Continuous-Strip Feeding; Textiles: Textiles, Braiding, Netting, or Lace Making; Textiles, Cloth Finishing; Textiles, Fiber Preparation; Textiles, Knitting; Textiles, Spinning; Textiles, Twisting or Twining; Textiles, Weaving; Winding and Reeling.	Apr. 21	Sept. 19	951
249	22. COLWELL, J. H., Aeronautics; Firearms; Ordnance; Ammunition and Explosive Devices; Ammunition and Explosive-Charge Making.	Sept. 2	Dec. 27	520
217	23. GROESBECK, W. D., Acoustics; Coin Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	Mar. 28	Sept. 21	805
144	24. DURAS, C. O., Apparel; Apparel Apparatus; Garment Supporters; Sewing Machines	July 6	Nov. 12	1,188
315	25. LIGHTFOOT, J. H., Agitating; Butchering; Centrifugal-Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	*Jan. 31	*Feb. 17	425
105	26. HODGES, J. S., Electricity, Generation; Motive Power; Prime-Mover Dynamo Plants	Aug. 20	Oct. 4	975
214	27. ANDERSON, L. S., Abrading; Brush, Broom, and Mop Making; Brushing, Scrubbing, and General Cleaning; Laundry; Washing Apparatus.	Aug. 2	Sept. 12	1,885
225	28. BENSON, A. R., Internal-Combustion Engines	Aug. 10	July 22	1,763
147	29. MORRIS, B. N., Boring and Drilling; Button Making; Chucks or Sockets; Coopering; Tool-Handle Fastenings; Wheelwright Machines; Wood Sawing; Wood Turning; Woodworking; Woodworking Tools.	July 8	*Feb. 28	635
152	30. SULLIVAN, M. R., Illuminating Burners; Illumination; Liquid and Gaseous Fuel Burners; Typewriting Machines.	Oct. 19	*Feb. 4	1,408
172	31. HOLMES, W. N., Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Fuel and Igniting Devices; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	May 2	July 2	2,155
278	32. BANCROFT, J. F., Gas and Liquid Contact Apparatus; Heat Exchange	July 1	*Jan. 2	1,077
70	33. COWLES, W. A., Bridges; Hydraulic and Earth Engineering; Masonry and Concrete Structures; Metallic Building Structures; Roads and Pavements; Roofs.	Sept. 16	Nov. 15	971
304	34. SIMPSON, G. R., Electricity-Transmission to Vehicles; Pneumatic Dispatch; Railways; Railway Rolling Stock; Railway Switches and Signals; Railways, Surface Track; Railway Wheels and Axles; Store Service; Track Sanders; Vehicle Fenders.	*Jan. 30	*Feb. 23	427
52	35. REYNOLDS, E. C., Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals and Indicators; Toilet.	Nov. 8	*Feb. 7	899
204	36. MORTON, G. L., Automatic Weighers; Driers; Geometrical Instruments; Measuring Instruments; Force Measuring.	Nov. 4	Oct. 25	1,772
107	37. TAYLOR, E. C., Electricity, Circuit Makers and Breakers	June 16	June 9	1,963
378	38. IDE, G. R., Animal Husbandry; Earth Boring; Fishing, Trapping, and Vermin Destroying; Mining, Quarrying, and Ice Harvesting; Stationery; Stoneworking; Wells.	Sept. 28	Sept. 29	1,615
220	39. COWLES, A. W., Fluid-Pressure Regulators; Joint Packings; Multiple Valves; Packed Shaft or Rod Joints; Pipe Joints or Couplings; Rod Joints or Couplings; Valved Pipe Joints or Couplings; Valves; Water Distribution.	Mar. 23	May 5	2,262
273	40. OBERLIN, J. J., Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Receptacles; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Apr. 30	July 14	2,947
125	41. BROWN, J. I., Land Vehicles, Wheels and Axles; Resilient Tires and Wheels	Nov. 23	Nov. 8	728
114	42. CUTTING, H. O., Electrical Conduits and Housings; Electric Signaling; Electric Lamps	June 10	May 24	1,884
382	43. HOPKINS, F. M., Baths and Closets; Dispensing; Dispensing Beverages; Electricity, Medical and Surgical; Fire Extinguishers; Sewerage; Surgery; Liquid Separation or Purification.	June 3	July 25	1,892
253	44. SHAFFER, C. H., Air Guns, Catapults, and Targets; Boats and Buoys; Filling and Closing Portable Receptacles; Marine Propulsion; Railway Draft Appliances; Refrigeration; Ships.	Aug. 10	*Mar. 9	491
379	45. GILES, A. H., Journal Boxes, Pulleys, and Shafting; Lubrication; Motors; Spring Devices	Aug. 22	Oct. 22	1,216
332	46. WOLCOTT, C. L., Curtains, Shades, and Screens; Educational Appliances; Fire Escapes; Ladders; Fluid Sprinkling, Spraying, and Diffusing; Paper Files and Binders; Wooden Buildings; Scaffolds.	Aug. 31	Nov. 1	1,322
264	47. BARKER, H., Brakes; Clutches and Power Stop Control; Elevators; Fluid-Pressure Brake and Analogous Systems.	June 15	Oct. 20	1,310
118	48. ROEPKE, O. B., Electricity Conductors; Electricity, General Applications	Mar. 2	Mar. 23	2,478
163	TRADE-MARKS, DESIGNS, LABELS AND PRINTS: T. L. MEAD, JR.			
	Trade-Marks	Sept. 12	Jan. 30	5,726
	Designs	Sept. 8	Dec. 3	2,668
	Labels and Prints	Apr. 8	Apr. 15	139

PATENTS

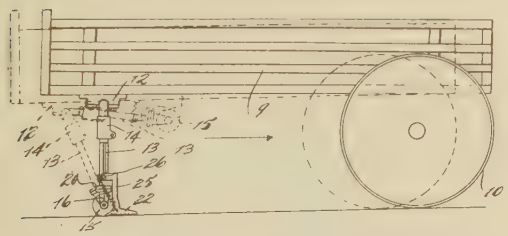
GRANTED MAY 9, 1922.

1,415,007. SEWAGE PURIFIER. JOHN P. BALL, Chicago, Ill. Filed Oct. 29, 1920, Serial No. 420,438. Renewed Mar. 8, 1922. Serial No. 542,199. 5 Claims. (Cl. 210—3.)



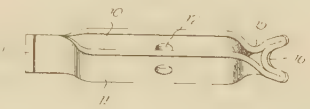
1. In sewage purifiers and similar devices, the combination with a casing having an upper condensing chamber and a lower sludge collecting chamber, said lower sludge collecting chamber being located in a pit below the surface of the sewage and containing a plurality of forced air passages, said condensing chamber containing a series of baffle screens, means for creating a sludge laden air current and means for condensing such sludge laden air current on said baffle screens.

1,415,008. TRAILER LEG SUPPORT. WILLIAM BARBER, Brooklyn, N. Y. Filed May 8, 1919. Serial No. 295,727. 6 Claims. (Cl. 280—33.1.)



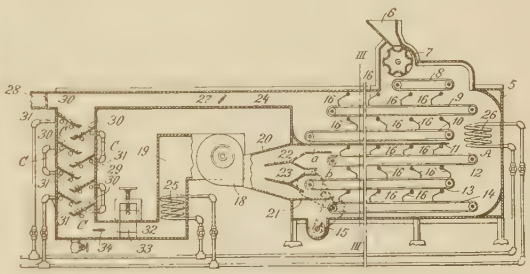
1. A combined wheel and shoe attachment for trailer leg supports, comprising a leg pivoted to the trailer body, a supporting wheel attached at the end of the leg, and a shoe pivotally mounted on the leg at a point above the wheel for movement into and out of working position.

1,415,009. BRAKE-BEAM FULCRUM AND METHOD OF MAKING THE SAME. CARL E. BAUER, Hammond, Ind. Filed Oct. 18, 1920. Serial No. 417,640. 5 Claims. (Cl. 29—164.)



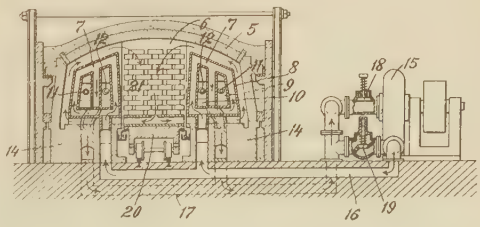
1. The method of forging fulcrums which consists in bending a flat bar into substantially U-shape and simultaneously forming a saddle in the doubled-up end thereof, then pressing the portions of metal contiguous to the saddle into engagement with the sides of the saddle.

1,415,010. APPARATUS FOR DRYING FRUITS, VEGETABLES, AND OTHER SUBSTANCES. GEORGE HILLARD BENJAMIN, New York, N. Y. Filed Feb. 10, 1917. Serial No. 147,778. 6 Claims. (Cl. 34—12.)



2. In an apparatus of the class described, the combination of an enclosing casing, a horizontal partition for dividing the apparatus into two sections, two series of belts longitudinally offset, one series in each section, means for driving said belts at progressively lower speeds the speeds decreasing approximately in proportion to the decrease of water in the material under treatment as the material passes from one belt to the next, together with means for driving heated air over said belts.

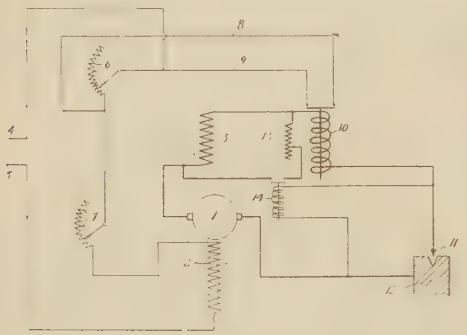
1,415,011. TUNNEL KILN. GEORGE HILLARD BENJAMIN, New York, N. Y. Filed May 17, 1921. Serial No. 470,233. 4 Claims. (Cl. 25—142.)



1. A tunnel oven comprising a main chamber through which goods to be heated can be caused to travel; a

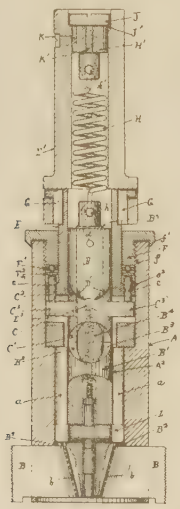
heating chamber on each side of the main chamber, but structurally independent of the walls thereof; each heating chamber consisting of an enclosing structure and two structurally independent combustion chambers located therein.

1,415,012. ARC-WELDING SYSTEM. ALAN M. BENNETT, WILLIAM B. ELLIOTT, and WILLIAM O'BLENIS, Westfield, N. J., assignors, by mesne assignments, to Burke Electric Company. Filed Mar. 14, 1918. Serial No. 222,295. 11 Claims. (Cl. 171—223.)



1. The combination of a variable resistance circuit, a generator supplying said circuit, said generator comprising a field winding and a series field winding opposed to the aforesaid field winding, and means responsive to increasing in working voltage for reducing the effect of the series field winding on the generator voltage.

1,415,013. COLLAPSIBLE TAP. RUDOLPH A. BOEHM, Erie, Pa., assignor to Rickert-Shafer Company, Erie, Pa., a Corporation of Pennsylvania. Filed Nov. 12, 1920. Serial No. 423,671. 7 Claims. (Cl. 10—145.)

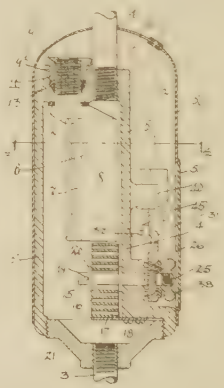


7. In a collapsible tap, a hollow body member, chasers radially slidable in one end thereof, an annular shoulder within said member, one or more driving studs secured in said shoulder, a spring pressed ratchet post mounted in said shoulder, a hollow shank rotatably and slidably mounted within the opposite end of said body member and having a transverse slot in the inner end thereof, a collar screwed into said body member around said shank adapted to be adjusted longitudinally therein, a ring secured on the lower end of said shank having radial notches in the lower annular surface thereof adapted to receive said driving studs, a central longitudinally movable member within said body member and said hollow shank, a block secured within said hollow shank adjacent to its upper end, a spring secured to said block and to said central member and adapted to move said central member in one direction therein, a sleeve rotatably mounted in said central member, co-acting cams on said central member and said sleeve adapted to move said central member against the action of said spring, arms on said sleeve extending into the transverse slot in said shank, and means on said arms to engage said screw collar whereby the longitudinal position of said sleeve and the central member with relation to said body and shank members may be adjusted by said screw collar.

1,415,014. SHOWER OR SPRAYING ATTACHMENT FOR BATHTUBS. WILLIAM C. BOOTH, Evanston, Ill. Filed Nov. 8, 1920. Serial No. 422,508. 2 Claims. (Cl. 4—26.)

1. The combination with a bath tub, of a spraying device therefor comprising a system of adjustable pipes fitting the inner upper edge of the tub, a plurality of spraying nozzles extending from said system of pipes and adapted for spraying water from the sides and ends of the tub in downwardly divergent sprays, the spraying device at the foot of the tub comprising a downwardly extending reservoir.

1,415,015. ELECTRIC WATER HEATER. CYRUS M. BOSWORTH, Cleveland, and ALOYSIUS G. BOESEL, Cleveland Heights, Ohio. Filed Aug. 6, 1919. Serial No. 315,586. 5 Claims. (Cl. 219—38.)

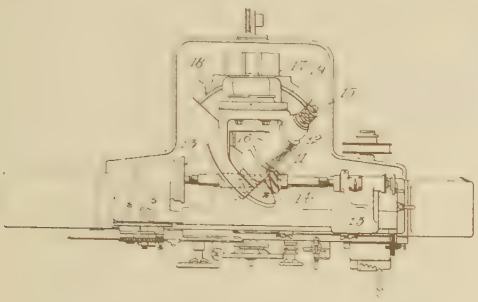


1. In an electrical heating device for water systems of the character described, the combination of a thermostat disposed within said device, and a regulator operatively connected to said thermostat, said regulator comprising a frusto-conical shaped portion, and a switch operating lever adjustably mounted on said frusto-conical shaped portion.

1,415,016. PROCESS OF FORMING GEARS BY GRINDING. PERCY BROWN and FRANCIS JOHN BOSTOCK, Huddersfield, England, assignors to Timken-Detroit Axle Company, a Corporation of Ohio. Filed Nov. 20, 1920. Serial No. 425,361. 8 Claims. (Cl. 51—278.)

1. The process of generating gears having helical teeth which comprises mounting a suitably formed gear blank for synchronous rotation and movement lengthwise of its

axis with reference to a rotating forming wheel having a straight side working face, and maintaining the wheel

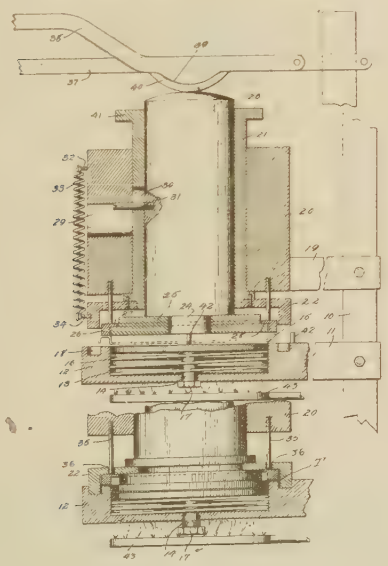


with said working face in contact with the face of a tooth along a non-radial line extending substantially from root to crown.

1,415,017. BUCKLE. JOHN F. CARPMILL and GEORGE W. TROOP, New Britain, Conn., assignors to The North & Judd Manufacturing Company, New Britain, Conn., a Corporation of Connecticut. Filed Dec. 6, 1921. Serial No. 520,300. 3 Claims. (Cl. 24—191.)

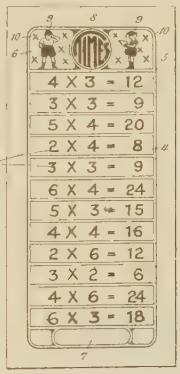
1. A buckle of the class described comprising a body member having parallel flanges along its opposite sides, a locker pivotally mounted between the side flanges and comprising a flat body portion having a depending flange at its forward end terminating in its lower end in a rearwardly extending lip, said body portion also having downwardly and rearwardly extending portions at angles to each other, said locker having a slot extending through its body portion and also through said downwardly and rearwardly extending portions, and a terminal member, for connection with a web, pivotally mounted in said slot.

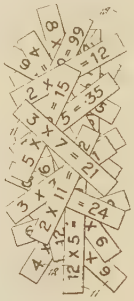
1,415,018. DIE PRESS. FREDERICK COATES, Cincinnati, Ohio, assignor to Federal Products Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Apr. 27, 1921. Serial No. 464,836. 3 Claims. (Cl. 18—19.)



1. In a device of the kind described, a hollow die support having longitudinal slot in one side, a die carrying plunger slidable in said support and having a pin projecting into said slot, dies on the support and plunger, yieldable means normally holding the support and plunger out of operation with the pin in the lower end of the slot, means to engage the plunger and move the same against the action of the yieldable means whereby said pin will cause similar movement of the hollow die support, and means to engage said support to continue movement thereof after the plunger ceases to move.

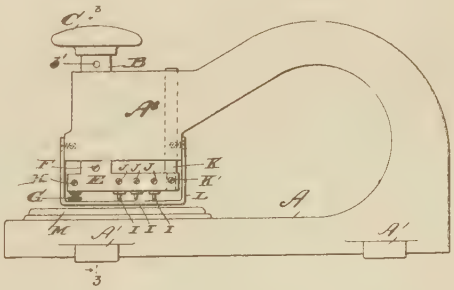
1,415,019. CARD GAME. LORENA CROSSLAND, Philadelphia, Pa. Filed Sept. 18, 1920. Serial No. 411,036. 4 Claims. (Cl. 35—2.)





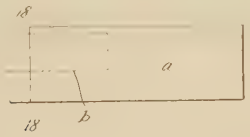
1. A card game for educational purposes comprising cards having an orderly arrangement of problems, each occupying a line on the card, and a number of mating slips or tags each corresponding in size to the space occupied by a problem on the card and having one of the problems thereon, with the slips separate from the cards and from each other, whereby each player may be provided with a card and the slips may be separately drawn to be placed upon and cover the corresponding problems on the card.

1,415,020. BALLOT PROTECTOR. LORENZO A. CROWLEY, Detroit, Mich. Filed Oct. 7, 1920. Serial No. 415,442. 3 Claims. (Cl. 164—93.)



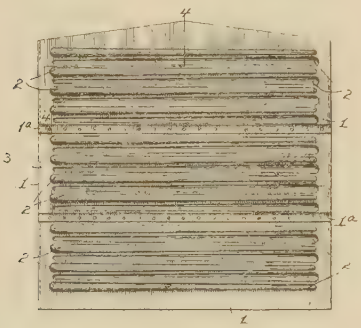
1. In a device of the character described, a frame having a portion overhanging its base, a vertical manually operated plunger sleeved in the overhanging portion, a removable die block secured to one end of the plunger having a plurality of dies thereon and means for removing each of said dies from the said block.

1,415,021. METHOD OF MAKING HIGH-SPEED CUTTING TOOLS. JEAN H. L. DE BATS, Whitman, Mass., assignor, by mesne assignments, to Anatmos Metals and Furnace Corporation, New York, N. Y., a Corporation of Delaware. Filed Jan. 30, 1920. Serial No. 355,111. 2 Claims. (Cl. 76—101.)



2. The method of making high speed cutting tools, which consists in subjecting an iron or steel bar low in carbon and containing an alloy of metals which is relatively harder but of a lower melting point than said iron or steel bar, to a heat lower than the melting point of said iron or steel bar but sufficiently high to melt the said alloy and cause it to unite with the iron or steel, cooling the united metals and removing a portion of the iron or steel to expose the alloy.

1,415,022. SHEET-METAL CAR MEMBER. ETHAN I. DODDS, Pittsburgh, Pa. Filed Nov. 1, 1920. Serial No. 421,044. 2 Claims. (Cl. 105—410.)



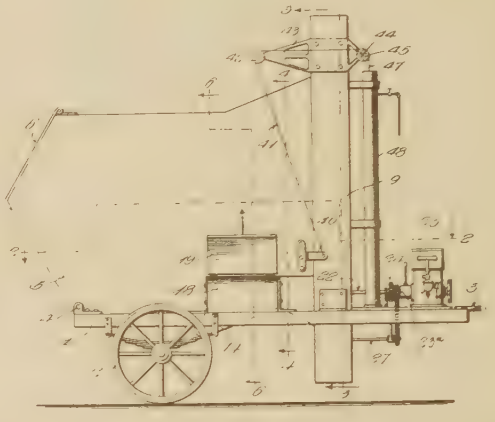
1. A sheet metal car member having corrugations all of which extend approximately from edge to edge of said member, each of said corrugations tapering gradually in width and depth from one end to the other, the large ends of alternate corrugations being located near one edge of the sheet and the smaller ends of the other corrugations alternating with said large ends near the same edge of the sheet.

1,415,023. PROCESS OF MAKING CELLULOSE ETHERS. JOHN M. DONOHUE, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed June 9, 1921. Serial No. 476,317. 8 Claims. (Cl. 260—10.)

7. In the process of making cellulose ethers, the steps of soaking cellulose in a caustic soda solution until mercerized, then mixing powdered caustic soda therewith, pressing out the excess of said caustic soda solution, and etherifying the cellulose in the resulting mixture.

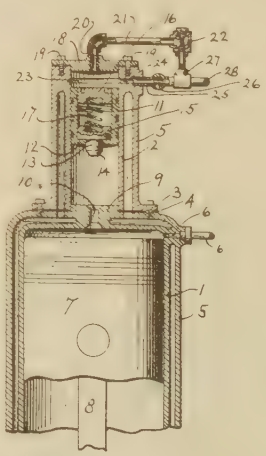
1,415,024. ASH COLLECTING AND DUMPING MACHINE. WILLIAM EIERMANN, Brooklyn, N. Y. Filed Nov. 1, 1920. Serial No. 421,077. 2 Claims. (Cl. 214—69.)

1. In a machine for collecting and dumping material, a truck including ground-wheels and a frame carried by the ground wheels and extending forward and rearward of the axis of the ground wheels, a conveyor mounted in the central portion of said frame forwardly of said axis and being operable to convey material forward, two chutes supported by said frame forwardly of said wheels and extending inwardly to a position for delivering material to said conveyor, an elevator casing mounted on and extending up from said truck forwardly of said conveyor and provided with an inlet and an outlet, an endless bucket-elevator including a supporting axle which extends forward and rearward or in the direction of travel of the truck, a chute between said conveyor and



elevator in position to receive material from the conveyor and having a laterally directed discharging end in position to deliver material to the ascending side of said bucket-elevator, a dumping receptacle hinged to said frame rearwardly of the axis of said ground-wheels and being normally in a position over said conveyor and in position to receive material from said elevator, a transmission member on said frame, and means driven by said transmission member for operating said conveyor and elevator.

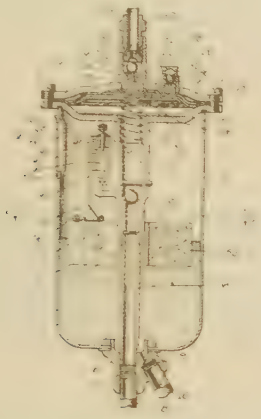
1,415,025. INTERNAL-COMBUSTION ENGINE AND METHOD FOR CONTROLLING COMBUSTION THEREIN. ROBERT H. FOLSOM, Buffalo, N. Y., assignor to Worthington Pump and Machinery Corporation, New York, N. Y., a Corporation of Virginia. Filed Aug. 23, 1919. Serial No. 319,457. 14 Claims. (Cl. 123—78.)



1. In an internal combustion engine having a combustion chamber, and a reciprocating piston, an auxiliary cylinder, a wall between said cylinder and said chamber, a port in said wall through which the auxiliary cylinder is in communication with said combustion chamber said cylinder having a capacity sufficient to temporarily reserve only a part of the charge of air compressed by one stroke of the piston to be redelivered

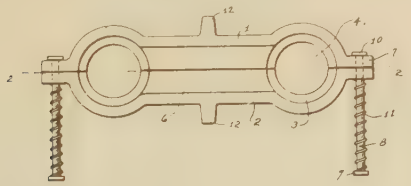
to said combustion chamber, through said port, during the next proceeding stroke of the piston, and means for introducing fuel into said combustion chamber prior to and independently of the redelivery of the reserve air.

1,415,026. FUEL-FEED APPARATUS. WILLIAM J. FRISBIE, Chicago, Ill., assignor to Justrite Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 13, 1920. Serial No. 410,056. 5 Claims. (Cl. 158—36.)



1. In a fuel feed mechanism of the class described, the combination of a reservoir, a fitting within said reservoir providing a fuel chamber, a conduit for leading fuel to said chamber from the exterior of the reservoir, an inlet check valve at the entrance to said chamber, said chamber having an outlet to the reservoir, a check valve controlling said outlet, means for alternately raising and lowering the pressure in said chamber, decreased pressure causing fuel to be drawn into said chamber past said inlet check valve and increasing pressure causing expulsion of fluid from said chamber past the outlet check valve into said reservoir, a float member surrounding said, fitting and hinged thereto to swing vertically, and a link connecting between said float member and said outlet check valve for holding said check valve off its seat when the float member is raised by the fuel in said reservoir.

1,415,027. MOLD FOR BATTERY CONNECTERS. ALFRED H. GEBHARDT, Milwaukee, Wis. Filed July 18, 1921. Serial No. 485,712. 2 Claims. (Cl. 22—116.)

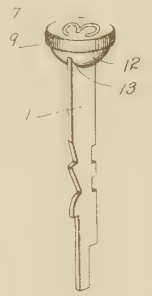


1. A mold for casting battery terminal connecters, comprising a pair of sections adapted to be positioned about said battery terminals and having pockets formed in the ends thereof about said battery terminals and spaced therefrom throughout their major portion and having a channel section connecting said pockets, and means for temporarily holding said sections together.

1,415,028. PROCESS FOR THE TREATMENT OF ORES OF VANADIUM. ALPHONSE GILDEMEISTER, Paris, France. Filed Dec. 22, 1921. Serial No. 524,286. 2 Claims. (Cl. 23—13.)

1. A process of producing vanadium compounds from ores, which comprises exposing such ores while containing V_2O_5 to the action of dry chlorine, in the continued presence of a reducing agent, while at substantially above the boiling point of vanadyl trichlorid, but not substantially above 400° C. whereby the vanadyl trichlorid distills alone, and subsequently collecting the latter.

1,415,029. KEY. BENJAMIN P. HAYES, Kansas City, Mo. Filed Apr. 13, 1921. Serial No. 461,132. 7 Claims. (Cl. 197—102.)



1. A key comprising a post, a pad fastened to the post and having a depending peripheral flange, a ferrule seated on the pad and having a flange of greater width than that of the pad flange and crimped under the pad flange.

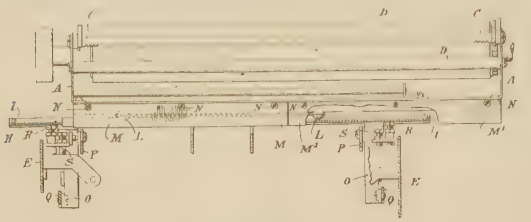
1,415,030. GARTER. ELIZABETH S. HERSPERGER, Washington, D. C. Filed Dec. 14, 1920. Serial No. 430,686. 2 Claims. (Cl. 241—1.)

1. A garter including major and secondary bands, the major band at least partly elastic, with its ends crossing and having free sliding connection with each other, its ends free and provided with means for attachment to some garment above for supporting the garter, the ends of the minor band secured to the ends of the major band, and a loop loosely connecting the major and minor bands together, said major band adapted to embrace the leg below, and the minor band above, the wearer's knee.

1,415,031. CARRIAGE FOR TYPEWRITING MACHINES. EDWARD BERNARD HESS and LEWIS CARY MYERS, Brooklyn, N. Y., assignors to Royal Typewriter Company, Inc., New York, N. Y. Original application filed Jan. 13, 1921, Serial No. 436,924. Divided and this application filed May 27, 1921. Serial No. 473,163. 5 Claims. (Cl. 197—69.)

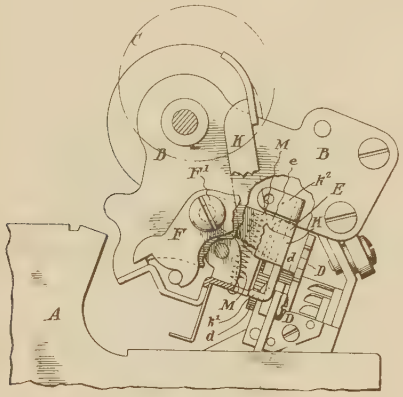
1. In a typewriting machine the combination with a carriage having upper and lower ball-race members, of

clamping plates continuous from one side of the carriage to the other for connecting the ball-race members and



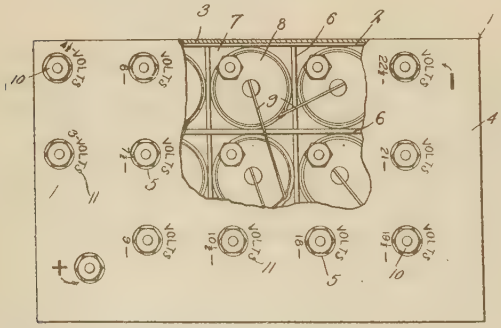
which have means for adjusting them relatively to each other and to the ball-race members.

1,415,032. CARRIAGE-RELEASE MECHANISM FOR TYPEWRITING MACHINES. EDWARD BERNARD HESS and LEWIS CARY MYERS, Brooklyn, N. Y., assignors to Royal Typewriter Company, Inc., New York, N. Y. Original application filed Jan. 13, 1921, Serial No. 436,924. Divided and this application filed May 27, 1921. Serial No. 473,166. 4 Claims. (Cl. 197—96.)



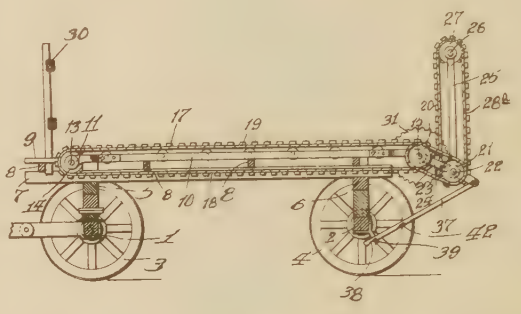
1. A rack bail for typewriting machines, comprising pivotally mounted side arms extending from the rack bar and a lever at each end of the bar formed integrally with a stop for limiting the movement of the bar and which is secured to the end thereof.

1,415,033. BATTERY. HARRY T. HIPWELL, Pittsburgh, Pa. Filed Sept. 29, 1921. Serial No. 504,033. 1 Claim. (Cl. 204—38.)



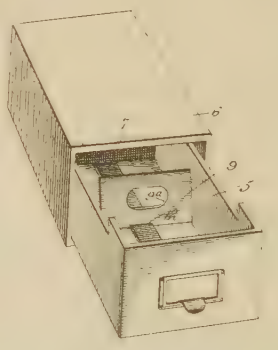
As an article of manufacture, a battery-package including a box-like receptacle comprising a body; battery cells in the body and provided with terminals; and a cover whereinto the body is telescoped, the side walls of the cover overlapping the side walls of the body to reinforce the receptacle in the retention of the cells, the cover comprising a top disposed above the upper edge of the body and provided with openings through which the terminals extend, the top having markings located closely adjacent to the openings and indicating the voltage available at each opening, the terminals projecting above all portions of the receptacle, to render them accessible, the body acting as a guide for the cover, whereby the terminals of the cells will be directed into the openings, when relative telescopic movement between the body and the cover takes place.

1,415,034. UNLOADING DEVICE RELATIVE TO UNLOADING FODDER. LOUIS E. HOELSCHER, St. Louis, Mo. Filed Jan. 20, 1919. Serial No. 272,083. 5 Claims. (Cl. 214—83.)



1. An unloading device comprised of a wogan bed, a conveyor arranged longitudinally thereof, the uppermost lap of which provides the central load sustaining portion of said wagon bed, and there being a horizontally extending member arranged on each side of said conveyor on a plane beneath the uppermost lap thereof.

1,415,035. FOLLOWER BLOCK FOR CARD-INDEX CASES. LOUIS HOFFMAN, New York, N. Y. Filed Oct. 16, 1920. Serial No. 417,406. 3 Claims. (Cl. 129—31.)



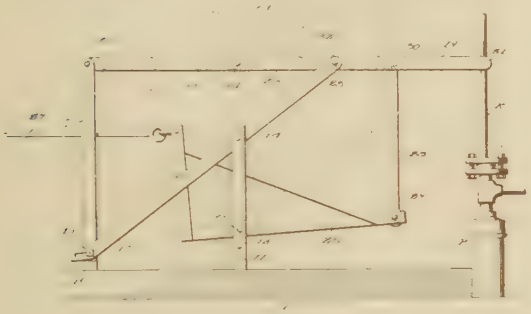
1. A device of the character described, comprising a channel bar of flattened shape with the flanges thereof facing downwardly so as to present a smooth flat face for the lower edges of the cards, and downturned end portions for securing the bar in place and serving to elevate the bar and its flanges above the surface to which it is applied, and a follower plate slotted to receive said bar and movable along the same.

1,415,036. CHARGE OR BLOCK FOR USE IN PRACTICING PROCESSES INVOLVING CHEMICAL REACTIONS, MORE PARTICULARLY REACTIONS BETWEEN SOLID AND GASEOUS BODIES, AND PROCESS OF MAKING THE SAME. WILLIAM HOOPES, Pittsburgh, Pa., assignor to Aluminum Company of America, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Sept. 19, 1919. Serial No. 324,767. 30 Claims. (Cl. 204—64.)

1. A charge or block of the class described consisting of a self-sustaining body formed of intercoherent but sub-

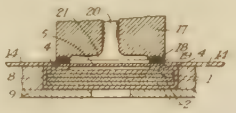
stantially uncompacted mixture of materials and characterized by its capability of retaining its self-sustaining qualities at relatively high temperatures and by a porosity which renders it readily permeable to gases.

1,415,037. PUMP JACK. WILLIAM G. JENSEN, Bartlesville, Okla. Filed Aug. 17, 1920. Serial No. 404,230. 1 Claim. (Cl. 74—5.)



A pump jack comprising a base, a stationary frame arranged upon said base and having an extension, a standard pivoted at its lower end to said base, an arm pivotally secured at one end to the upper end of said standard and adapted to be connected at its other end with the polish rod of the pump, a link having one end pivotally secured to the frame extension and the other end pivotally secured to the arm whereby the arm at its connection to the polish rod is constrained to rectilinear motion, and means for actuating said arm including a rocking frame carried by the stationary frame and a connecting rod transmitting motion from the rocking frame directly and immediately to the arm.

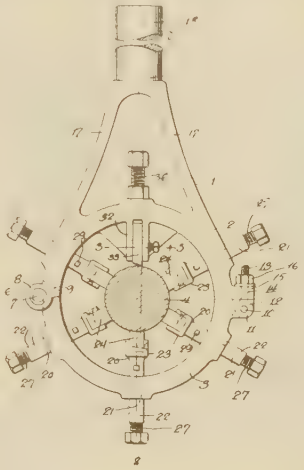
1,415,038. METHOD OF MAKING AND SEALING PACKAGES. JOHN G. JONES, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Mar. 22, 1921. Serial No. 454,522. 5 Claims. (Cl. 93—2.)



1. The method of wrapping an article comprising the following steps: placing the article in a flanged wrapper in a snugly fitting recess in a die member, bending the flanges over the article by means of cheeking dies, positioning said cheeking dies to leave a space of predetermined size, positioning in such space a sheet of material of corresponding size and coated with an adhesive material and submitting it to pressure.

1,415,039. HAND-SHAFT-TURNING DEVICE. JOSEPH KINDL, St. Louis, Mo. Filed July 26, 1920. Serial No. 399,021. 1 Claim. (Cl. 82—4.)

A hand operated turning tool for turning shafts, comprising a substantially circular frame having radial slots formed therein, the said slots being arranged in pairs, the frame also having a series of screw threaded openings one being arranged between the slots in each pair, a series of guide members each including a head having parallel guide arms extended through a pair of the said slots, a shaft engaging member carried by each head, and an

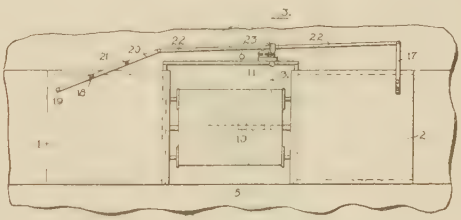


adjustable screw mounted in each of the said screw threaded openings and engaged with the said head whereby the said head may be adjusted radially.

1,415,040. PROCESS FOR THE PREPARATION AND PRESERVATION OF VISCOSE SOLUTIONS OF CELLULOSE FOR THE PRODUCTION OF FILMS, THREADS, AND FILAMENTS. WALDEMAR OSCAR MITSCHERLING, Wilmington, Del., assignor to Atlas Powder Company, Wilmington, Del., a Corporation of Delaware. Filed Feb. 9, 1922. Serial No. 535,370. 2 Claims. (Cl. 134—79.)

2. The herein described process of preserving viscose cellulose solutions from decomposition which consists of adding sodium-thiosulphate to such solutions in the proportion of one percent of sodium-thiosulphate to the amount of cellulose used in such solution.

1,415,041. LIGHTING DEVICE FOR PLAYER PIANOS. RICHARD C. MORENUS, Laporte, Ind. Filed Jan. 29, 1921. Serial No. 440,871. 5 Claims. (Cl. 240—4.)

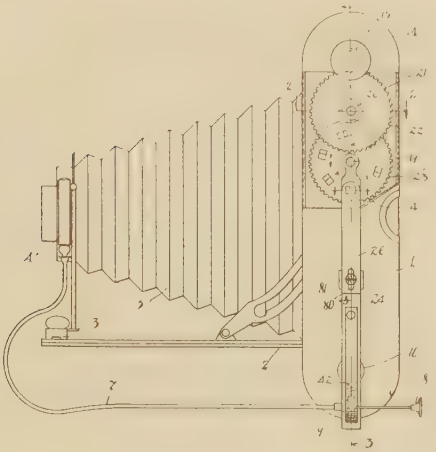


1. In a device of the class described, a music well, a lamp for lighting said well, a door for closing said well, a bar pivotally connected at one end with means on said door and pivotally connected at the other end with a rocking support, and means operated by said bar for controlling said lamp.

1,415,042. PHOTOGRAPHIC APPARATUS. ROBERT A. MOORE, Cleveland, Ohio. Filed July 5, 1919. Serial No. 308,799. 6 Claims. (Cl. 242—71.)

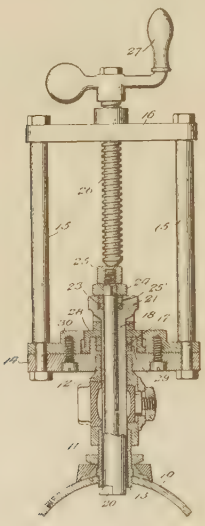
1. In a magazine photographic apparatus, the combination with a casing for receiving the photographic mechanism including two spaced film mandrels, of means for operating one of said mandrels including a support mov-

ably mounted on said casing, a train of reducing gears mounted on said support and adapted to be operatively engaged with one of said mandrels to rotate the same upon a predetermined movement of said support, one of said



gears being provided with a series of spaced engaging faces, and a handle adapted to be successively engaged with said faces to intermittently rotate said gear upon movement of said handle.

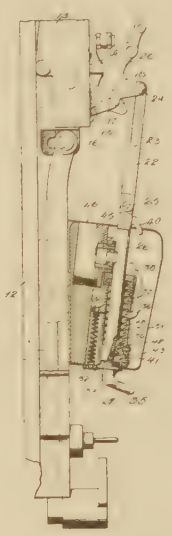
1,415,043. NIPPLE-EXPANDING MACHINE. PHILIP MUELLER and ANTON C. SCHUERMANN, Decatur, Ill., assignors to Adolph Mueller, trustee, Decatur, Ill. Filed Nov. 12, 1919. Serial No. 337,491. 18 Claims. (Cl. 153—81.)



1. In a device of the class described, the combination of a supporting frame, an expanding tool mounted in said frame, means for rotating said tool, and independent, positively actuated rotatable means to effect automatically longitudinal movement of said tool when said tool is rotated.

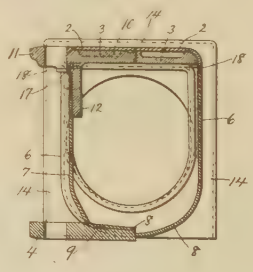
1,415,044. PERCUSSION FIRING MECHANISM. GEORGE W. NUSBAUM, Takoma Park, Md. Filed Mar. 18, 1920. Serial No. 367,004. 10 Claims. (Cl. 89—28.)

7. In a percussion firing lock including a cocking lever, a plunger connected with said cocking lever, a sleeve surrounding said plunger, a spring interposed between the plunger head and the sleeve wall adapted to be compressed on the manual cocking of the gun by relative movement of



the sleeve, a latch adapted to hold said sleeve in cocked position, a sear for retaining and releasing said plunger, means for releasing said sear and means actuated by the plunger for releasing said sleeve.

1,415,045. JOURNAL BOX. ALLEN E. OSTRANDER, Ridgewood, N. J., and HERBERT H. WILLIAMS, Brooklyn, N. Y., assignors of one-half to American Car and Foundry Company, New York, N. Y., a Corporation of New Jersey, and one-half to Metropolitan Engineering Company, Brooklyn, N. Y., a Corporation of New York. Filed Mar. 23, 1921. Serial No. 454,764. 12 Claims. (Cl. 64—10.)

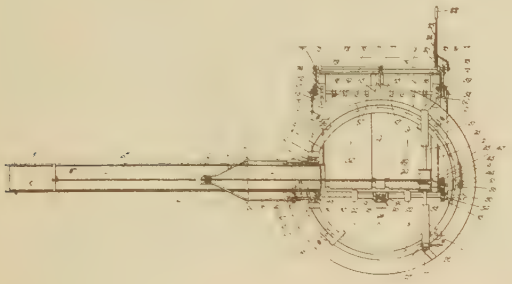


1. In a journal box, a pressed metal cellar, a pressed metal top and an inner reenforcing member for said top secured between said cellar and top and adapted to serve as a stop for the journal brass.

1,415,046. FEEDING APPARATUS FOR THRASHING MACHINES. THOMAS MCNICKLE PARK, Lake Bolac, Victoria, Australia. Filed Mar. 12, 1920. Serial No. 365,303. 11 Claims. (Cl. 198—75.)

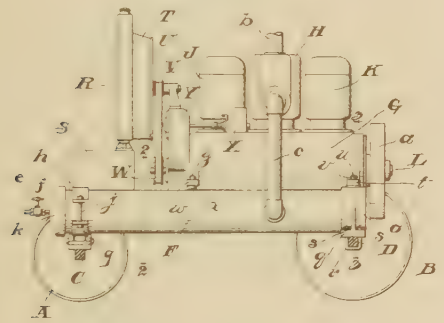
1. Feeding apparatus for thrashing machines, comprising a turntable; a conveyor carried by the turntable to move bodily therewith; a plurality of delivery belts ar-

ranged side by side beneath the turntable and movable in the same direction to receive the material from the



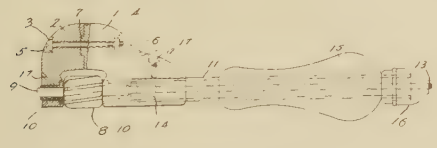
conveyor and discharge it at substantially the same point; and means for individually varying the speed of each belt.

1,415,047. PORTABLE COMPRESSOR UNIT. FREDERICK W. PARSONS, Elmira, N. Y., assignor to Ingersoll-Rand Company, Jersey City, N. J., a Corporation of New Jersey. Filed Mar. 31, 1921. Serial No. 457,383. 4 Claims. (Cl. 230—32.)



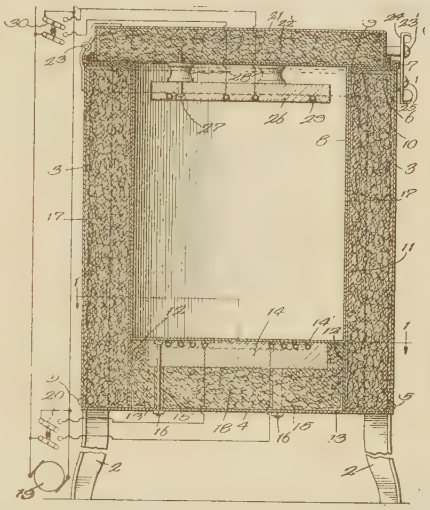
1. A portable compressor unit, comprising a main supporting frame in the form of a duplex receiver extending longitudinally of the unit, an engine frame forming a crank case adjustably supported upon said duplex receiver, and lying partially between and below the level of the tops of the receiver tanks and a vertical engine driven compressor mounted on said crank case.

1,415,048. BEARING SCRAPER. ARTHUR PATIGIAN, Modesto, Calif. Filed June 15, 1920, Serial No. 389,105. Renewed Mar. 16, 1922. Serial No. 544,368. 1 Claim. (Cl. 90—12.)



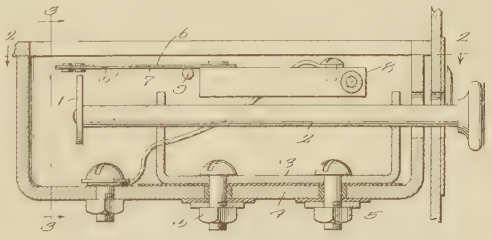
A device of the character specified, comprising a supporting frame having alined bearings, and a laterally opening recess between the bearings, a shaft journaled in the bearings and carrying a cutter, a driving shaft connected with the shaft, a tubular member connected with the supporting frame and enclosing said driving shaft and carrying a grip, said supporting frame being sectional between the bearings, and a bearing being provided in each section, and means for detachably holding the sections together.

1,415,049. FIRELESS COOKER. JAMES H. REICHART, Muncie, Ind., assignor to The Sterolectric Company, Muncie, Ind., a Corporation of Indiana. Filed Oct. 7, 1920. Serial No. 415,378. 9 Claims. (Cl. 126—39.)



1. A fireless cooker having an element shaped to form a well and located within the body portion of the cooker; a positioner for the well element assembled with the side portions of the cooker body; and a positioner for the aforesaid positioner assembled with the bottom of the cooker body which, together with the positioner assembled therewith, is separable from the balance of the structure.

1,415,050. THERMOSTATIC ELECTRIC SWITCH. JAMES H. REICHART, Muncie, Ind., assignor to The Sterolectric Company, Muncie, Ind., a Corporation of Indiana. Filed Oct. 7, 1920. Serial No. 415,379. 3 Claims. (Cl. 200—138.)

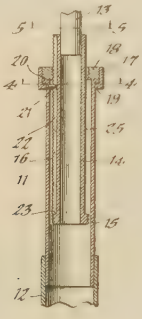


3. A thermostatic switch having two engageable contacts one of which is a thermostatic contact to make it movable toward and from the other; a movable weighted arm carrying the thermostatic contact; and a stop for supporting the arm and serving to hold the thermostatic contact out of engagement with the other contact when the temperature is below a predetermined point and permitting the thermostatic contact to engage the other upon sufficient increase in temperature while the stop is functioning and to move the arm from the supporting influence of said stop upon further increase in temperature and while said contacts are still engaged.

1,415,051. ATTACHMENT FOR ADJUSTING THE PITCH OF WIND MUSICAL INSTRUMENTS. RAFFAELE PINNAVAJA, Buffalo, N. Y. Filed Feb. 28, 1921. Serial No. 448,332. 2 Claims. (Cl. 84—386.)

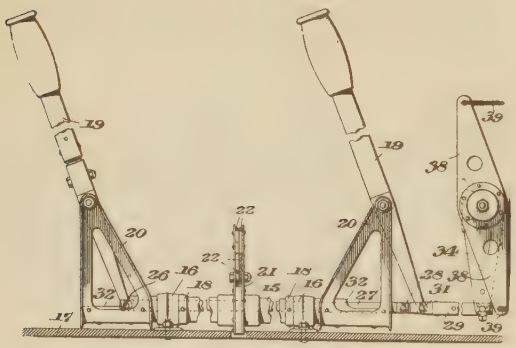
1. An attachment for adjusting the pitch of wind musical instruments comprising inner and outer tubular

telescopic members, the outer member being adapted for engagement with the stem of the instrument and provided at its front end with an external annular flange and the inner members being movable relatively to said outer member and having an external screw thread, a nut engaging with the front side of said flange and



having its thread engaging with the thread of said inner member, a tubular head engaging with the periphery of said nut and extending along the periphery of said external flange and provided with an internal flange at its rear end which engages with the rear side of said external flange.

1,415,052. AIRPLANE. WILLIAM KEITH RIDER, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed July 26, 1920. Serial No. 399,074. 5 Claims. (Cl. 244—29.)



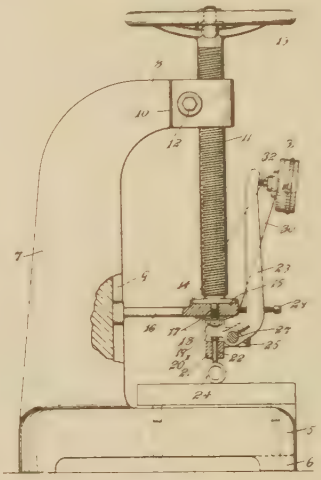
1. Control mechanism for airplanes comprising a rock shaft, a rod extending substantially coaxial with said rock shaft, connections from said shaft and rod to the ailerons and elevators of the airplane, a control stick pivoted to said shaft so that the stick may rock on its pivot longitudinally of the shaft and will rock the shaft when moved laterally, and a direct connection between said control stick and said rod so that the latter is moved endwise as the stick is rocked on its pivot.

1,415,053. SUCTION CLEANING APPARATUS. FRANK E. ROBERTSON, Cleveland, Ohio, assignor to The P. A. Geier Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 7, 1915. Serial No. 44,283. 10 Claims. (Cl. 15—15.)

1. A suction cleaning appliance of the class described, having a substantially flat front face centrally open to the fan and a removable suction nozzle, of a flush connecting mechanism provided upon the front face ad-

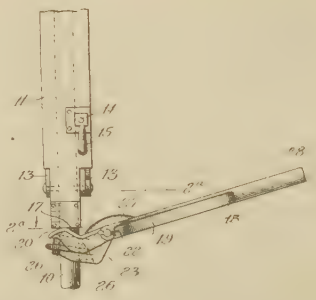
jacent to the opening and adapted separably to secure the nozzle in position, substantially as set forth.

1,415,054. GAUGE. HUGH M. ROCKWELL, Bristol, Conn., assignor, by mesne assignments, to Standard Steel and Bearings Incorporated, Wilmington, Del., a Corporation of Delaware. Filed Mar. 16, 1918. Serial No. 222,937. 5 Claims. (Cl. 33—147.)



1. In a measuring instrument, a member having a surface against which an object to be measured may be placed, an indicator supporting member mounted for adjustment toward or from said surface, a screw for adjustably moving said member, an indicator carried by said supporting member, an indicator actuating means carried by said supporting member and arranged to engage an object interposed between said actuating means and said surface to thereby cause the indicator to show a measurement of said object.

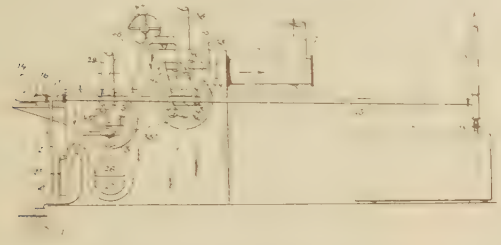
1,415,055. LIFTING IMPLEMENT. HENRY W. ROOS, Cincinnati, Ohio. Original application filed Mar. 14, 1919, Serial No. 282,602. Divided and this application filed Dec. 14, 1920. Serial No. 430,682. 8 Claims. (Cl. 254—131.)



1. A jacking instrument for the relatively movable parts of an extensible shore comprising a pair of mem-

bers pivotally connected with each other and each formed for detachable engagement with one of said shore parts to effect relative movement thereof, and a handle portion on one of said members.

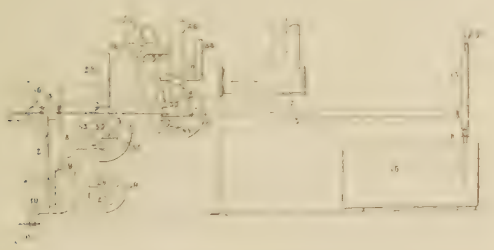
1,415,056. PLANT AND PROCESS FOR DISTILLING TAR. CHARLES SCHAER, Langenthal, Switzerland. Filed Apr. 23, 1917. Serial No. 163,985. 6 Claims. (Cl. 196—4.)



1. In a tar distillation plant, a heating compartment, a cylindrical still mounted therein, means for conveying tar to and from the still, and means for spreading the tar in a layer over the interior surface of the still, said means comprising a plurality of ladles, a rotary support within the still on which said ladles are mounted with their discharge ends in close proximity to the walls of the still, and means for rotating said support.

2. In a tar distillation plant, a heating compartment, a cylindrical still in said compartment, means for conveying tor to and from the still, means for successively spreading and removing a layer of tar over the interior surface of the still, said spreading and removing means consisting of a plurality of ladles, a rotary support on which said ladles are mounted and means for pressing the advancing edges of the ladles against the wall of the still to remove the layer deposited by the preceding ladle.

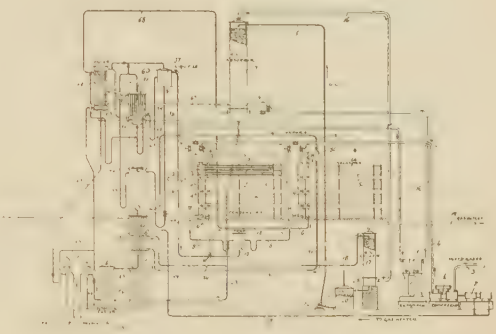
1,415,057. APPARATUS FOR DISTILLING TAR. CHARLES SCHAER, Langenthal, Switzerland. Filed May 27, 1920. Serial No. 384,701. 8 Claims. (Cl. 196—13.)



1. Apparatus for the distillation of tar comprising the combination of two stills, a single source of heat for said stills, means for controlling the heat to liberate medium and heavy oils in one of said stills and to liberate the lighter oils and ammonia in the other of said stills, a tar discharge conduit connecting the lighter oil still to the heavier oil still, a pitch discharge conduit from the heavier oil still, a condenser for the lighter oils and ammonia connected to the lighter oil still, a condenser for the medium and heavy oils connected to the heavier oil still, a vapor conduit from the pitch discharge, a condenser connected thereto, and means for continuously delivering tar to and through the system.

6. Apparatus for the distillation of tar comprising in combination a still for the liberation of the lighter oils and ammonia, a still for the liberation of the medium and heavier oils, a connection between said stills through which the tar flows from the first to the second still, a pitch discharge conduit from the second still, a pipe connected to said pitch conduit for leading vapors therefrom, a suction or exhaust means connected to said pipe, and means for colling said vapors.

1,415,058. PROCESS OF AND APPARATUS FOR EXTRACTING, LIQUEFYING, AND SEPARATING LIQUEFIABLE CONSTITUENTS OF GASES. EMIL SCHILL and FRANZ WOIDICH, New York, N. Y., assignors to Continental Gas Compressing Corporation, New York, N. Y., a Corporation of New York. Filed Apr. 9, 1917. Serial No. 160,642. 11 Claims. (Cl. 196—25.)

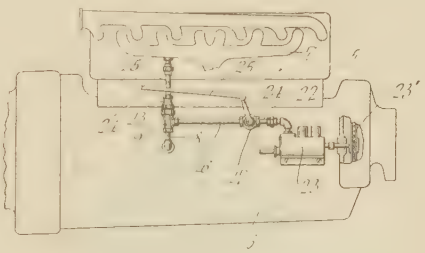


1. The process which consists in compressing a gas containing various liquefiable vapors and extracting liquefiable products therefrom by reducing the temperature of said compressed gas, expanding the devaporized gas in a cylinder, imparting the resulting reduced temperature to a circuating liquid and using the thus cooled liquid as the means for reducing the temperature of the compressed gas.

1,415,059. BASE FOR ANTISTATIC FILM AND COMPOSITION FOR MAKING THE SAME. PAUL C. SEEL, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Original application filed Dec. 31, 1920, Serial No. 434,354. Divided and this application filed Apr. 16, 1921. Serial No. 461,916. 14 Claims. (Cl. 106—37.)

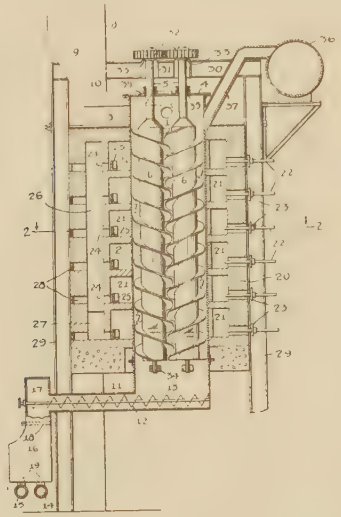
1. A flexible transparent nitrocellulose base or support adapted to receive sensitive photographic coatings which contains a sugar, an inert hygroscopic organic compound of low volatility and water.

1,415,060. INTERNAL-COMBUSTION-ENGINE ATTACHMENT. RALPH L. SKINNER, Sacramento, Calif. Filed Dec. 8, 1919. Serial No. 343,276. 4 Claims. (Cl. 123—119.)



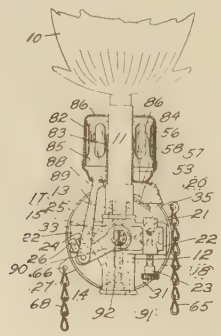
1. The combination with an internal combustion engine having an intake manifold and an air-tight crank-case, of a pipe connecting the intake manifold with the crank-case whereby excessive pressure within the crank-case is removed, a valve within said pipe to prevent the return of pressure to said crank-case from said manifold, and a pump cooperating with said pipe for further facilitating the removal of excessive pressure from said crank-case.

1,415,061. FURNACE-RETORT. CHARLES HOWARD SMITH, Short Hills, and EDWARD B. EDWARDS, East Orange, N. J., assignors to International Coal Products Corporation, Richmond, Va., a Corporation of Virginia. Filed May 31, 1919. Serial No. 300,963. 19 Claims. (Cl. 202—9.)



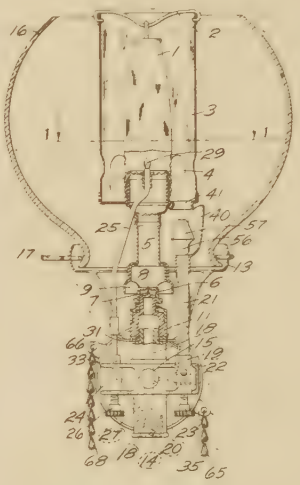
1. A furnace-retort the retort of which has an externally heated vertically extending retort shell with vertically extending shafts therein carrying outwardly extending members, the shafts being arranged so that the outwardly extending members on one shaft cooperate with the outwardly extending members on the other shaft, means for rotating the shafts, means for feeding coal to the interior of the upper portion of the retort shell, and means for conducting the coal when sufficiently carbonized from the lower portion of the retort shell, the outwardly extending members being constructed so as to cause the coal being treated to be gradually passed from the charging end of the retort shell to the discharging end thereof but so as to prevent the coal from passing through the retort at a faster rate than desired.

1,415,062. DELAYED CUT-OFF FOR GAS BURNERS. RAYMOND D. SMITH, Boston, Mass., assignor to Shawmut Machine Works, Inc., a Corporation of Maine. Filed July 24, 1916, Serial No. 110,951. Renewed Sept. 30, 1921. Serial No. 504,492. 3 Claims. (Cl. 67—87.)



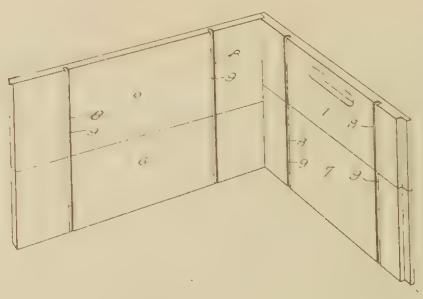
1. In combination; a main gas burner and valve structure embodying automatically acting mechanism for operating the valve and including a separate and auxiliary gas burner positioned to be automatically ignited from said main burner thereby to control the action of said mechanism, and a partial closure device movable to different positions relative to said main burner respectively to shield and to expose the flame thereof,—said movable device being arranged and adapted to direct the flow of gas from the auxiliary to the main burner, thereby to cause ignition of the former from the latter.

1,415,063. DELAYED CUT-OFF ARRANGEMENT FOR MANTLE GAS LAMPS. RAYMOND D. SMITH, Boston, Mass., assignor to Shawmut Machine Works, Inc., a Corporation of Maine. Filed Aug. 7, 1916, Serial No. 113,547. Renewed Sept. 30, 1921. Serial No. 504,493. 1 Claim. (Cl. 67—87.)



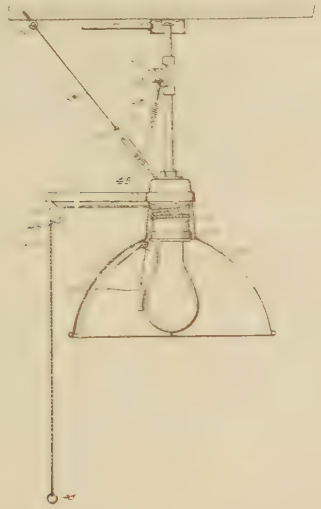
In a thermostatically-governable apparatus employing a gas burner for heating the thermostat thereof, in combination with said burner and a superposed source of ignition therefor; a heat-conductive member extending from said thermostat to a point above the mouth of said burner and thereat formed to permit gas issuing from said mouth to rise past said member toward the said source of ignition; and a shield for the flame of said burner formed and positioned only partially to surround the space between the burner mouth and said member, so that the rise of said gas to its source of ignition may be insured substantially in the presence of free air.

1,415,064. BOX AND CRATE. TIMOTHY V. THOMALL, Chicago, Ill., assignor to Milk Bottle Crate Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 11, 1921. Serial No. 460,223. 9 Claims. (Cl. 217—17.)



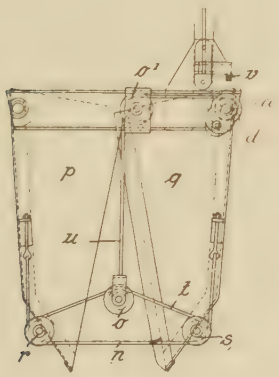
1. A box or crate side or end comprising a plurality of sections, and a clamping wire engaged at its ends with the top and bottom edges of the side or end, said wire being of a length which will permit the sections and wire to be assembled with the sections tilted relative to each other and their adjacent edges engaging, and said wire adapted to clamp and hold the sections rigid with their edges abutting when the sections are sprung into alignment.

1,415,065. LIGHTING-FIXTURE-CLEANING DEVICE. EDWIN D. TILLSON, Chicago, Ill., assignor to Associated Engineers Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 19, 1920. Serial No. 374,959. 18 Claims. (Cl. 240—1.)



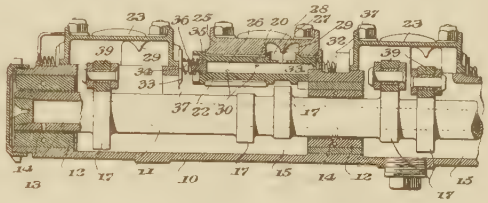
1. In a lighting fixture, wiping means for cleaning the active faces of said fixture, means for operating said wiping means to impart successive movements always in the same direction thereto upon successive operations of said operating means, and a cord for actuating said operating means.

1,415,066. MEANS FOR CLOSING AND OPENING SKIPS. FRANZ UHLIG, Berlin, Germany. Filed Sept. 14, 1920. Serial No. 410,315. 5 Claims. (Cl. 37—30.)



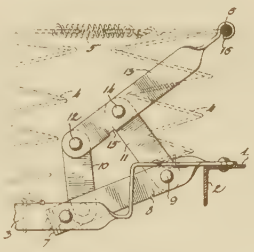
5. In a skip of the clam-shell type, a pulley mounted on each half near its lower end, a cable connecting the two pulleys, an intermediate pulley for tensioning the upper strand of the cable to close the halves, a cable connected to this intermediate pulley, and means for winding up and unwinding the cable mounted on one of the halves embodying a shaft, a ratchet-wheel affixed thereto, a rotatable member carrying a pawl normally engaging the ratchet-wheel and provided at its upper end with a notch, and a manually-operable stop adapted to engage into said notch to lock the member against rotation.

1,415,067. HYDROCARBON MOTOR. JESSE G. VINCENT, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 7, 1920. Serial No. 357,023. 13 Claims. (Cl. 64—24.)



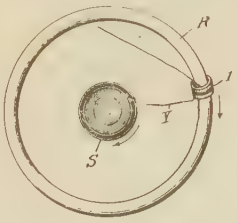
10. In a hydrocarbon motor, in combination, a casing, alined bearings therein, a pair of rock shafts mounted in said bearings, means for conducting oil to said bearings, and means cooperating with adjacent rock shafts and bearings for closing the ends of said bearings, thereby preventing the escape of oil therefrom.

1,415,068. SIDE THRUST SUPPORT FOR SPRING-BED BOTTOMS. SAMUEL WEISSMAN and RALPH WEISMAN, Detroit, Mich. Filed Feb. 13, 1922. Serial No. 536,119. 3 Claims. (Cl. 5—29.)



1. The combination with a spring bed bottom having an upper frame, a lower frame, supporting members carried by said lower frame, and springs on said supporting members, of side thrust supports at the sides of the spring bed bottom, each side thrust support comprising an inclined base piece carried by the lower frame, an inclined supporting piece connected to the upper frame, and linkage connecting the base and supporting pieces, said linkage causing the supporting piece to swing inwardly when the upper frame is subjected to pressure.

1,415,069. RING TRAVELER. PHILIP C. WENTWORTH, Providence, R. I. Filed Jan. 11, 1921. Serial No. 436,585. 12 Claims. (Cl. 118—61.)

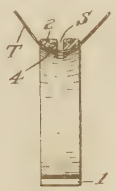


1. A ring traveler comprising a circle portion and terminal horns and having an opening through said circle portion.

1,415,070. RING TRAVELER. PHILIP C. WENTWORTH, Providence, R. I. Filed June 4, 1921. Serial No. 474,987. 4 Claims. (Cl. 118—61.)

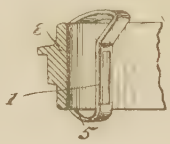
1. A ring traveler comprising an annular body provided with openings.

1,415,071. RING TRAVELER. PHILIP C. WENTWORTH, Providence, R. I. Filed Sept. 19, 1921. Serial No. 501,510. 3 Claims. (Cl. 118—61.)



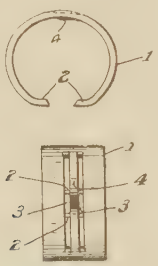
3. A ring traveler having a concavo-convex bow portion with the convexity disposed towards the ring and having an opening through said bow portion.

1,415,072. TWISTING TRAVELER. PHILIP C. WENTWORTH, Providence, R. I. Filed Sept. 19, 1921. Serial No. 501,511. 14 Claims. (Cl. 118—61.)



1. A twisting traveler for use on a vertical twisting ring and having a lubricant passage between its ends.

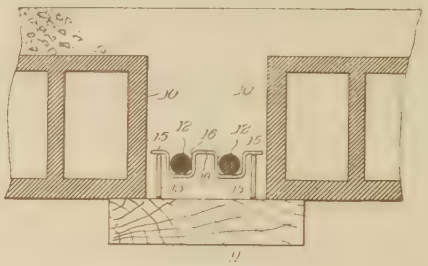
1,415,073. RING TRAVELER. PHILIP C. WENTWORTH, Providence, R. I. Original application filed Jan. 11, 1921, Serial No. 436,585. Divided and this application filed Nov. 5, 1921. Serial No. 513,119. 7 Claims. (Cl. 118—61.)



1. A ring traveler comprising a body provided with a plurality of rectangular shaped openings therethrough.

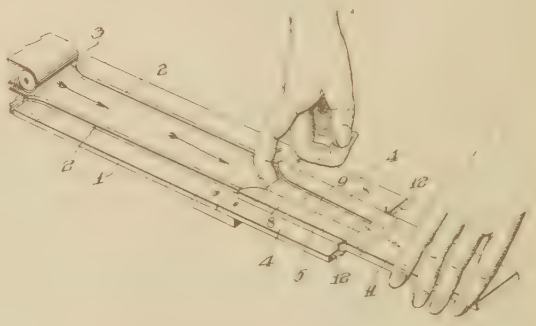
1,415,074. CONCRETE BEAM CHAIR. WILLIAM E. WHITE, Chicago, Ill. Filed Sept. 4, 1920, Serial No. 408,294. Renewed Mar. 2, 1922. Serial No. 540,569. 7 Claims. (Cl. 72—122.)

1. In a chair adapted to be located between adjacent tiles, the combination of a pair of inverted V-shaped supports and a connecting member welded to the apex of each support, said member being bent to provide a seat



for a reinforcing rod, the ends of the member serving to space the chair from the tiles, substantially as described.

1,415,075. DEVICE FOR FILLING CARTONS OR BOXES. BERTRAND K. WILBUR, Haverford, Pa., assignor to H. O. Wilbur & Sons, Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 11, 1920. Serial No. 429,863. 2 Claims. (Cl 226—18.)



1. In a receptacle filling device, primary supply aprons, a table leading from the latter, longitudinally guiding bars on said table, a channelled chute having a longitudinally extending passage in its upper side, and a support for said chute longitudinally continuous of said table, the entrance end of said passage having its walls flaring outwardly.

1,415,076. INSULATING COMPOSITION. ROBERT R. WILLIAMS, Roselle, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Dec. 26, 1919. Serial No. 347,533. 7 Claims. (Cl. 106—13.)

1. A composition of matter comprising fused quartz and rubber.

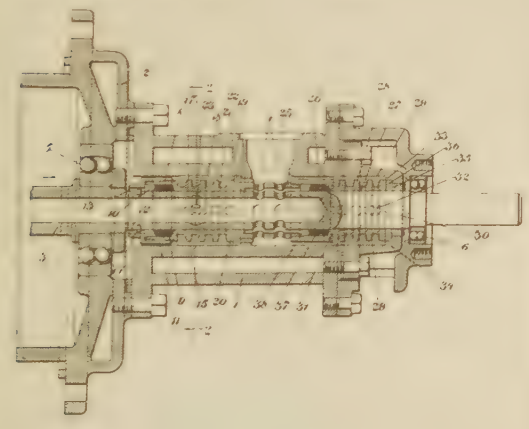
1,415,077. SAFETY RAZOR. JOHN A. WILLIAMSON, Denver, Colo. Filed Aug. 26, 1921. Serial No. 495,493. 8 Claims. (Cl. 30—12.)

1. A finger tip grasping safety razor, comprising a reversely curved finger tip grasping plate arranged to be held by the tips of the fingers in shaving position, said plate being provided with a support for interchangeable razor blades, provided with an aperture, means for releasably securing said razor blade in said support, and a movable safety guard for said razor blade, including a housing, for securing the razor blade against displacement therefrom; said support having a wall member, and means for releasably but positively clamping said razor blade against said wall member; said support consisting of a channeled member provided with a flat bottom member arranged to receive said razor blades against the inside

portion wall of its outer side, and a tilting and turning member secured in said channeled member, provided with free ends, one of which is arranged to clamp said razor

blades against said channeled members outer side wall and the other is arranged to form a safety guard for the cutting edge of said razor blades.

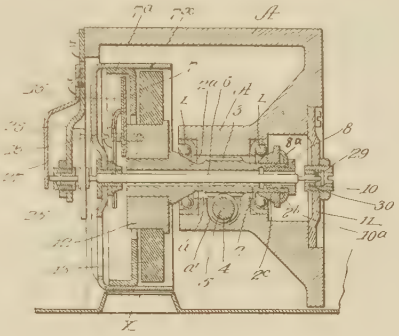
1,415,078. METALLIC PACKING. EDWARD WILSON, St. Louis, Mo., assignor to Wilson Engineering Company, St. Louis, Mo., a Corporation of Missouri. Filed Mar. 12, 1920. Serial No. 365,167. 17 Claims. (Cl. 286—7.)



2. A packing, comprising a lining having a plurality of thrust bearing surfaces, in combination with a revoluble member journaled in the lining and engaging said surfaces, a circumferential shoulder on said member, means for conducting a lubricant to said bearing surfaces, and an abutment engaging the end of said lining and also engaging said shoulder.

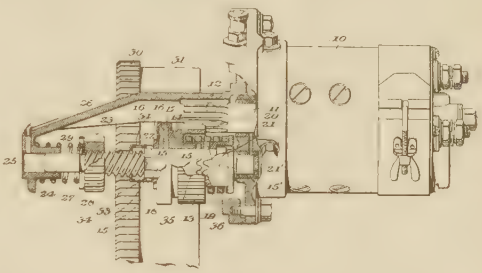
1,415,079. MAGNETIC SPEEDOMETER. ANDREW C. WOOD, Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill., a Corporation of Virginia. Filed Oct. 16, 1920. Serial No. 417,448. 5 Claims. (Cl. 264—13.)

1. In a magnetic speedometer, in combination with a rotor, a magnet device mounted thereon for rotation in a plane containing all the magnet poles; a field-deflecting member carried by the rotor extending opposite the magnetic gap; a drag member pivoted for oscillation about the axis of the rotor, extending in the plane of its oscillation proximate to the magnet and to the field-deflecting member; a carrier for the drag member which extends from the pivot spindle of the latter radially past the outer margin of the field-deflecting member and thence transversely



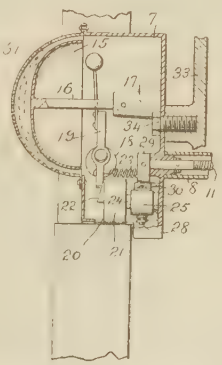
of the plane of rotation of said member outside the path of rotation thereof to reach the drag member for securement of the latter thereto.

1,415,080. HYDROCARBON MOTOR. LIONEL M. WOOLSON, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 7, 1920. Serial No. 357,033. 16 Claims. (Cl. 74—7.)



1. Starting mechanism comprising a drive shaft, a driven shaft, a source of power connected to said drive shaft, connecting means between said shafts adapted to build up the torque on the driven shaft, and means for positively connecting said shafts when the torque has been built up to a predetermined degree.

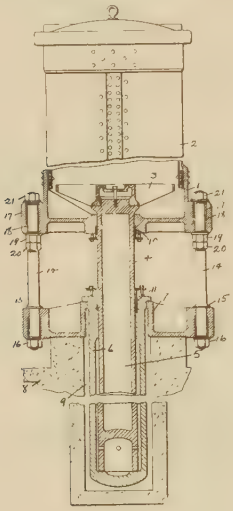
1,415,081. THIEF ALARM FOR AUTOMOBILES. CHARLES L. WRIGHT, Kansas City, Mo. Filed Aug. 13, 1919. Serial No. 317,362. 1 Claim. (Cl. 116—33.)



In an alarm of the kind described, the combination with a running part of an automobile, of a gong, a pivoted clapper arranged to strike the gong, a pivoted member, a wheel rotatable on the pivoted member and arranged to be moved thereby into and out of driving engagement with

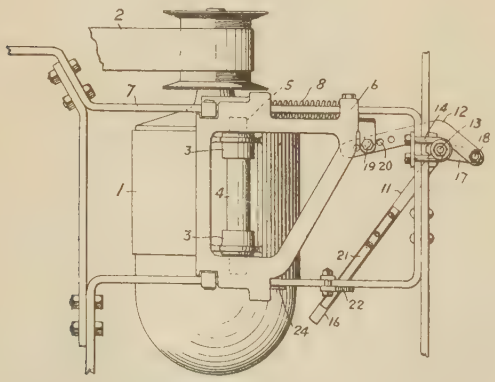
said running part, the wheel having a cam arranged to engage the clapper and to force the latter away from the gong, a spring for normally forcing the clapper into engagement with the gong, a spring for normally forcing the pivoted member to a position in which the wheel will be disengaged from the running part, a spring carried by the pivoted member, and a manually rotatable member movable to and from a position in which it will press against the spring carried by said pivoted member in a manner such that the pivoted member will press the wheel against said running part, substantially as set forth.

1,415,082. VULCANIZING PRESS. EDWARD E. ALLEN, Erie, Pa., assignor to Allen Machine Company, Erie, Pa., a Corporation of Pennsylvania. Filed Aug. 11, 1920. Serial No. 402,879. 4 Claims. (Cl. 18—17.)



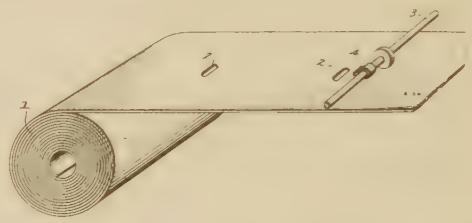
1. In a vulcanizing press, the combination of a vulcanizing chamber having a bottom head; a hydraulic chamber in alinement with the vulcanizing chamber; a base on which the hydraulic chamber and vulcanizing chamber are mounted; a ram in the vulcanizing chamber; a piston extending from the ram through the head and base; and a series of posts each detachably and separately secured to the head and base and supporting the vulcanizing chamber.

1,415,083. SUSPENSION FOR TRAIN-LIGHTING DYNAMOS. FRANK G. BEETEM, Philadelphia, Pa. Filed July 27, 1921, Serial No. 487,947. Renewed Mar. 17, 1922. Serial No. 544,688. 6 Claims. (Cl. 105—106.)



1. In a car lighting system the combination of a suspension carriage, a support for the carriage permitting longitudinal motion thereof with respect to the car, a dynamo pivotally supported from the carriage, means for driving the dynamo from the car axle, a lever fulcrumed from a point fixed with respect to the car, and a link connecting the lever with the carriage whereby the position of the latter may be adjusted with respect to the car.

1,415,084. PAPER ROLL FOR ROLLER COPYING MACHINES. RICHARD BERGER, Bonn-on-the-Rhine, Germany, assignor to Firm F. Soennecken, Bonn-on-the-Rhine, Germany. Filed Oct. 24, 1913. Serial No. 797,097. 1 Claim. (Cl. 100—67.)

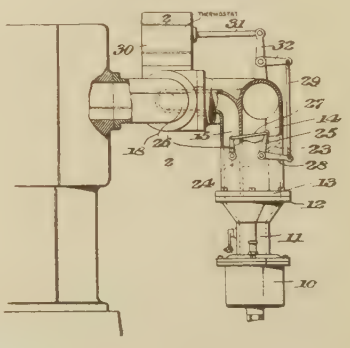


A device for automatically actuating the feeding and cutting mechanism of copying machines of the endless band type including a rock shaft which extends transversely of the endless band, said shaft being arranged for connection to the feeding mechanism, and a relatively wide gravity tongue on said shaft, said tongue being adapted to drop in slots located at intervals in the endless band.

1,415,085. HIGH SPEED TOOLS MATERIAL. ANTON BOERDER, Toledo, Ohio, assignor, by mesne assignments, to U. S. High Speed Steel & Tool Corporation, New York, N. Y., a Corporation of New York. Filed May 15, 1918. Serial No. 234,679. 9 Claims. (Cl. 75—1.)

1. An alloy high speed steel tool free from internal marks as a solid and of uniform internal structure.

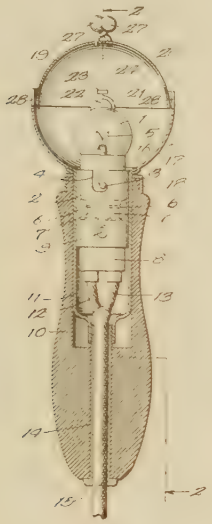
1,415,086. HYDROCARBON MOTOR. HAROLD D. CHURCH, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed June 6, 1919. Serial No. 302,127. 4 Claims. (Cl. 123—122.)



3. In combination with the cylinders of an internal combustion engine, an exhaust manifold, an intake mani-

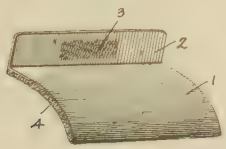
fold having a portion thereof adapted to be heated by the exhaust manifold, valve means for controlling the flow of the mixture through the inlet against said heating portion and a thermostat controlled in operation by the temperature of the motor for operating said valve means.

1,415,087. LAMP. HARRY A. DOUGLAS, Bronson, Mich. Filed Apr. 4, 1921. Serial No. 458,554. 8 Claims. (Cl. 240—54.)



1. The combination with a lighting element; of a casing therefor having a closure in the form of a cup that is divided substantially in halves, each half of the closure being adjustable from in front of the lighting element.

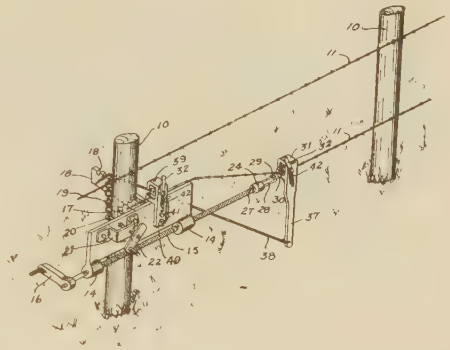
1,415,088. ERASING SHIELD. MILLARD EDMUNDSON, San Francisco, Calif. Filed May 6, 1921. Serial No. 467,396. 3 Claims. (Cl. 120—41.)



3. An erasing shield comprising a curved body portion, a finger grip extending angularly therefrom and having roughened faces thereon and a resilient composition fixed to the inner curved face of said body portion.

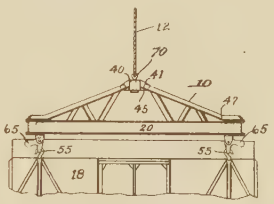
1,415,089. WIRE STRETCHING MACHINE. ELIAS J. ELIAS, Omaha, Nebr. Filed June 8, 1921. Serial No. 476,059. 4 Claims. (Cl. 254—82.)

1. In a wire fence strand stretcher, a body portion provided with an arm adapted to engage across a post, a chain carried by the body portion adapted to engage about the post, said arm having means for adjustably receiving an end of the chain therein, means connected to the other end of the chain for drawing the same taut about the post whereby to bind the body portion against the post, a movable member carried by the body portion and a clamp mounted in the movable member



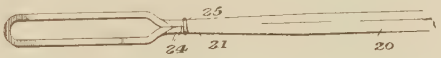
adapted to engage a wire strand whereby upon operation of the movable member said strand may be drawn taut.

1,415,090. DEVICE FOR CONNECTING LOADS TO ELEVATING CABLES. BENJAMIN F. FITCH, Evanston, Ill. Filed June 26, 1920. Serial No. 392,002. 22 Claims. (Cl. 294—67.)



1. A cradle for connecting loads to hoisting cables, comprising a four sided frame having load engaging members carried thereby, said members being arranged to swing in parallel planes, means associated with said members for normally urging them into engagement with a load, and diagonal members extending above the plane of said load engaging members and meeting at a common point whereby the cradle may be raised by a single hoisting cable.

1,415,091. ROD AND METHOD OF MAKING SAME. ADELARD J. GAUTHIER, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Mar. 20, 1920. Serial No. 367,480. 10 Claims. (Cl. 29—152.)

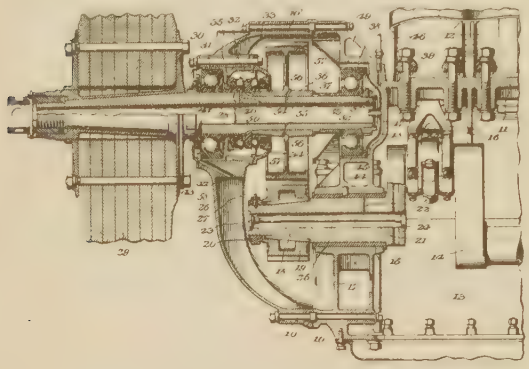


1. A rod formed of tubular material having a slot portion at one end thereof, the portion of the rod adjacent to the slot portion being solid.

1,415,092. PROPELLER DRIVE FOR HYDROCARBON MOTORS. ORMOND E. HUNT, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 27, 1918. Serial No. 231,236. 5 Claims. (Cl. 74—7.)

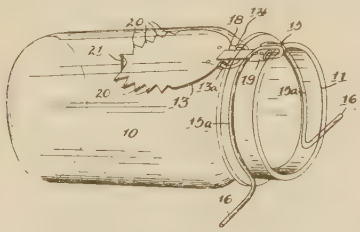
1. The combination with the base and crank shaft of a hydrocarbon motor, of a cover detachably secured to said base and with the base forming a compartment, a pro-

peller shaft extending through the cover, radial and thrust bearings for the propeller shaft in said cover,



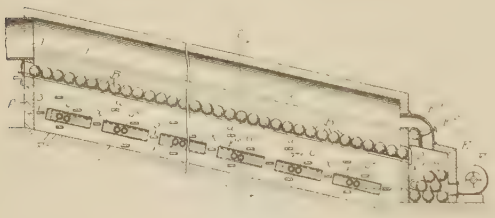
a radial bearing in said base for the inner end of said propeller shaft, and gearing between said shafts.

1,415,093. TRAP. JAMES HURLEY, St. Paul, Minn. Filed June 2, 1921. Serial No. 474,318. 4 Claims. (Cl. 43—61.)



1. In a trap, a horizontal jar having an opening in one end, a rod formed to engage the outer surface of said jar adjacent to said opening, an inwardly projecting loop formed in said rod, a door tiltably supported on said loop and arranged to close said opening, an internal shoulder in said jar forming an abutment for said door, a lug on said door adjacent to said loop and a spring arranged to engage said lug to resiliently hold said door in horizontal position.

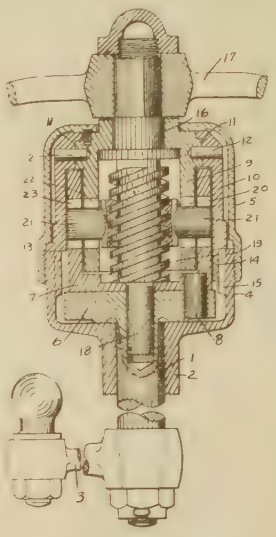
1,415,094. ORE BRIQUETTE. DAVID B. JONES, Chicago, Ill. Original application filed June 22, 1914, Serial No. 846,466. Divided and this application filed June 3, 1918. Serial No. 237,868. 4 Claims. (Cl. 75—65.)



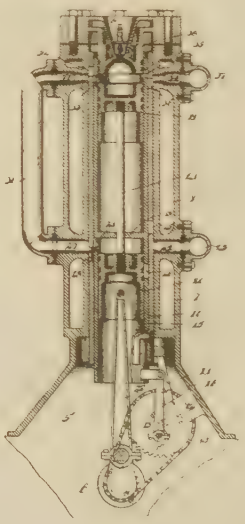
1. A briquette composed of zinc ore, a reducing agent and a binder of bauxite.

1,415,095. STEERING MECHANISM. CHARLES JOHNSON, Highland Park, and FRED G. MEYER, Detroit, Mich. Filed July 8, 1921. Serial No. 483,196. 5 Claims. (Cl. 74—79.)

1. In a steering mechanism, the combination with a steering shaft, of a screw-threaded actuating member for said shaft, a nut engaging the threads of said actuating member, a hollow member carried by said shaft and enclosing said screw, means compelling a limited rotation of said nut, as it is longitudinally shifted by rotation of said actuating member, and means rotatively driving said hollow member from the nut.



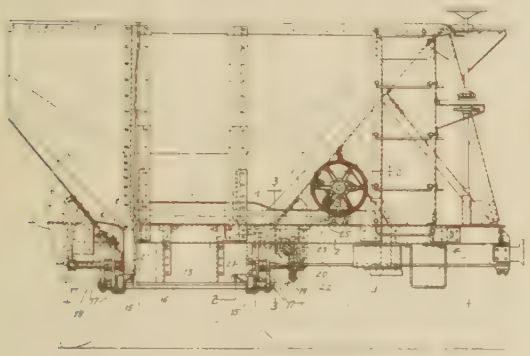
1,415,096. EXPLOSIVE ENGINE. OSCAR E. KALLWITZ, Chicago, Ill., assignor of one-half to Thomas A. Cameron, Chicago, Ill. Filed Mar. 5, 1919. Serial No. 280,725. 6 Claims. (Cl. 123—75.)



4. An explosive engine comprising a crank case; a crank shaft in said case; a valve shaft geared to said crank shaft; a cylinder casing projecting from said crank case, said cylinder being long enough to constitute two cylinders; a sleeve valve reciprocating within said cylinder and operatively connected with said valve shaft; another sleeve valve reciprocating within said first mentioned sleeve valve and having a central partition dividing the same into outer and inner cylinders; pistons operating in said outer and inner cylinders; a piston rod connecting said pistons and passing through said partition; a connecting rod connected with the inner piston and with said crank shaft; an intake pipe leading into the outer end of said inner cylinder, there being ports in said sleeve

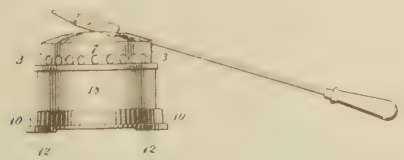
valves controlling the same; a by-pass leading from the outer end of said inner cylinder to the outer end of said outer cylinder, there being suitable ports in said sleeve valves controlling said by-pass; an exhaust pipe leading from the outer end of said outer cylinder, there being suitable ports in said sleeve valves controlling said exhaust pipe; and a spark plug in the outer end of said cylinder and arranged to explode charges in the outer end of said outer cylinder, substantially as described.

1,415,097. DUMPING CAR. ADOLPH KASSLER, New York, N. Y., assignor to American Car and Foundry Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 30, 1920. Serial No. 377,811. 19 Claims. (Cl. 105—250.)



1. In a dumping car, dumping doors, shafts on said doors, cranks on said shafts, stub shafts on said car and angularly disposed cranks on each of said stub shafts connected to said first mentioned cranks to operate said doors.

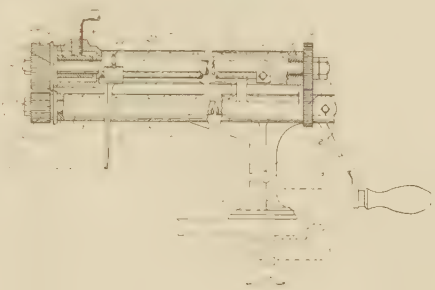
1,415,098. HEATER FOR SOLDERING COPPERS. CHARLES H. KLEIN, Jersey City, N. J., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Feb. 11, 1921. Serial No. 444,254. 5 Claims. (Cl. 126—236.)



3. A device for heating soldering coppers comprising a burner-member for fuel receptacles having a flame-emitting opening of such contour that the issuing flame therefrom will conform to the shape of said coppers, a groove in said burner-member at either end of said opening, means co-operating with each groove for providing separate seats for said coppers, and air-inlets comprising a series of apertures of varying dimensions disposed at either side of said opening.

1,415,099. TUBE-CUTTING MACHINE AND CRIMPER. PAUL J. KOHLER, Carrick, Pa. Filed Mar. 27, 1919. Serial No. 285,538. 1 Claim. (Cl. 164—60.)

In a tube-cutting machine, the combination with a standard, of a pair of laterally extending spaced hollow arms mounted upon said standard, shafts journaled in suitable bearings in said arms, one of said bearings being adjustable vertically, means for rotating said shafts simultaneously, cooperating annular cutting tools secured to said shafts adjacent to one end thereof, cooperating crimping tools secured to said shaft adjacent to said cutting tools, said crimping tools having a smaller diameter than



said cutting tools, one of said arms bearing suitable indicia, a shaft extending longitudinally of the other of said arms, and an adjustable arcuate-shaped stop carried by the last mentioned shaft engaging the arm provided with said indicia.

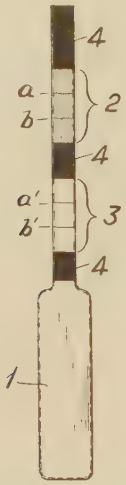
1,415,100. MANUFACTURE OF PAPER BOTTLES. JOHAN GUSTAF V. LANG, New York, N. Y. Filed May 1, 1916. Serial No. 94,587. 5 Claims. (Cl. 229—2.5.)

1. As an article of manufacture, a bottle comprising three essential parts designed for storage or transportation in unassembled form, consisting of a body member made of paper having a contracted upper portion forming the neck of the bottle and a body portion open at the bottom and slightly tapering from the bottom to the point where the body contracts to form the neck, whereby any number of such body members may be inserted into one another for nesting, a bottom member having a flange adapted for insertion into the bottom end of the bottle body and said flange being slightly conic, thereby permitting nesting of such bottom members, and a metal ring U-shaped in cross-section for overlapping and binding the lower end of the body and bottom flange when the parts are assembled.

1,415,101. DISCHARGE INDICATOR FOR STORAGE BATTERIES. HUGH LESLEY, Philadelphia, Pa. Filed Dec. 8, 1919. Serial No. 343,384. Renewed Mar. 17, 1922. Serial No. 544,689. 2 Claims. (Cl. 265—45.)

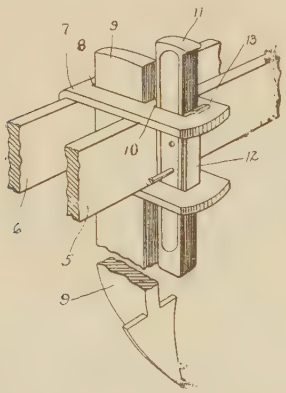
1. A discharge indicator for storage batteries comprising a hydrometer provided with two contrasting zones, one covering the range in specific gravity at complete charge and the other covering the range in specific gravity

at the limit of discharge in relation to specific gravity at completion of charge and each consisting of duplicate sets



of graduations of which one set affords means for selecting in the other set a graduation indicating the allowable or desired limit of discharge.

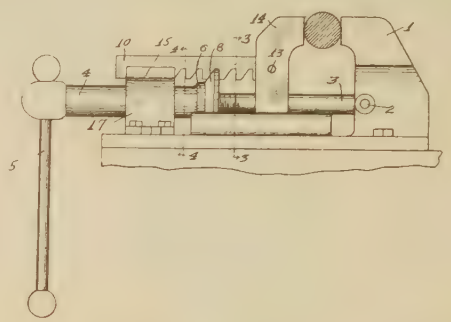
1,415,102. CULTIVATOR-TOOTH FASTENING. ELMER B. MCCARTNEY, Minneapolis, Minn., assignor to Tow Motor Company, Minneapolis, Minn., a Corporation of Minnesota. Filed Aug. 21, 1920. Serial No. 405,117. 3 Claims. (Cl. 55—96.)



1. In a cultivator, the combination of parallel bars, a yoke embracing the bars, a tooth positioned between the bars and extending through the yoke, and means cooperable with one bar and the yoke to cause opposed bar portions to be forced toward each other whereby the tooth is clamped therebetween.

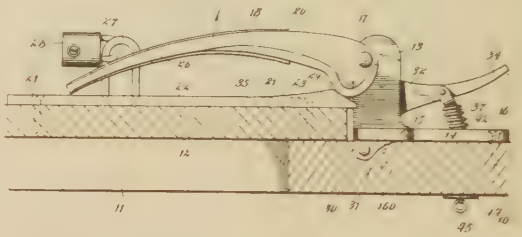
1,415,103. QUICK-ACTION DEVICE FOR VISES OR WRENCHES. FRANCIS W. MCQUEEN, Flint, Mich., assignor of one-half to Lewis M. Hengesbaugh, Flint, Mich. Filed May 12, 1921. Serial No. 468,923. 6 Claims. (Cl. 81—32.)

1. In a clamping device, a fixed jaw, a movable jaw, a threaded member, a connection between said member and the fixed jaw preventing longitudinal movement of the threaded member, a second threaded member rotatable relative to the first threaded member and thereby moved longitudinally of said first threaded member, a toothed member connected to the movable jaw, and means moved longitudinally of the first threaded member by the said longitudinal movement of the second threaded member and cooperating with the teeth of said toothed member to move said movable jaw when said toothed member is in



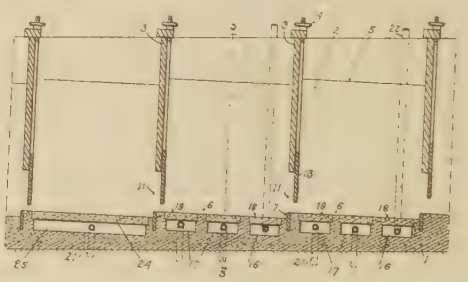
one position, motion of said toothed member about its pivot removing the cooperation between its teeth and said means.

1,415,104. COMBINED DOOR LOCK AND LATCH. FREDERICK MEYER, Buffalo, N. Y. Filed May 15, 1920. Serial No. 381,623. 7 Claims. (Cl. 292—11.)



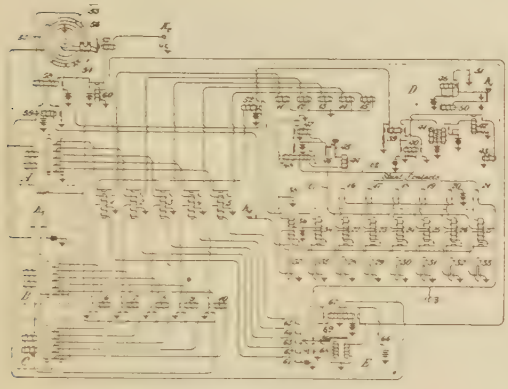
1. A combined door lock and latch comprising a catch, a wedging lever provided with a cam face which is adapted, in one position, to tightly jamb the door closed and in another position to operate the said catch.

1,415,105. ORE CONCENTRATION. DAVID D. MOFFAT, Hayden, Ariz. Filed Feb. 2, 1918. Serial No. 215,219. 2 Claims. (Cl. 83—85.)



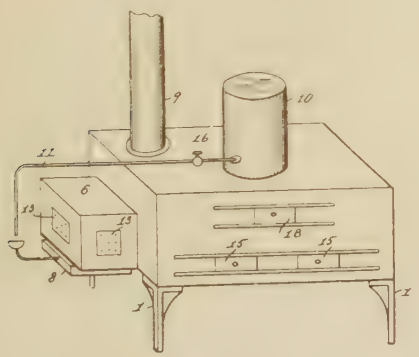
1. A flotation apparatus comprising a vessel adapted to contain ore pulp, means for introducing ore pulp at one end of said vessel and for discharging the same from the other end thereof, a series of partitions extending transversely of said vessel and dividing the same into a series of cells, the floor of said vessel being formed in a series of steps each forming the floor of one of said cells, said partitions terminating upwardly from the edges of said steps to provide openings extending transversely of said vessel to permit said pulp to flow over the edge of one step and downwardly therefrom on to the upper surface of the next step, said steps being provided with porous media through which a gas may be introduced into the pulp in said cells, and overflow lips along the lateral edges of said cells, and spaced at uniform heights above said steps.

1,415,106. CIPHERING DEVICE. LYMAN F. MOREHOUSE, Montclair, N. J., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed July 23, 1920. Serial No. 398,365. 5 Claims. (Cl. 178—22.)



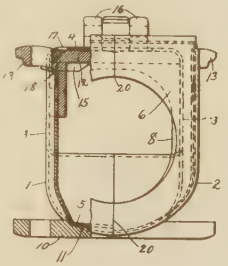
1. A plurality of selecting means upon which may be automatically set up code combinations representing message characters and "stunt" signals, a printer associated with said selecting means and adapted to give a printed indication of said message characters and a visual indication of said "stunt" signals, means operating whenever said printer gives a visual indication of said "stunt" signals for stopping the operation of said printer, and manually operable means associated with said printer for operating said printer.

1,415,107. FURNACE. PETER MURPHY, Newark, N. J. Filed Jan. 11, 1919. Serial No. 270,704. 3 Claims. (Cl. 263—36.)



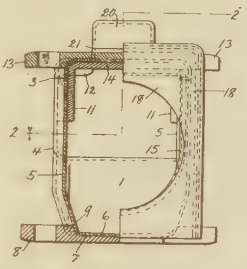
1. In a heating furnace the combination of a furnace casing having an upper and a lower compartment extending lengthwise thereof, connected by a contracted passageway, at one end of the casing, one compartment being provided with an opening for introducing articles to be heated, and the other compartment being provided with an opening for removing such articles, a retort at the other end of the casing having an opening communicating with the lower compartment of the furnace casing, and a flue in the top of the said furnace casing communicating with the upper compartment.

1,415,108. JOURNAL BOX. ALLEN E. OSTRANDER, Ridgewood, N. J., and HERBERT H. WILLIAMS, Brooklyn, N. Y., assignors of one-half to American Car and Foundry Company, New York, N. Y., a Corporation of New Jersey, and one-half to Metropolitan Engineering Company, Brooklyn, N. Y., a Corporation of New York. Filed Mar. 23, 1921. Serial No. 454,762. 6 Claims. (Cl. 64—10.)



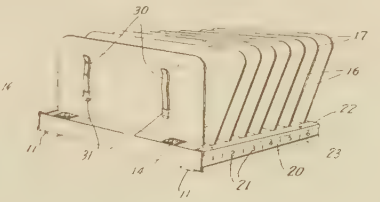
3. A journal box comprising a plurality of sections, a reenforcing member engaging said sections and held in position in said box upon securing said sections together.

1,415,109. JOURNAL BOX. ALLEN E. OSTRANDER, Ridgewood, N. J., and HERBERT H. WILLIAMS, Brooklyn, N. Y., assignors of one-half to American Car and Foundry Company, New York, N. Y., a Corporation of New Jersey, and one-half to Metropolitan Engineering Company, Brooklyn, N. Y., a Corporation of New York. Filed Mar. 23, 1921. Serial No. 454,763. 8 Claims. (Cl. 64—10.)



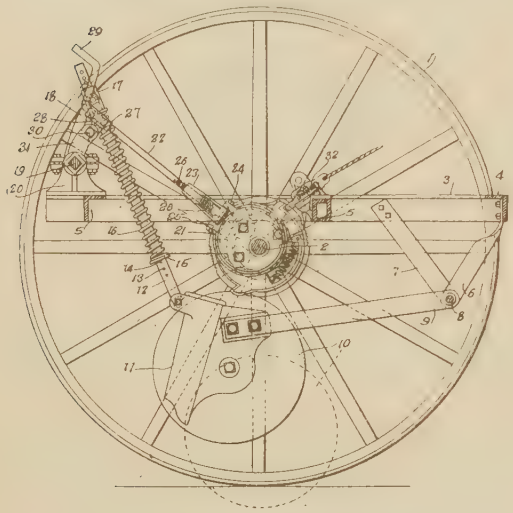
1. A journal box comprising top and cellar sections, inner and outer reenforcing members secured to said top section and a dust guard pocket secured to said box by uniting said top and cellar sections.

1,415,110. FILE RACK. EUGENE PEARL, New York, N. Y. Filed Mar. 14, 1921. Serial No. 452,192. 7 Claims. (Cl. 45—4.)



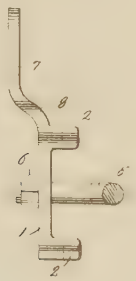
7. A file comprising a main base having a plurality of transverse grooves extending across its upper surface, partition plates freely engageable in the grooves said plates each having an angular edge, an auxiliary base also grooved for the reception of like partition plates, and a channel shaped connecting element engageable in the outer grooves of both bases whereby they are held as a unit and re-enforcing elements at the ends of said bases.

1,415,111. AGRICULTURAL IMPLEMENT. CHARLES H. PELTON, Springfield, Ohio, assignor to The Thomas Manufacturing Company, Springfield, Ohio, a Corporation of Ohio. Filed Jan. 3, 1921. Serial No. 434,510. 6 Claims. (Cl. 74—17.)



1. The combination with power transmitting mechanism, of a pitman secured thereto and adjustable in length, one member of the pitman comprising a rod having a crank by which it is operated to adjust the length of the pitman, a rock shaft, and connections between the rock shaft and rod, said connections permitting the turning of said crank without disconnecting the rod.

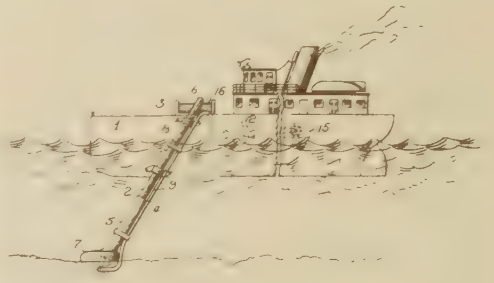
1,415,112. CABLE FASTENER. ALFRED W. PERLITZ, Youngstown, Ohio. Filed July 19, 1921. Serial No. 485,840. 2 Claims. (Cl. 24—135.)



1. A fastening element of the class described comprising a body portion provided with a pair of apertures situated intermediate its ends, a pair of spaced lugs projecting at right angles from the body portion and provided with channels in their ends, a U-bolt and nuts therefor adapted to be attached to the body portion by extending through the apertures provided therein.

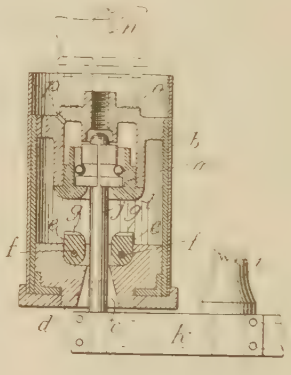
1,415,113. CLAM-DREDGING MACHINE. THOMAS H. PHILLIPS, Jr., Fort Myers, Fla. Filed Aug. 11, 1920. Serial No. 402,861. 7 Claims. (Cl. 37—45.)

1. A clam or mussel dredging apparatus comprising a pipe adapted to extend obliquely downwardly into the water and having a mouth at an angle to said pipe to rest substantially flatly on the bottom, a second pipe adjacent the first pipe and arranged to discharge air



or other gas so as to rise through the first pipe causing eruption of the bottom under said mouth and a rising current of air, water, and bottom, and means for forcing air through said second pipe.

1,415,114. OIL SWITCH. BERNARD PRICE, Johannesburg, South Africa, assignor to himself and The Victoria Falls and Transvaal Power Company, Limited, London, England. Filed Oct. 13, 1920. Serial No. 416,723. 7 Claims. (Cl. 200—150.)

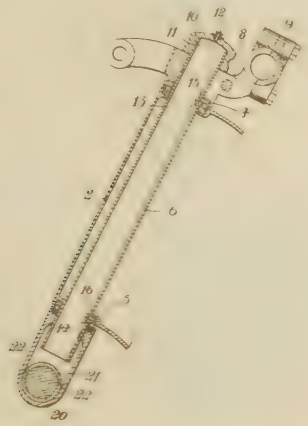


1. An electric oil switch of the type herein referred to, comprising an oil tank, an explosion pot having a stationary contact member therein and an aperture through which oil can pass from said pot to said tank, a movable contact member which, when in the closed position, extends through and practically closes the aperture through which it works and means under the control of said movable contact, adapted during the opening of the switch, automatically to constrict the cross sectional area of the arc and of the stream of oil issuing from said pot into said tank to an extent much less than that of the cross sectional area of said aperture, substantially as described for the purposes set forth.

1,415,115. LUBRICATING MEANS FOR BEARINGS EXTERNAL OF A HOLLOW MEMBER. CYRIL GEORGE PULLIN, Isleworth, England. Filed July 20, 1920. Serial No. 397,566. 3 Claims. (Cl. 64—56.)

1. In combination, on a velocipede, a ball head tube, a frame, a ball race for said ball head tube at the top

of the frame, a perforation in said ball head tube adjacent said ball race, and a projection within said ball head tube adjacent said perforation, a lower ball race towards the bottom of said frame, a perforation in said ball head tube adjacent said lower ball race, and a projection in said ball head tube adjacent said last mentioned perforation, an inlet for a lubricant at the head of said ball head tube and an outlet therefor at the bottom of said ball head tube, the said projections being so constructed as to divert a portion of the lubricant supplied through the inlet to its respective bearing through its adjacent perforation.

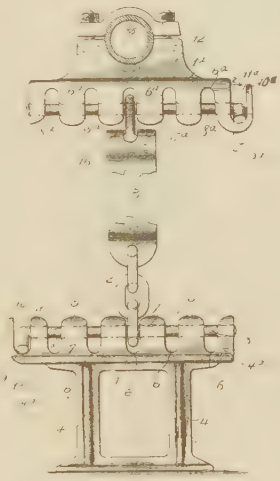


1,415,116. COMBINED AUTOMOBILE TAIL LIGHT AND STATE-LICENSE-PLATE HOLDER. LOUIS ARTHUR RAGAN, St. Louis, Mo. Filed Oct. 8, 1921. Serial No. 506,517. 1 Claim. (Cl. 40—132.)

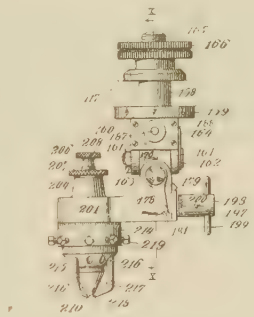
A license plate holder comprising a housing, means within said housing for supporting a license plate, a source of light within the housing, reflectors adjacent to said source of light, a reflector opposed to said first-mentioned reflectors beyond and adjacent to the license plate, said first-mentioned reflectors being disposed to reflect the light rays onto the last-mentioned reflector, and said last-mentioned reflector being disposed to reflect said light rays against the face of the license plate.

1,415,117. ALIGNING MEANS FOR STANCHIONS. HUGO C. RASSMANN, Beaver Dam, Wis., assignor to F. Rassmann Mfg. Co., Beaver Dam, Wis. Filed Jan. 14, 1922. Serial No. 529,256. 3 Claims. (Cl. 119—147.)

1. An aligning device for a stanchion, comprising a part provided with an aligning series of spaced members forming recesses and having aligning holes, a connecting pin movable through said holes, an arm on one end of said connecting pin, and means receiving said arm whereby accidental displacement of the connecting pin will be prevented.



1,415,118. DIAMOND GRINDER. FERDINAND RIES, New York, N. Y. Filed Apr. 18, 1918, Serial No. 229,218. Renewed Oct. 15, 1921. Serial No. 508,051. 2 Claims. (Cl. 51—229.)

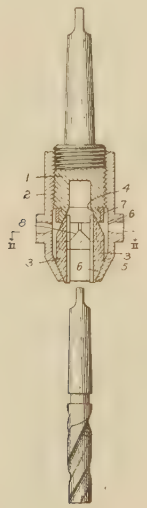


1. A unitary dop holder combining an intermediate block having two worms in transverse planes; a base piece having a micrometer screw engaging one of said worms; and a dop holder having a micrometer screw engaging the other worm, whereby a micrometer adjustment in two transverse planes is provided.

1,415,119. CHUCK FOR TOOL-OPERATING MACHINES. DANIEL C. ROBINSON, Monessen, Pa., assignor of one-half to William C. Johnson, Rices Landing, Pa. Filed July 13, 1921. Serial No. 484,291. 2 Claims. (Cl. 279—56.)

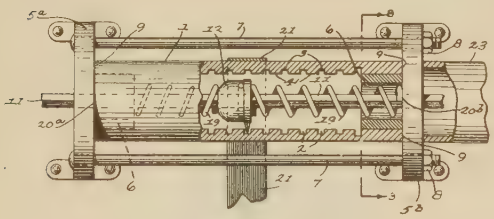
1. A clutch for a tool including a stock adapted to stand in vertical position and provided interiorly with an upwardly tapered seat for clamping jaws, said stock being further provided with a stirrup extending downwardly beyond the said seat, the lower ends of the stirrup being built out on their inner sides, and there provided with opposite pairs of inclined surfaces, a plurality of clamping jaws, consisting each of a narrowed body portion and a widened end portion, the end portion of the jaw adapted to be seated in the aforesaid seat in the stock and the jaw adapted to rest by shoulders formed where

its body and end portions meet upon a pair of the said opposite inclined surfaces of the stirrup, and a follower



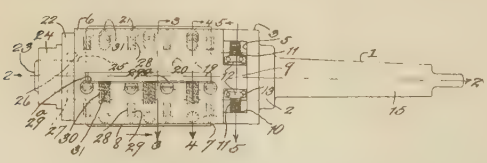
adjustable upon said stock and by adjustment adapted to effect clamping movement of a plurality of jaws assembled between stock and follower.

1,415,120. POWER-TRANSMISSION APPLIANCE. Patrick J. Rooney, New Rochelle, N. Y. Filed June 7, 1921. Serial No. 475,601. 15 Claims. (Cl. 74—14.)



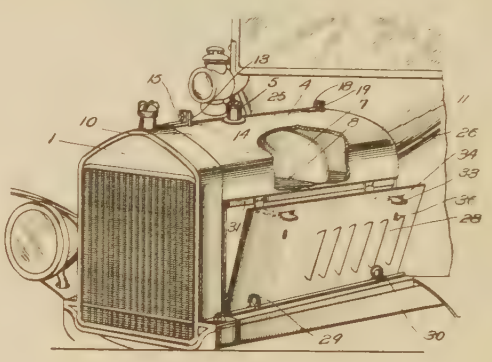
1. In a power transmission appliance in combination, a hollow cylinder with a plurality of turns of one right-handed thread and a plurality of turns of one left-handed thread in the inner surface of such cylinder, leaving diamond shaped elevations between the said threads, a ribbed follower adapted to seat in the said threads, a shaft to be reciprocated, means for connecting the said shaft to the said ribbed follower, means for preventing the rotation of the said ribbed follower and the said shaft to be reciprocated, means for changing the direction of slope of the said ribbed follower at the point of departure thereof from a thread of one direction and of entry into a thread of opposite direction, bearings for the said rotating cylinder and reciprocating shaft and lubricating means therefor, substantially as described.

1,415,121. REAMER. WALTHER C. RUHLANDT, Jackson, Mich. Filed Aug. 12, 1920. Serial No. 402,984. 7 Claims. (Cl. 77—75.)



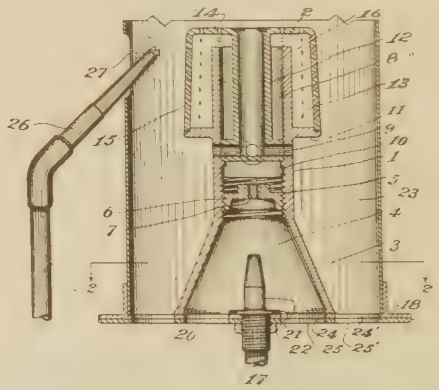
1. In a reamer, an arbor, a plurality of radial blades rockably carried by the arbor and extending radially therefrom, a shell rotatably adjustable on the arbor and through which the blades engage, and means carried by the arbor and operatively connecting with the shell for adjusting the same to retract or extend the blades.

1,415,122. COOLING DEVICE FOR MOTOR-DRIVEN VEHICLES. GEORGE L. SCHOFIELD, Frederick, Md. Filed Aug. 26, 1918. Serial No. 251,452. 3 Claims. (Cl. 123—174.)



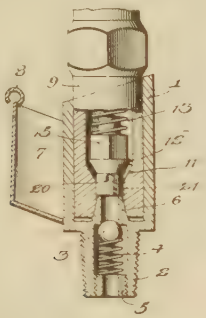
3. In combination with a radiator and a dash of a water cooled motor vehicle, of an auxiliary water reservoir constituting the top of the hood and connecting the dash and the radiator, said reservoir having an offset ledge constituting a louver stop, and hinged louvers cooperating therewith.

1,415,123. HYDROCARBON BURNER. FRED SCHULZ, Fruitvale, Calif. Filed July 20, 1921. Serial No. 486,285. 6 Claims. (Cl. 158—99.)



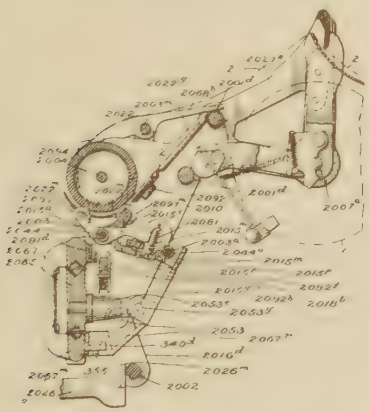
6. A gaseous fuel burner including a tubular body formed with a flared lower end affording a contracted throat and provided adjacent to its upper end with an annular flange, a head enclosing the upper end of said body and provided with a perforated top wall and a perforated skirt extending downwardly therefrom and resting on said flange affording a chamber surrounding the upper end of the head and into which the same discharges, a Venturi plate disposed transversely of the lower end of said throat dividing said body into upper and lower mixing chambers, a fuel supply nozzle discharging axially into said burner mixing chamber, a tubular shell surrounding said body and extending above said head, and a valve for simultaneously varying the air volume admitted into said mixing chamber and into the combustion space afforded between the body and shell.

1,415,124. OILING DEVICE. BERNARD H. SKELLY, Bridgeport, Conn. Filed Sept. 24, 1920. Serial No. 412,488. 5 Claims. (Cl. 184—105.)



5. An oiling appliance for an automobile chassis, comprising a cup member open throughout its length and adapted to be secured to the part to be oiled, an exteriorly beveled nipple upstanding from the bottom of the upper portion of said member and having an inlet whereby the upper and lower parts of said member are in communication, a spring actuated check valve for normally closing the lower end of said inlet, a nozzle connected with an oil supply under pressure, and a check valve within said nozzle for normally closing the latter and having an extension which contacts said nipple when the nozzle is inserted within the cup, whereby the pressure of the nozzle against the nipple will open the valve in the nozzle and effect the discharge of oil to the parts to be lubricated.

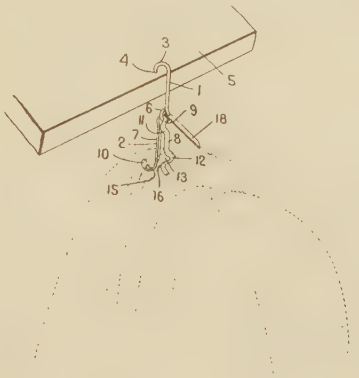
1,415,125. CALCULATING MACHINE. ANGUS N. SMITH, Forty Fort, Pa., assignor to Wales Adding Machine Company, Wilkes-Barre, Pa., a Corporation of Pennsylvania. Filed Nov. 13, 1919. Serial No. 337,665. 25 Claims. (Cl. 235—58.)



1. The combination with a printing mechanism, including types; a single platen shiftable relatively thereto, to present any of a number of separate pieces of paper to the types; independent pressure feed rolls releasably pressed against the platen to coact with the several separate pieces of paper; and means to turn the platen to line space the paper; of means to cast-off one or another of the pressure rolls as the platen is shifted axially to prevent the advance of one or another of the separate pieces of paper notwithstanding the rotation of the platen.

1,415,126. COMBINED COAT AND HAT HOLDER. CARL W. STAHLE, Everett, Mass. Filed May 24, 1919. Serial No. 299,426. 2 Claims. (Cl. 45—13.)

1. In a combined coat and hat hanger, the combination with two members pivotally connected together, one of said members being in the form of a supporting hook and the other constituting a coat and hat-holding member and comprising two resiliently-connected legs between which the brim of a hat may be frictionally held, one of said legs being shaped at its end to form a hook to support a coat or garment, the external curvature on said hook corresponding in size and shape to the internal

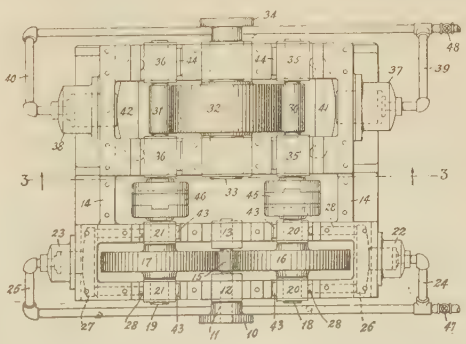


curvature of the supporting hook, and the pivotal connection between said members and the relative length thereof permitting the holding hook to be received within the supporting hook with the hooks facing in opposite directions when the members are folded together, whereby each hook acts to protect the point of the other hook when in folded position.

1,415,127. PRECIPITATED ANTIMONY SULPHIDE AND METHOD OF MAKING SAME. ARTHUR L. STARK, Elyria, Ohio, assignor to The Stibium Products Company, Elyria, Ohio, a Corporation of Ohio. Filed Sept. 17, 1921. Serial No. 501,360. 11 Claims. (Cl. 134—58.)

8. In a method of making precipitated antimony sulphide, the steps which consist in mixing finely ground stibnite, sulphur, barium sulphide and an oxygen compound of an alkali-metal together with water heating under pressure at an elevated temperature, whereby a water-soluble salt of antimony and barium is obtained, and then adding sulphuric acid whereby antimony-pentasulphide and barium sulphate are precipitated.

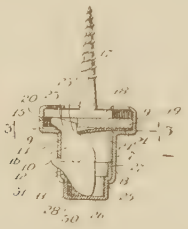
1,415,128. TRANSMISSION AND SPEED-CONVERSION MECHANISM. HENRY HARRISON SUPLEE, New York, N. Y. Filed Feb. 21, 1919. Serial No. 278,348. 2 Claims. (Cl. 74—26.)



1. In a rolling frictional transmission and speed conversion mechanism, a plurality of smooth, hard, metallic, cylindrical surfaces in rolling contact with each other, and means pressing said surfaces together, said means exert-

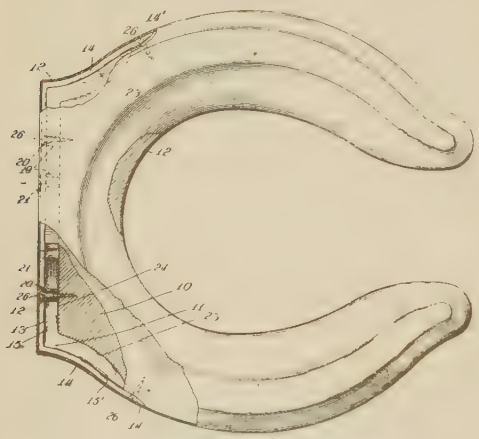
ing forces exceeding 1200 pounds per lineal inch width of face in contact and extending up to the limit of the crushing resistance of the material.

1,415,129. CURTAIN FASTENER. JOHN VODICKA, Chicago, Ill., assignor to Cinch Fastener Corporation, Chicago, Ill., a Corporation of Illinois. Filed July 12, 1919. Serial No. 310,403. 5 Claims. (Cl. 24—211.)



4. In a device of the class described, a cylindrical housing having a hollow base of large diameter, there being a shoulder formed between the main body of the housing and the hollow base of enlarged diameter, said housing being provided with a longitudinally extending slot, a latch fulcrumed on said shoulder and having a nose projecting through the slot, a hollow plunger sliding longitudinally of the housing and projecting beyond the end of the same, and engaging the nose of the latch to swing the latter about its pivot, a spring disc 21 having a spring tongue 24, the disc being inserted in the base of enlarged diameter and the tongue engaging the latch and normally projecting the same, and means for closing the end of the base.

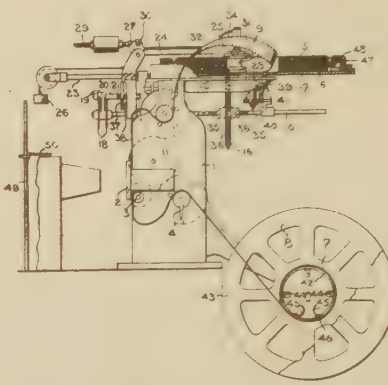
1,415,130. CLOSET SEAT. EARL G. WATROUS, Chicago, Ill. Filed Dec. 26, 1919. Serial No. 347,348. 3 Claims. (Cl. 4—18.)



1. A closet seat comprising a wood body having its rear edge, and rear portions of its side edges slotted substantially parallel with the body plane, a reinforcing structure having a rear piece and side pieces shaped to conform to the corresponding portions of the wood body and these pieces provided with an inwardly extending rib entering the groove of the wood body, and attaching devices securing the stated parts together.

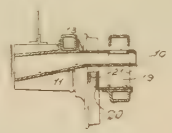
1,415,131. DELIVERING AND WINDING CINEMATOGRAPH FILM. EDWARD JOHN WAY, Johannesburg, Transvaal, South Africa. Filed Nov. 26, 1920. Serial No. 426,580. 13 Claims. (Cl. 88—18.7.)

1. In cinematograph apparatus, the combination with a frame, of a coil carrier mounted to rotate thereon about a substantially vertical axis and providing a friction disc, a driving shaft mounted radially on the frame, a friction wheel on the shaft engaging the friction disc and movable radially of the carrier, means adapted to engage



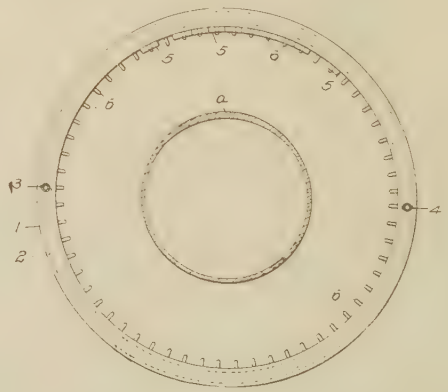
the interior of a film on the carrier and movable radially rigidly with the friction wheel as the film is unwound from the center of the coil, and driving mechanism for the shaft.

1,415,132. BRAKE-HANGER SUPPORT FOR TRUCKS. JOHN C. WHITRIDGE and JACOB C. LARSEN, Columbus, Ohio, assignors to The Buckeye Steel Castings Co., Columbus, Ohio. Filed Apr. 12, 1920. Serial No. 373,196. 3 Claims. (Cl. 188—46.)



2. In a railway truck, the combination of a side frame having a bolster opening and a combined spring seat and brake hanger support separate from and secured to said side frame at the bottom of the bolster opening, the brake hanger support projecting inwardly and upwardly from the seat.

1,415,133. APPARATUS FOR DRAWING GLASS. ALLAN P. WHITTEMORE, Charleston, W. Va. Filed Dec. 10, 1920. Serial No. 429,677. 4 Claims. (Cl. 49—17.1.)



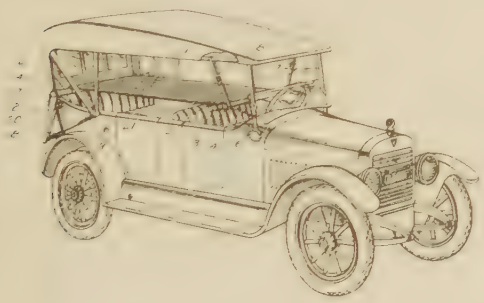
4. In apparatus for drawing glass cylinders, a cooling ring arranged to surround the cylinder adjacent to the

drawing point, and a sectional shield detachably secured adjacent to the inner face of said ring for locally retarding its cooling effect upon the article being drawn.

1,415,134. TREE PROTECTOR. DAVID WILLIAMS, New Orleans, La. Filed Mar. 21, 1921. Serial No. 454,107. 4 Claims. (Cl. 47—39.)

3. A tree protector of the character described comprising an approximately conoidal body of thin sheet metal adapted to be clamped around the tree trunk, a pad of fibrous material disposed at the small end of the body on the inside thereof, a clamping band disposed around the small end of the body on the exterior thereof whereby it may be held against the tree trunk, the lower margin of the body being upwardly and inwardly turned to form a trough disposed entirely beneath the body, an absorbent wicking disposed in the trough, and a container attached to the body and having a passage leading to the trough.

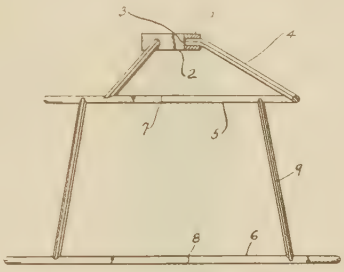
1,415,135. BED. JOSEPH H. WITTMANN, Kansas City, Mo. Filed Sept. 12, 1918. Serial No. 253,715. 4 Claims. (Cl. 5—72.)



1. In a motor vehicle bed, a sheet having means at one end for attachment to a motor vehicle, a winding bar, angular in cross section and located at the other end of the sheet, fulcrum levers having angular sockets into which the ends of the winding bar engages, a fulcrum member for each lever, and yielding connections for the free ends of each lever.

1,415,136. LAMP SHADE AND PROCESS OF MAKING. ADAM ZISKA, Jr., Milwaukee, Wis., assignor to George W. Ziska, Chicago, Ill. Filed July 15, 1921. Serial No. 485,076. 5 Claims. (Cl. 240—108.)

1. The method of making a lamp shade frame, which method comprises forming a central hub with a plurality of round openings, inserting a plurality of radially extending rods of polygonal cross section into said openings and forming concavities in the ends of said rods, forming a spring ring, and thereafter positioning said ring about

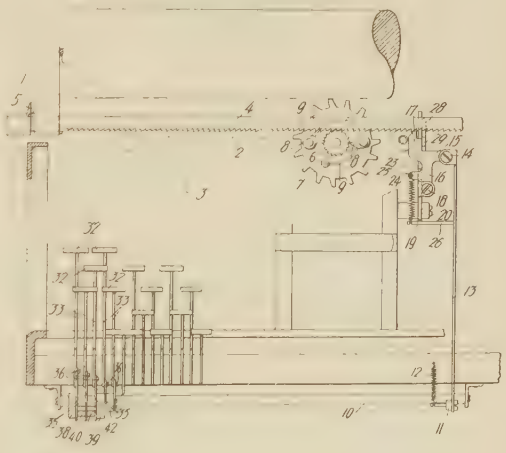


the extremities of said rod by springing said ring and allowing it to snap into the concavities of said rods.

1,415,137. PROCESS OF MAKING PREPARED FOOD. DUNCAN M. ANDERSON, Toronto, Ontario, Canada. Filed Apr. 9, 1918. Serial No. 227,475. 2 Claims. (Cl. 99—11.)

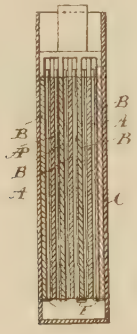
1. A process of making prepared food, consisting in first placing within a mixing machine a quantity of desiccated skim milk, then introducing a quantity of melted chocolate, then adding powdered sugar, and thoroughly mixing the ingredients which are in such proportions that the dry materials will thoroughly absorb the natural fats of the chocolate and the final product is in dry powder form.

1,415,138. TYPEWRITING MACHINE. HARRY BATES, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed July 19, 1919. Serial No. 312,074. 16 Claims. (Cl. 197—91.)



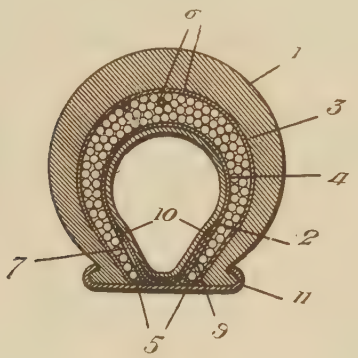
1. In a typewriting machine, the combination with a traveling carriage and means to effect letter-space movements thereof, of a series of back-space keys corresponding in number to the different line-spacing actions to be effected, key-levers actuable by said keys, a back-space device to back said carriage different amounts, and connections between said key-levers and said back-space device whereby uniform movements of said keys will drive said back-space device to effect movements of said carriage varying in extent in accordance with the keys actuated.

1,415,139. STORAGE BATTERY. GUSTAVE A. BAUMETZ, Cleveland, Ohio. Filed Dec. 8, 1919. Serial No. 343,366. 5 Claims. (Cl. 204—29.)



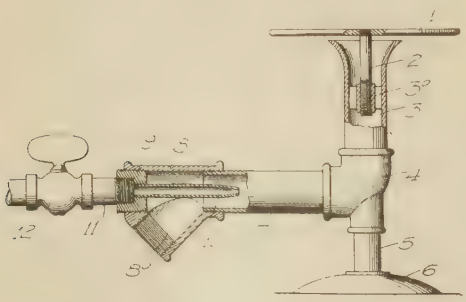
1. In a storage battery, in combination a casing, alternating positive and negative plates therein, insulating plates intermediate of said positive and negative plates, and lateral projections extended from the lower edges of said insulating plates engaging the adjacent plates.

1,415,140. PNEUMATIC TIRE. EDWARD M. BECKMAN, Gary, Ind. Filed May 17, 1920. Serial No. 381,915. 6 Claims. (Cl. 152—18.)



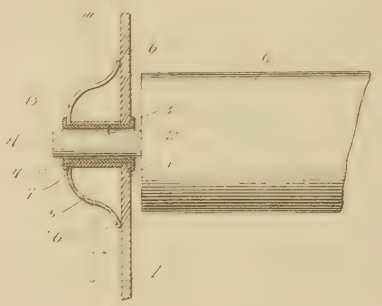
6. A tire protector and cushion comprising a filler to be disposed between the inner tube and the tread of the casing including individual relatively-movable resilient members.

1,415,141. GAS BURNER. PATRICK J. BOHAN, San Diego, Calif., assignor of one-half to J. E. Frazer, San Diego, Calif. Filed Mar. 8, 1920. Serial No. 364,000. 2 Claims. (Cl. 158—117.)



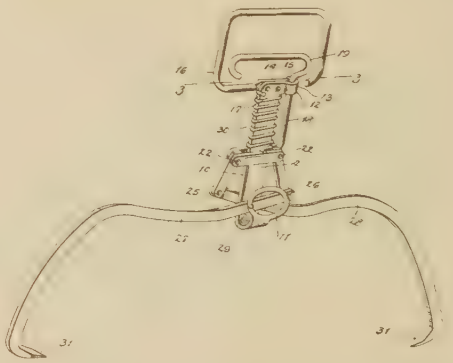
1. A gas burner, including a fuel conducting pipe in L-shape, a fuel distributing nozzle extending some distance into the inlet end of said fuel conducting pipe and an air inlet communicating with said conducting pipe from one side only and back of the end of the distributing nozzle and a flat baffle-plate adjustably mounted over the outlet end of said conducting pipe.

1,415,142. BEARING. WADE W. BOWMAN, Yonkers, N. Y., assignor to Continuous Cloth Towel Cabinet Co., Inc., New York, a Corporation of New York. Original application filed Feb. 15, 1917, Serial No. 148,714. Divided and this application filed July 21, 1921. Serial No. 486,465. 6 Claims. (Cl. 64—10.)



1. A bearing comprising a supporting member, a saucer-shaped member having its open end resting against one surface of the supporting member, and a sleeve extending through mating apertures in the saucer-shaped member and in the supporting member, the end portions of the sleeve being flanged over upon the adjacent portions of the saucer-shaped member and the support to retain all of said parts in fixed relation.

1,415,143. TONGS. CHARLES D. BRIDDELL, Crisfield, Md. Filed Nov. 24, 1920. Serial No. 426,241. 7 Claims. (Cl. 294—100.)



1. In a pair of tongs, a handle shank, a pair of grapple jaws crossed and pivotally associated with said handle shank and with each other at the point of crossing, a handle carried by said shank, a guide at the base of said handle, a supplemental handle within the main handle and working in said guide, and toggle means connecting the supplemental handle with the crossed ends of said jaws.

1,415,144. CRAMPING FORM FOR VIOLIN BOUTS. WILLIAM F. BUBLITZ, Elkhorn, Wis. Filed July 9, 1921. Serial No. 483,585. 2 Claims. (Cl. 144—259.)

1. In a gluing form for violin bouts, a base, a form secured to the base and having channels for the reception of the ends of the bouts to be joined, the mold being further provided with enlarged openings communicating

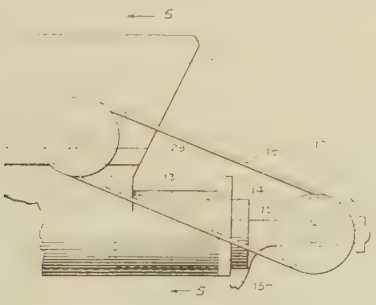
with the channels, a plurality of upright supporting blocks located on the base, screws threaded through the

blocks and provided at one end with handles and heads swiveled upon the other ends of the screws for cramping the ends of the bouts into the channels.

1,415,145. EXTENSIBLE POLE. Charles J. Carlson and Albert W. Larson, Seattle, Wash. Filed May 24, 1920. Serial No. 383,614. 1 Claim. (Cl. 248—3.)

In an extensible rod, the combination with a rod-member, a second rod-member connected thereto for relative longitudinal movement, of a band surrounding both of said members, said band being provided with a slot, a stud protruding from the first named member into said slot to limit the longitudinal movement of such member with respect to said band, a dog, a pin pivotally connecting the dog to said band in clamping relation with respect to the second named member, and a cam lever fulcrumed to said pin and engageable with the first named member or with said dogs, selectively, to respectively effect the extension of the rod or the disengagement of the dog from the second named member.

1,415,146. FEEDING ATTACHMENT FOR STOKERS AND THE LIKE. John Clifford Casler, Chicopee Falls, Mass. Filed Apr. 21, 1921. Serial No. 463,427. 9 Claims. (Cl. 259—39.)

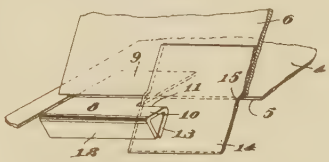


1. A feeding device for stokers of the plunger type, having pockets delivering into the plunger cylinder, and comprising rotating blades arranged in each pocket and arranged to move downward in the pocket in advance of the plunger.

1,415,147. DIRECTIONOMETER. Alonzo Wilson Coleman, Pittsburgh, Pa. Filed July 26, 1919. Serial No. 313,423. 1 Claim. (Cl. 33—222.)

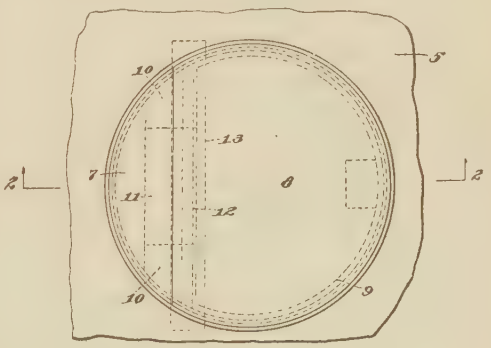
In a device of the character described, a thin flat casing adapted to be carried in the pocket, a disc of opaque material mounted in the casing, a magnetic needle mounted for free turning movement within the casing beneath the disc, said disc being provided with an observation opening, a compass-card secured on said needle to turn therewith, and a transparent closure member secured in the upper end of the casing and acting to secure said disc.

1,415,148. DETACHABLE-COVER CONSTRUCTION. Ernest L. Condon, Medway, Mass., assignor to United Soda Fountain Company, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 3, 1920. Serial No. 349,281. 9 Claims. (Cl. 220—31.)



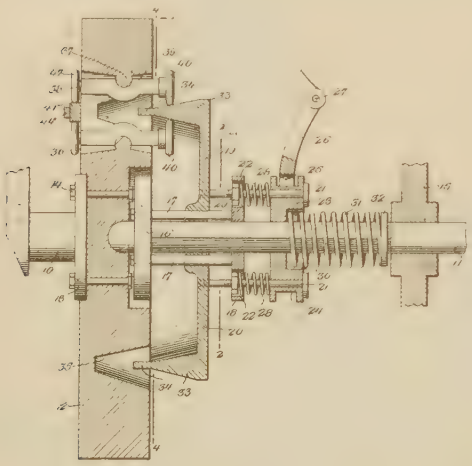
1. In combination, a receptacle top having an opening, and a separable cover for the opening adapted to swing on one edge resting on the receptacle top, such pivot edge registering with one edge of said opening, a tongue extending from the pivot edge of the cover through said opening, and a tongue engaging projection fixed to the receptacle and projecting into said opening whereby to provide an open ended slot for the reception of the edge of said cover.

1,415,149. DETACHABLE-COVER CONSTRUCTION. Ernest L. Condon, Medway, Mass., assignor to United Soda Fountain Company, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 5, 1920. Serial No. 349,460. 13 Claims. (Cl. 220—31.)



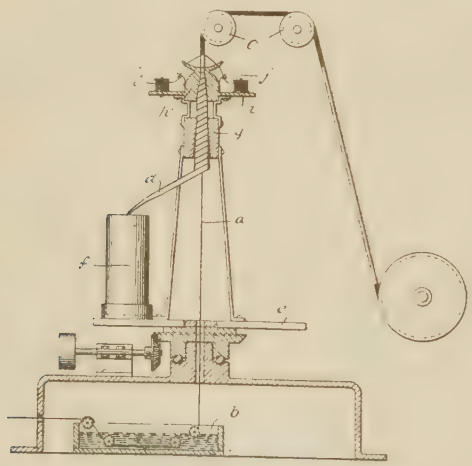
1. In combination, a receptacle top having an opening, a freely removable cover for the opening adapted to swing on one edge as a hinge, ledges adapted to engage and support the hinge edge of the cover throughout its swinging movement, and means to position the cover over the opening.

1,415,150. CLUTCH MECHANISM. LAWRENCE E. CONNER, Jackson, Mich. Filed June 4, 1918. Serial No. 238,211. 5 Claims. (Cl. 192—52.)



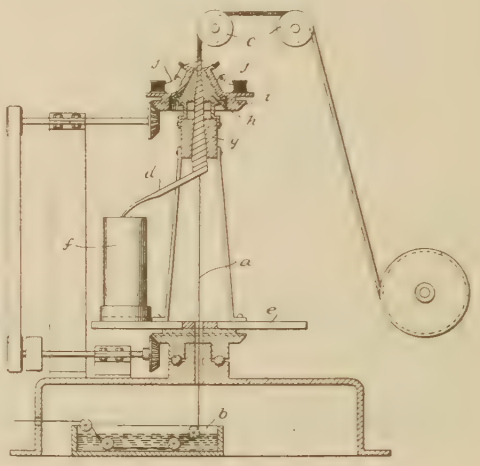
1. In a clutch, the combination of drive and driven members, a flywheel carried upon the drive member, a shiftable coupling member mounted on the driven member, said coupling member having an annular wedge extending toward the flywheel, a pair of arms mounted on the flywheel, spring means yieldingly urging the arms together at their inner ends, said annular wedge being adapted to engage the inner ends of the arms to spread the same apart for yieldingly and gradually connecting the coupling member to the flywheel, and said annular wedge provided with registering circumferential rows of cams upon the inner and outer faces of the wedge adapted to receive the inner ends of said arms thereagainst.

1,415,151. METHOD OR ART OF MAKING INSULATED WIRE. WILLIAM E. COOK, New York, N. Y., assignor, by mesne assignments, to The Peerless Insulated Wire and Cable Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 24, 1917. Serial No. 164,302. 6 Claims. (Cl. 117—40.)



1. The herein described method or art of making insulated wire consisting in winding a cotton sliver spirally about a conductor wire with the edges thereof overlapping, compacting said sliver upon the wire, winding a strand of flexible, absorbent material about and embedding successive convolutions thereof within said sliver while it is compacted, the convolutions of said strand being spaced apart to form ducts therebetween to facilitate the penetration of a viscous composition throughout the body of said sliver, and thereafter saturating or impregnating said sliver and said strand with a viscous composition, whereby its insulating property is increased, the completed wire is waterproofed and the fibers of said sliver and said strand are bonded together.

1,415,152. METHOD OR ART OF MAKING INSULATED WIRE. WILLIAM E. COOK, New York, N. Y., assignor, by mesne assignments, to The Peerless Insulated Wire and Cable Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 24, 1917. Serial No. 164,303. 6 Claims. (Cl. 117—40.)

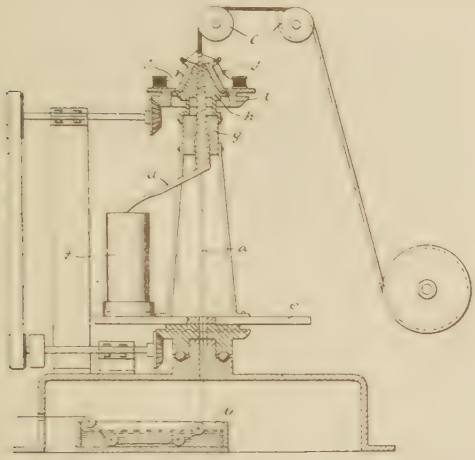


1. The herein described method or art of making insulated wire consisting in winding a cotton sliver spirally about a conductor wire with the edges thereof overlapping, compacting said sliver upon the wire, winding a strand of flexible, absorbent material spirally about and embedding successive convolutions thereof within said sliver while it is compacted, said strand being wound at a different pitch from that at which said sliver is wound, with succeeding convolutions thereof spaced apart whereby said strand will cross the lap between succeeding convolutions of said sliver, and ducts will be formed between succeeding convolutions of said strands to facilitate the penetration of a viscous composition throughout the entire body of said sliver, and thereafter saturating or impregnating said sliver and said strand with a viscous composition whereby the insulating property is increased, the completed wire is waterproofed, and the fibers of said sliver and said strands are bonded together.

1,415,153. METHOD OR ART OF MAKING INSULATED WIRE. WILLIAM E. COOK, New York, N. Y., assignor, by mesne assignments, to The Peerless Insulated Wire and Cable Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 24, 1917. Serial No. 164,304. 4 Claims. (Cl. 117—40.)

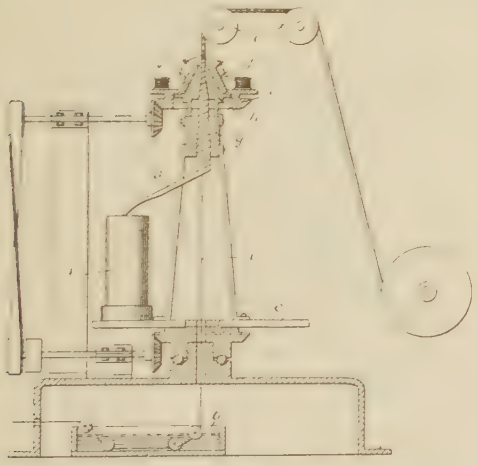
1. The herein described method or art of making insulated wire consisting in winding a cotton sliver spirally about a conductor wire with the edges thereof overlapping, compacting said sliver upon the wire, winding a strand of flexible, absorbent material about and embedding successive convolutions thereof within said sliver while it is compacted, said strand being wound at a higher pitch than said sliver is wound, with succeeding convolutions thereof spaced apart, whereby said strand will cross the lap between succeeding convolutions of said sliver and ducts will be formed between succeeding convolutions of said strands to facilitate the penetration

of a viscous composition throughout the entire body of said sliver, and thereafter saturating or impregnating said sliver and said strand with a viscous composition



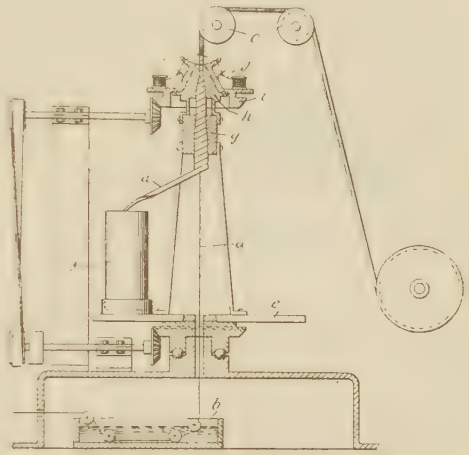
whereby the insulating property thereof is increased, and the completed wire is waterproofed and the fibers of said sliver and said strand are bonded together.

1,415,154. METHOD OR ART OF MAKING INSULATED WIRE. WILLIAM E. COOK, New York, N. Y., assignor, by mesne assignments, to The Peerless Insulated Wire and Cable Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 24, 1917. Serial No. 164,305. 5 Claims. (Cl. 117—40.)



1. The herein described method or art of making insulated wire consisting in winding a cotton sliver spirally about a conductor wire with the edges thereof overlapping, compacting said sliver upon the wire, winding a strand of flexible, absorbent material about and embedding successive convolutions thereof within said sliver while it is compacted, said strand being wound in a direction the reverse of that in which said sliver is wound, the convolutions of said strand being spaced apart to form ducts therebetween to facilitate the penetration of a viscous composition throughout the body of said sliver and thereafter saturating or impregnating said sliver and said strand with a viscous composition whereby the insulating property is increased, the completed wire is waterproofed and the fibers of said sliver and said strand are bonded together.

1,415,155. METHOD OR ART OF MAKING INSULATED WIRE. WILLIAM E. COOK, New York, N. Y., assignor, by mesne assignments, to The Peerless Insulated Wire and Cable Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 24, 1917. Serial No. 164,306. 6 Claims. (Cl. 117—40.)



1. The herein described method or art of making insulated wire consisting in winding a cotton sliver spirally about a conductor wire with the edges thereof overlapping, compacting said sliver upon the wire, winding a strand of flexible, absorbent material spirally about and embedding successive convolutions thereof within said sliver while it is compacted, said strand being wound in a direction the reverse of that at which said sliver is wound, and at a different pitch, with succeeding convolutions thereof spaced apart, whereby said strand will cross the lap between succeeding convolutions of said sliver and ducts will be formed between succeeding convolutions of said strands to facilitate the penetration of a viscous composition throughout the entire body of said sliver and thereafter saturating or impregnating said sliver and said strand with a viscous composition whereby the insulating property is increased, the completed wire is waterproofed, and the fibers of said sliver and said strands are bonded together.

1,415,156. METHOD OR ART OF MAKING INSULATED WIRE. WILLIAM E. COOK, New York, N. Y., assignor, by mesne assignments, to The Peerless Insulated Wire and Cable Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 24, 1917. Serial No. 164,307. 3 Claims. (Cl. 117—40.)

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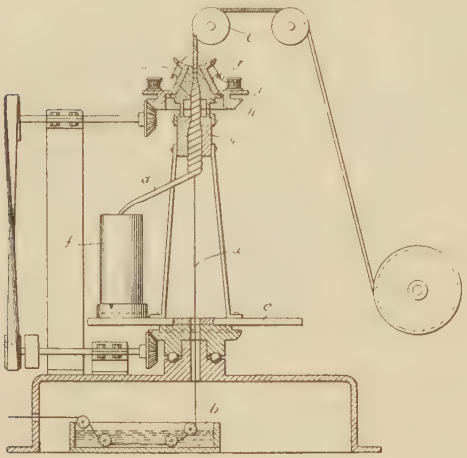
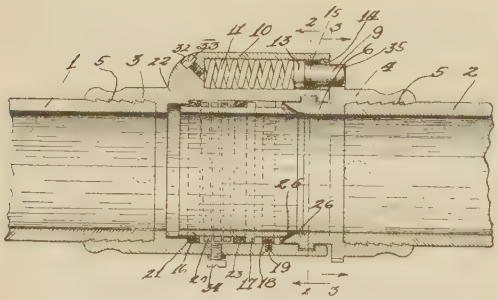
after saturating or impregnating said sliver and said strand with a viscous composition whereby the insulating



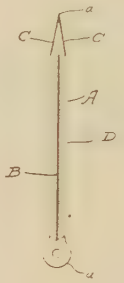
property in increased, the completed wire is waterproofed, and the fibers of said sliver and said strand are bonded together.

1,415,157. PIPE COUPLING. ALBERT B. COURCHENE, Chicago, Ill. Filed Jan. 30, 1920. Serial No. 355,110. 2 Claims. (Cl. 285—175.)



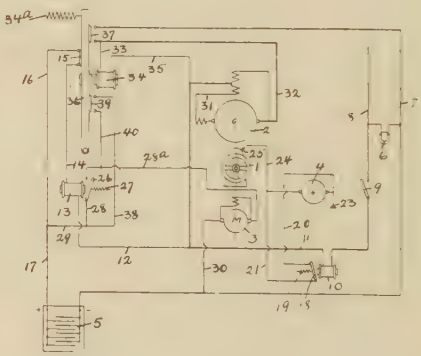
1. In a hose coupling, two cylindrical members, bayonet slots in one of said members, lugs on the other member located to cooperate with said bayonet slots to hold said members together, a casing on the exterior of one of said members, a spring housed in said casing, a plunger pressed by said spring and protruding from said housing toward the other member, a flange on the exterior of said other member located to contact with said plunger and press it toward the interior of said housing when the lugs are introduced into the bayonet slots, said flange having recesses located out of line with the longitudinal parts of said bayonet slots whereby, when the members are rotated relative to one another after the introduction of the lugs into the bayonet slots, the plunger will be brought opposite one of said recesses and the spring will cause it to protrude into said recess, thereby preventing disengagement of said members, a sleeve in the interior of one of said members, a spring between said sleeve and the interior surface of said member, a flange on the exterior of said sleeve bearing against said surface, a shoulder on said surface, the thrust of said spring being exerted against said shoulder and said flange and tending to move the sleeve toward the mouth of said member, packing between said spring and each of said thrust receiving parts, an interior collar secured to said member between said flange and said mouth and acting as a stop to the forward motion of said sleeve, a packing on the forward edge of said sleeve and a packing on the edge of the other member contacting with the packing on the sleeve when the members are united.

1,415,158. HAND AND INDICATOR FOR WATCHES AND LIKE ARTICLES. HERMANN F. CUNTZ, Hartford, Conn., assignor to American Radium Company, New York, N. Y., a Corporation of New York. Original application filed July 2, 1921, Serial No. 482,095. Divided and this application filed Oct. 12, 1921. Serial No. 507,240. 4 Claims. (Cl. 58—50.)



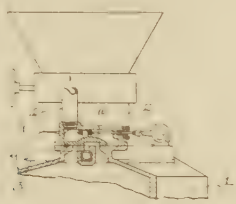
1. An article of the character described comprising a thin flat base, two converging ridges near the outer end and a single central medial ridge formed on the base from near the tip toward the hub.

1,415,159. LIGHTING SYSTEM. GEORGE W. DAGGETT, North Girard, Pa. Filed Dec. 22, 1915. Serial No. 68,292. 3 Claims. (Cl. 290—30.)



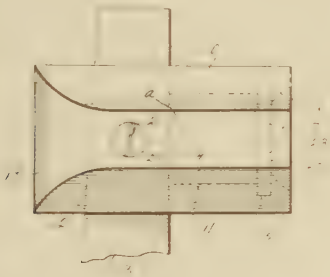
1. In an electric system of the character described, the combination of an engine, a starting motor and charging generator, a generator, mechanical driving connections from said engine to said starting motor and charging generator and said generator, a storage battery, leads normally connected to said battery when said engine is not running, means for connecting said battery to said starting motor and charging generator to start said engine when said battery delivers current to said leads, and means responsive to the engine speed for opening the circuit between said battery and said leads and closing the circuit between said generator and said leads and effecting connection between the starting motor and charging generator and the battery during the operation of the engine.

1,415,160. APPARATUS FOR DRYING MATERIALS. HERBERT H. DOW, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a Corporation of Michigan. Filed May 7, 1919. Serial No. 295,393. 2 Claims. (Cl. 34—34.)



1. In drying apparatus, the combination of a chamber capable of being sealed, and having material supply and discharge openings, air-supply and vacuum lines connected with said chamber and unitary valve-means adapted to control said lines, respectively.

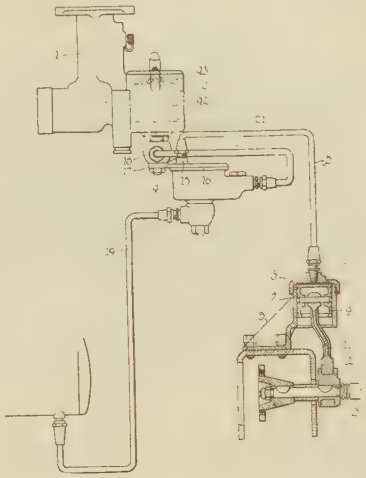
1,415,161. LOOM PICKER. WILLIE DUBOIS and ZOEI DUBOIS, Biddeford, Me. Filed Oct. 3, 1921. Serial No. 504,971. 1 Claim. (Cl. 139—21.)



A picker of the character described comprising a body formed with a longitudinally extending chamber opening at one end of the body and with a picker stick passage extending transversely through the rear end of the body and intersecting the rear end of the chamber, the chamber having a diameter greater than the width of the picker stick passage, the forward end of the chamber having an annular recess defined at its forward end by an inwardly projecting annular wall, the interior diameter of this wall being smaller than the interior diameter of the chamber and the outer face of this wall being outwardly and forwardly flared, a filler disposed within said chamber, and a holding rim, the peripheral portion of said rim seating within the annular recess, whereby said rim holds the filler in the chamber, the filler having an opening substantially centrally thereof, the opening defined by the rim being of greater diameter than the diameter of the opening in the filler, the side and inner end walls of the chamber being imperforate, the stick to which the picker is applied being comprised in the inner wall of the chamber.

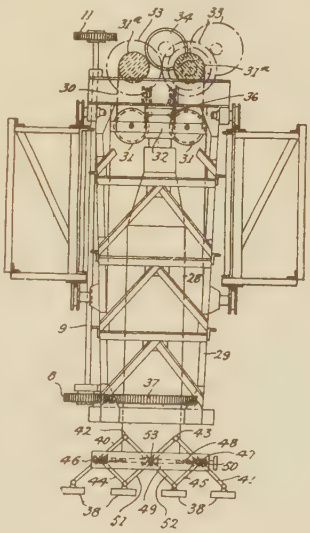
1,415,162. FUEL-FEED SYSTEM. FRANCIS EDWIN EDWARDS, Chicago, Ill., assignor to Stromberg Motor Devices Company, Chicago, Ill., a Corporation of Illinois. Filed May 24, 1918. Serial No. 236,271. 9 Claims. (Cl. 103—8.)

1. In combination, a receiving chamber, a pumping chamber of constant size having an inlet valve and an outlet valve for liquid, an air chamber enclosing a body of air and communicating with said pumping chamber, one wall of said air chamber being movable to produce compressions and rarefactions of said body of air, and valve means controlled by the level of liquid in the receiving chamber, for controlling the effective application of said compressions and rarefactions to said pumping chamber, said valve means shutting off the flow of liquid from the pumping chamber to the receiving chamber to cause the



liquid to accumulate in the pumping chamber and thus cut down the effective volume of the air chamber.

1,415,163. OVERHEAD TRAVELING CRANE. LAWRENCE ENNIS, Linthorpe, England, and ALEXANDER JACK, Motherwell, Scotland. Filed July 23, 1918. Serial No. 246,388. 10 Claims. (Cl. 212—17.)

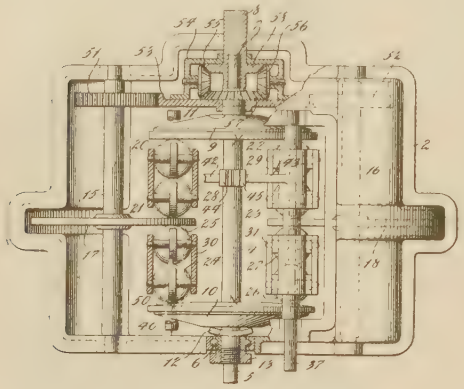


1. An overhead crane comprising an overhead trolley and a vertical frame secured to said trolley, a mast suspended from said trolley, a ring secured to said frame, means for rotating said mast and guiding it in said ring, a cross runway girder fixed to and rotating with said mast and symmetrically disposed on each side thereof, hoisting and gripping appliances carried by said cross runway girder on each side of said mast and means for displacing said appliances along the girder.

1,415,164. POWER TRANSMISSION. HANNIBAL C. FORD, New York, N. Y., assignor to Ford Instrument Company, Inc., a Corporation of New York. Filed Mar. 2, 1917. Serial No. 151,917. 25 Claims. (Cl. 24—34.)

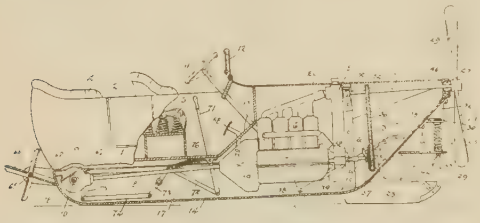
1. A variable speed power transmission comprising a plurality of rotatable elements, a speed varying power transmitting device interposed between one of said elements and each of the other said elements for transmit-

ting power from one element to the other, said power transmitting device being arranged to be in continuous



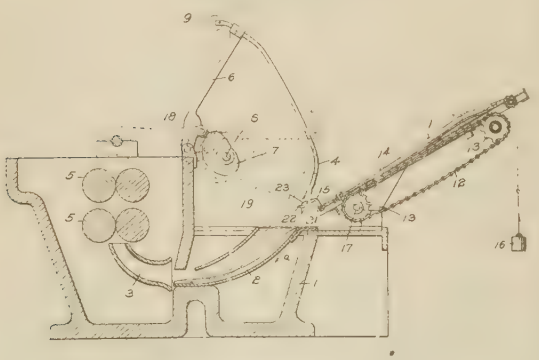
rolling contact with and to engage diametrically opposed points on said one element to thereby equalize the lateral thrust thereon.

1,415,165. AUTOMOBILE SLED. W. SIMON FRASER, Marieapolis, Manitoba, Canada. Filed Apr. 26, 1920. Serial No. 376,773. 11 Claims. (Cl. 180—3.)



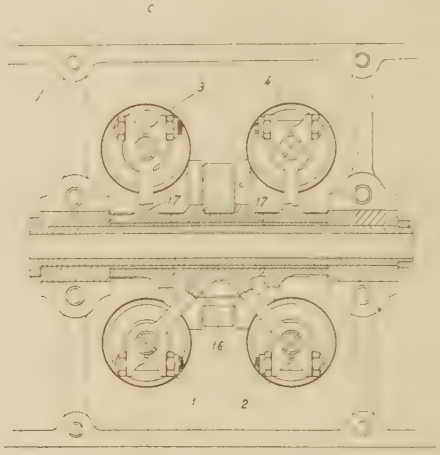
1. The combination with an automobile body having the wheels thereof dismounted, of a flat bottomed casing located beneath and supporting the automobile body and having the front end thereof extending upwardly in advance of the automobile, steering runners located at the front end of the casing and a front propeller driven by the automobile engine.

1,415,166. TIN POT. JOHN W. FREE, Woodlawn, Pa., assignor to Jones & Laughlin Steel Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 22, 1921. Serial No. 463,520. 9 Claims. (Cl. 91—12.6.)



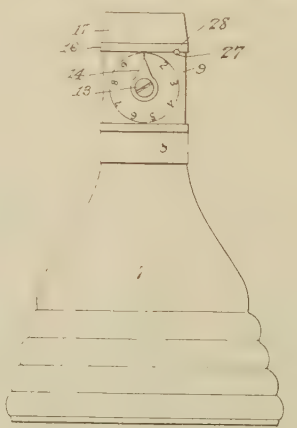
1. In combination with a tin pot of a pusher adapted to reciprocate vertically, means for periodically elevating said pusher against gravity and alternately allowing it to descend by gravity, the arrangement being such that the gravitally impelled descending pusher engaging a plate from behind may impel it through the tin pot.

1,415,167. VALVE MECHANISM FOR INTERNAL-COMBUSTION ENGINES. ERNEST FUCHS, Paris, France, assignor to Louis Renault, Billancourt, Seine, France. Filed Mar. 31, 1919. Serial No. 286,563. 1 Claim. (Cl. 123—90.)



An overhead valve operating mechanism for internal combustion engines, comprising a pair of tappet levers of U-shape adapted to control one pair of valves, a pair of tappet levers of inverted V-shape for controlling another pair of valves oppositely arranged to said first mentioned pair of valves, a common shaft for pivotally supporting said tappet levers, a cam shaft for operating said tappet levers, the open ends of the U-shape and V-shape levers comprising the valve-engaging ends extending to opposite sides of the supporting shaft, and the closed ends thereof being pivotally mounted on said supporting shaft, a portion of the closed end of each pair of said levers extending beyond said shaft, cam-engaging rollers carried by said extensions, and means for mounting said levers on their supporting shaft in such relation to each other that said rollers can be engaged by the same cam on the cam shaft, the tappet lever shaft and the cam lever shaft being positioned in a plane passing vertically through the axis of the engine cylinders.

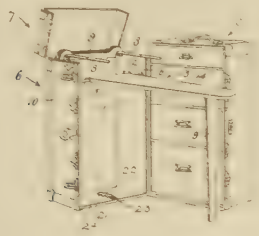
1,415,168. COIN-DEPOSIT RECEPTACLE. CHARLES GIBBS, New York, N. Y.; Anna G. Tobin being administratrix of said Charles Gibbs, deceased. Filed Aug. 13, 1919. Serial No. 317,152. 8 Claims. (Cl. 232—4.)



1. The combination with a receptacle having an opening, of disks having recessed flanges mounted in said

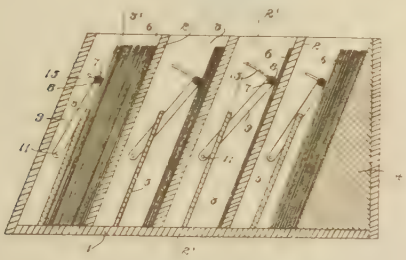
opening to rotate on axes transverse to said opening; and a tubular closure to engage said opening and having lateral projections to co-operate with the flanged disks to releasably secure the closure in the opening.

1,415,169. TRUNK APPLIANCE. TILMON I. GILBERT, Los Angeles, Calif. Filed May 9, 1921. Serial No. 468,073. 2 Claims. (Cl. 190—13.)



1. In a wardrobe trunk having a garment hanging compartment, a pair of oppositely disposed toothed rack bars secured in said compartment adjacent one end thereof, a combined garment follower and ironing board provided at one of its ends with a cross bar, the ends of said bar adapted to pivotally and detachably engage with the teeth of the rack bars, and a supporting leg hingedly secured to the free end of the combined follower and ironing board.

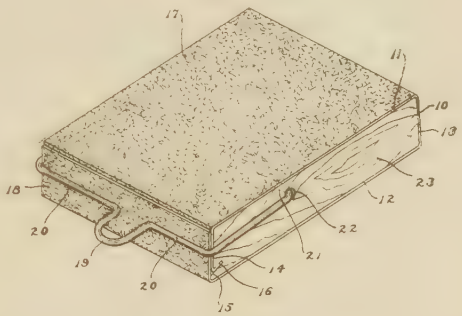
1,415,170. PAPER CABINET. HAROLD AUGUSTUS GURNEY, Winnipeg, Manitoba, Canada. Filed May 3, 1921. Serial No. 466,410. 1 Claim. (Cl. 211—8.)



A paper cabinet presenting a paper compartment in which sheets of paper are adapted to be stacked, a partition member within the compartment of less height than the latter and having the upper vertical edges thereof cut away to provide a pair of passages, a pair of arms mounted to swing in said passages and having their lower ends pivoted to the sides of the said compartment, at one side of the partition, a cross spindle carried between the upper ends of said arms and having the extremities thereof disposed in arcuate slots formed in the casing on the opposite side of the partition, whereby the roller will be prevented from moving to a position directly above the pivot point of the arms.

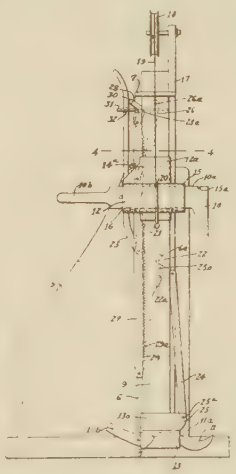
1,415,171. ABRADING DEVICE. CHARLES S. GUSTAFSON, Philadelphia, Pa. Filed July 15, 1921. Serial No. 485,068. 2 Claims. (Cl. 51—187.)

1. A device for holding a sheet of abrading material consisting of a rectangular block providing spaced parallel faces, an end at right angles thereto and an opposed transversely grooved end inclined with respect to both parallel faces, and a bail pivoted in the sides of said



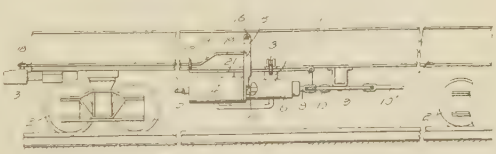
block by inturned ends, said bail having a manipulating finger and spaced portions adapted to clamp on the aforesaid inclined end.

1,415,172. SAWMILL DOG. ADOLPH L. HAASE, New London, Wis. Filed Feb. 18, 1920. Serial No. 359,708. 7 Claims. (Cl. 143—130.)



1. The combination of top and bottom saw-mill dogs, supports for said dogs, a reciprocatory ratchet bar on which the support of the top dog is slidably mounted, a pawl on said support for locking the top dog to the ratchet bar, means for moving the ratchet bar and the support of the bottom dog in opposite directions, and a pawl-tripping means actuated by the aforesaid means when operated to effect separation of the dogs.

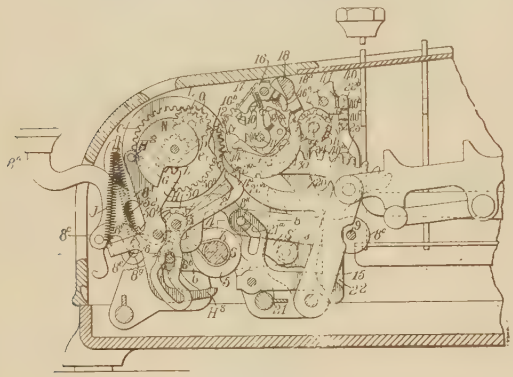
1,415,173. AUTOMATIC AIR-BRAKE-RELEASING MECHANISM. DENNIS C. HESSIAN, St. Louis, Mo. Filed Feb. 17, 1921. Serial No. 445,812. 4 Claims. (Cl. 303—68.)



1. An automatic air brake release mechanism comprising, in combination, with a draw-bar, a brake cylinder

having a piston movable therein and the piston rod, an air release pipe extending from the auxiliary air cylinder, a release valve mounted at the free end of said pipe, and means for opening the air release valve by a sudden movement of the draw-bar in either direction when the brakes are set, thereby discharging the air from the brake cylinder permitting the piston to return to its normal position releasing the brakes.

1,415,174. ADDING MACHINE. ALLEN A. HORTON, Detroit, Mich., assignor to Burroughs Adding Machine Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 30, 1915. Serial No. 48,008. 34 Claims. (Cl. 235—144.)

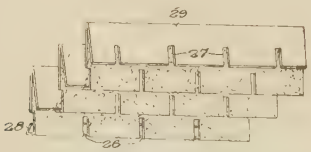


1. The combination of numeral wheels, reciprocating-key-driven actuators, one-way driving connections between the same and the respective wheels, carrying mechanism, and individual zeroizing means, a selected member of which disables the driving connections between an actuator and a wheel and resets such wheel to zero independently of other wheels by backward turning of the selected wheel.

10. The combination of numeral wheels, reciprocating key-driven actuators, one-way driving connections between the same and the respective wheels including transmitting gear wheels, pinions in mesh with said wheels, mutilated gear pinions compounded with said pinions respectively, notched discs reciprocated by the actuators and co-operating with said mutilated pinions respectively, and means for individually displacing a pinion and mutilated pinion, together with means for simultaneously displacing all of said pinions.

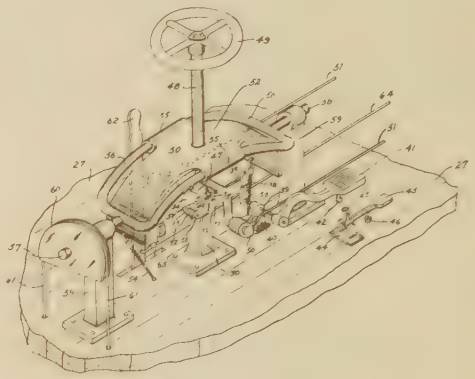
26. The combination with key-driven actuators, numeral wheels, and carrying mechanism; of means for utilizing the latter mechanism to turn the wheels backward to zero under positive actuation.

1,415,175. BUTT-END INTERLOCKING COMPOSITION SHINGLE. HENRY GOWER HOSE, Brooklyn, N. Y. Filed Dec. 23, 1919. Serial No. 346,840. 7 Claims. (Cl. 108—7.)



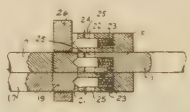
1. The combination of a plurality of self interlocking shingles respectively comprising bodies composed of composition roofing and having downward extensions forming intervening recesses and also having overfolded upper portions provided with slots registering with the slots or recesses of the downward extension of the superposed shingles.

1,415,176. AEROPLANE CONTROL. JOHN T. HUGHES, Casper, Wyo. Filed June 4, 1921. Serial No. 475,029. 5 Claims. (Cl. 244—29.)



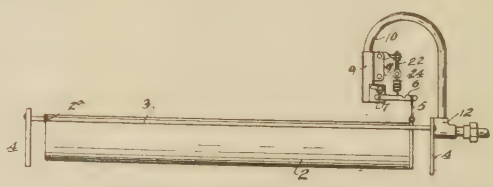
1. In an aeroplane, the combination with steering devices, a steering mast, a plate carried by the mast, a guiding frame slidably mounted on the plate, said plate, mast and frame being independently connected to said steering devices, and means for rotatably holding the frame for swinging in a transverse direction only and adapted to direct said plate and mast in their forward and rearward swinging movements.

1,415,177. LOOM NEEDLE MECHANISM. GEORGE F. HUTCHINS, Worcester, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Jan. 17, 1921. Serial No. 437,703. 9 Claims. (Cl. 139—20.)



4. In a loom, a plurality of transversely movable weft needles, a reciprocating needle rod, means to move said needles to operative and inoperative positions relative to said rod, and means to hold said needles yieldingly in either position.

1,415,178. AUTOMATIC VALVE FOR CHICKEN FOUNTAINS AND THE LIKE. JOHN IMSCHWEILER, Inglewood, Calif. Filed Mar. 4, 1920. Serial No. 363,303. 2 Claims. (Cl. 119—81.)



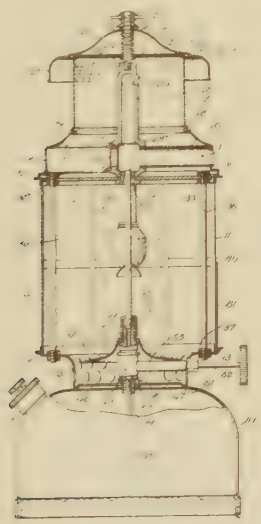
1. A water pipe extension having a downwardly extending open end with a valve seat at the open end, a valve for the valve seat, a valve casing having a split bearing portion slidingly mounted upon the pipe extension with the casing extending below the valve seat-clamping wings extending from the bearing portion, bolts for the clamping wings, a pivot extending through the valve casing, a lever having a fork fitting outside of the casing and fixed upon the ends of the pivot, a tappet fixed upon the pivot, said tappet being inside of the casing for operating the valve, a bracket extending from the

clamping wings, a temper screw and spring connecting the outer end of the lever to the bracket for adjusting the tension, and a receptacle connected to the outer end of the lever.

1,415,179. RADIOCONTROLLING DEVICE. EDWARD THOMAS JONES, New Orleans, La. Filed July 21, 1920. Serial No. 397,960½. 6 Claims. (Cl. 250—13.)

1. In a radio system the combination of a transmitting apparatus, an antenna system, a receiving apparatus, means connecting the antenna to said transmitting apparatus, means adapted to disconnect said connecting means, and establish connection between said antenna and said receiving apparatus, said first named means forming a protective gap across said receiving apparatus when said receiving apparatus is connected with said antenna.

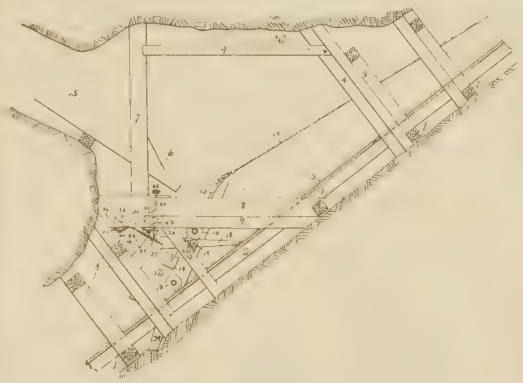
1,415,180. VAPOR BURNER. FRANK L. KOHLHASE, Chicago, Ill. Filed Sept. 22, 1920. Serial No. 411,939. 23 Claims. (Cl. 67—50.)



1. In a match lighter vapor burner, a burner structure, and a thin gauge vaporizer tube adapted to extend from a fuel supply source to said burner structure and provided between its ends with a heat conducting flame arrester which surrounds and is in contact with said tube.

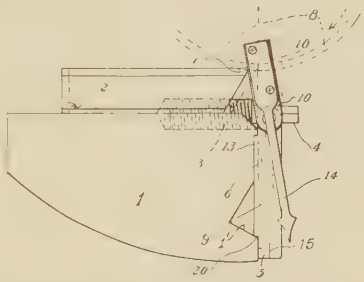
1,415,181. MINE-SKIP LOADER. CHARLES L. LAWTON, Hancock, Mich. Filed June 8, 1921. Serial No. 475,866. 7 Claims. (Cl. 214—103.)

1. In combination with the main rails of an inclined track for four wheeled skips, an operating arm adapted to swing into the path of a descending skip, a pair of auxiliary rails adapted to be positioned to extend at an angle to the main rails, and connections between the operating arm and the auxiliary rails to move them into



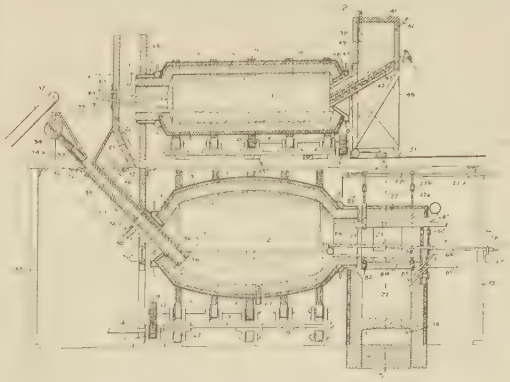
the paths of the upper wheels of the skip when the actuating arm is swung by a descending skip.

1,415,182. CHASER-ADJUSTING TOOL. THOMAS H. LLOYD, Springfield, Mass., assignor to Wyckoff & Lloyd Company, Springfield, Mass., a Corporation of Massachusetts. Filed June 7, 1921. Serial No. 475,626. 8 Claims. (Cl. 33—202.)



1. An implement for the purpose described, comprising a base-piece, a part movably connected thereto, a pointer or indicating member carried by the movable part, the base piece having a lip for positioning the base piece on a fixed reference surface, said base-piece being designed for engagement with the fixed reference surface and the movable part with a part that is to be adjusted into the same plane as the reference surface.

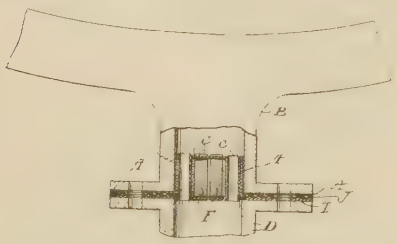
1,415,183. METALLURGICAL APPARATUS. JOEL LUND, San Francisco, Calif. Filed Aug. 8, 1918. Serial No. 248,854. 14 Claims. (Cl. 75—14.)



1. In a metallurgical apparatus, a main chamber, means for permanently maintaining a metallic bath in said

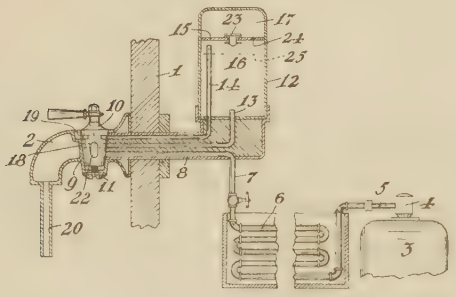
chamber, means for supplying, maintaining, and withdrawing a protective cover of molten slag on and from said bath, means for simultaneously feeding solid material and molten slag into said chamber, and means for applying heat from both above and below to the contents of the chamber.

1,415,184. DEVICE FOR PREHEATING THE EXPLOSIVE MIXTURE IN EXPLOSION ENGINES. GEORGE W. MCILRATH and JACK E. TAYLOR, Cleveland, Ohio. Filed Mar. 1, 1920. Serial No. 362,353. 3 Claims. (Cl. 219—38.)



1. The combination with the carburetor and intake passage of an explosion engine of a closure for said passage, said closure forming a hollow body formed in two portions, hollow metallic tubes connecting the ends of said closure, resistance coils encircling said tubes, insulating means between said portions of said closure, said coils passing between said insulating means.

1,415,185. METHOD AND MEANS FOR DISPENSING CARBONATED BEVERAGES. PATRICK J. MAGUIRE, Detroit, Mich. Filed June 23, 1919. Serial No. 306,204. 4 Claims. (Cl. 225—30.)

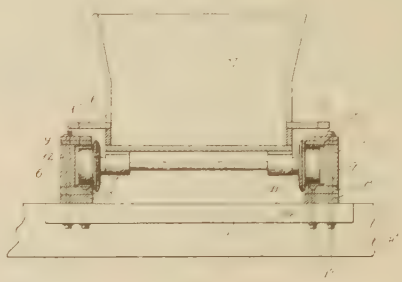


1. The method of dispensing carbonated beverages which consists in first discharging the beverage from a supply tank into a sealed receptacle under pressure equal to that of the supply tank, the sealed receptacle having an upper and a lower chamber and a passageway permitting a restricted flow of gas from the upper to the lower chamber, suddenly relieving the pressure on the lower chamber, and then discharging the liquid while under reduced pressure caused by the restricted flow of the gas from the upper chamber.

1,415,186. PROCESS OF ELIMINATING COLOR FROM CAUSTIC ALKALI. THOMAS C. MEADOWS and HERMAN D. RUHM, New York, N. Y., assignors to Eastern Potash Corporation, New York, N. Y., a Corporation of New York. Filed Jan. 25, 1919. Serial No. 273,129. 1 Claim. (Cl. 204—58.)

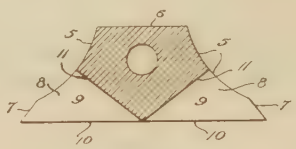
The mode herein described of eliminating color from fluid bodies of concentrated caustic alkali, said mode consisting in subjecting such bodies to the bleaching action of a current of electricity passed through the same.

1,415,187. PLEASURE-RAILWAY STRUCTURE. JOHN A. MILLER, Homewood, Ill. Filed Nov. 6, 1920. Serial No. 422,117. 3 Claims. (Cl. 104—246.)



1. In a railway structure of the class described, the combination of supporting framework, track rails of channel-shape cross section secured on said framework with their flanges extending toward each other, a vehicle having flanged wheels, said wheels extending into said channel rails to have trackage on the lower flanges thereof and said wheel flanges engaging with the inner ends of the rail flanges to take up lateral thrust of said vehicle wheels.

1,415,188. COMB. SIMON E. MONROE, Philadelphia, Pa. Filed June 26, 1920. Serial No. 391,964. 6 Claims. (Cl. 34—26.)



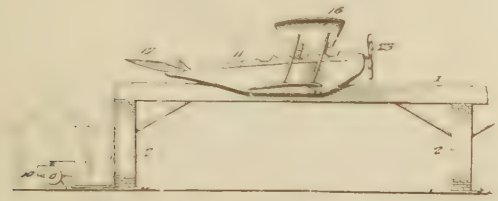
2. A comb of the character described including a head having slots extending inwardly from its opposite side faces, the top walls of said slots tapering downwardly in opposite directions toward the bottom of said head; substantially as described.

1,415,189. FILM CLIP. WALTER T. OXLEY, Fergus Falls, Minn. Filed Dec. 29, 1919. Serial No. 348,122. 3 Claims. (Cl. 24—259.)

1. A film clip including a spring and a tie-plate having a pair of longitudinally spaced slots through which the

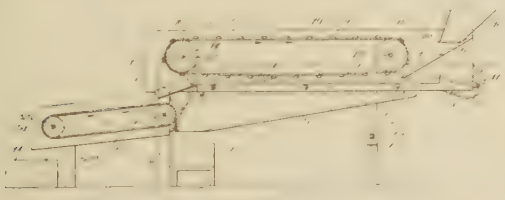
prongs of said spring project with freedom for movement toward and from each other, said prongs having notched interlocking engagement with the tie-plate, the ends of the tie-plate being extended into substantially parallel arrangement with said prongs for cooperation therewith to afford a pair of jaws adapted to receive and hold the ends of the film.

1,415,190. MONOTRACK TROLLEY PLANE. ELIAS HARRY PALMER, Charleston, S. C. Filed Feb. 14, 1921. Serial No. 444,930. 8 Claims. (Cl. 104—23.)



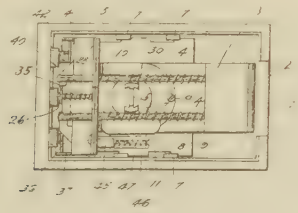
1. A mono-track trolley plane including with a track having an electric circuit arranged therewith, a car having supporting planes and adapted to travel upon and at an elevation above said track, a propeller, and an electric motor receiving current from the circuit wires of the track by which said propeller is turned.

1,415,191. MACHINE FOR PREPARING FARM PRODUCTS. FRANK M. PARKS, North Cohocton, and FRANK A. FINCH, Atlanta, N. Y., assignors to Hyatt C. Hatch, Atlanta, N. Y. Filed Mar. 22, 1919. Serial No. 284,384. 4 Claims. (Cl. 130—32.)



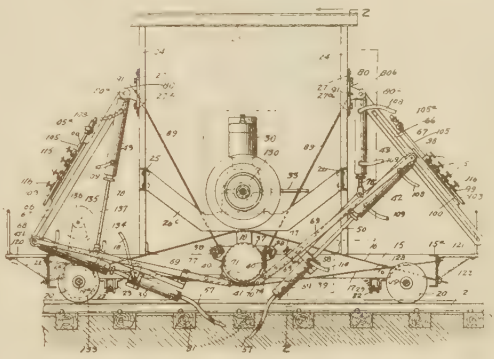
1. In a machine of the class described, a pair of spaced surfaces arranged to receive therebetween at one end the products to be treated and to maintain a pressure on the same from opposite sides, one of said surfaces being perforated for the discharge of refuse, actuating means effecting continuous movement of one of said surfaces and a relatively parallel reciprocating movement of the other to rub and clean the products and advance the same therealong, and a separator arranged to receive the products discharged from said surfaces.

1,415,192. LATCH. JOHN LOUIS POLLOCK, Freeport, Ill., assignor of one-third to Allan J. Head, Sterling, Ill., and one-third to Thomas G. Stewart, Highland Park, Mich. Filed Feb. 28, 1920. Serial No. 361,962. 6 Claims. (Cl. 70—29.)



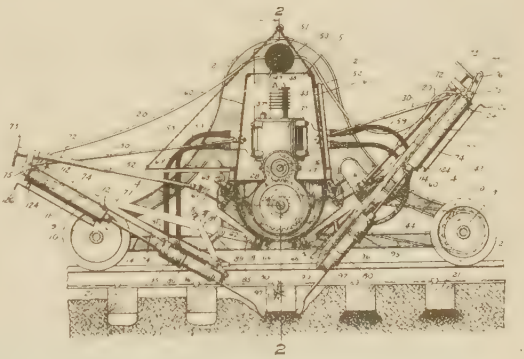
2. A device of the class described, comprising a casing; a latch slidable therein, and provided with means for holding the same normally in extended position; a knob member, rotatable in said casing, provided with a latch-operating cam, and having catch-engaging slots; a plate slidable in said casing and provided with a catch adapted for alternate engagement with said slots; a push-pin connected with said plate, and seated in an opening in the end of said casing; and a spring acting on said plate to compel the engagement of said catch and slot.

1,415,193. TIE-TAMPING MACHINE. DIGHTON A. ROBINSON, Seattle, Wash. Filed Feb. 21, 1921. Serial No. 446,871. 30 Claims. (Cl. 104—12.)



5. The combination, with a tie tamping bar and its operating gun, of a fluid pressure cylinder having a piston, a rod connected with said gun for projecting and retracting said bar and gun, and means for tilting said cylinder to oscillate said bar and gun on a horizontal axis adjacent the end of said bar.

1,415,194. TIE-TAMPING MACHINE. DIGHTON A. ROBINSON, Minneapolis, Minn. Filed Dec. 19, 1921. Serial No. 523,539. 30 Claims. (Cl. 104—12.)

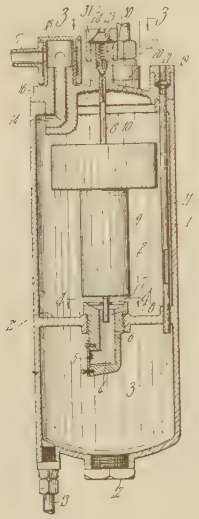


1. In a machine of the class described, the combination, with a suitable wheel-supported frame, and a transversely extending base member having its ends secured to said frame, of a transversely movable main carriage mounted upon said base member, a tool supporting carriage arranged in an inclined position, and suspended upon said main carriage, and capable of being adjusted in a vertical plane, and a tamping-tool and tool gun carried by said supporting carriage.

1,415,195. VACUUM FEEDING APPARATUS. EDWARD A. ROCKWELL, New Haven, Conn., assignor to E. A. Rockwell Company, Inc., New York, N. Y., a Corporation of New York. Filed July 16, 1918. Serial No. 245,216. 9 Claims. (Cl. 158—36.)

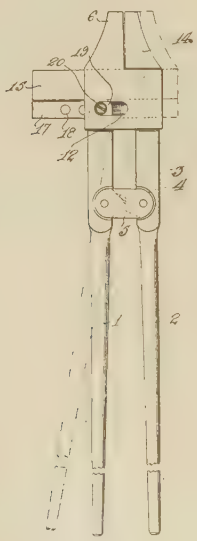
1. A vacuum feed apparatus having in combination, a tank or chamber designed to receive liquid under sub

normal pressure and discharge it under normal pressnre and pressure-controlling means for said chamber to alternately permit and then prevent subnormal pressure therein comprising a valve located in an opening from the chamber to normal pressure, a float of high buoyancy value in the liquid of the chamber, and means immovably carried by the float, and in early engagement with said



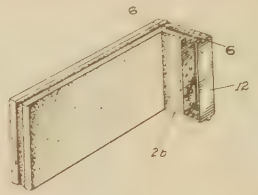
valve to directly and operatively connect the float and valve whereby the liquid in the chamber must rise to a level sufficient to immerse the float for a buoyancy value to open the valve against atmospheric pressure before said valve can open and fall to a level sufficient to immerse the float for a less buoyant value to fall with the liquid before said valve can close.

1,415,196. TONGS. MICHAEL ROSEHILL, Lobley, Alberta, Canada. Filed Mar. 11, 1921. Serial No. 451,614. 3 Claims. (Cl. 294—42.)



1. A pair of tongs comprising a pair of levers having a knife edge fulcrum, a jaw formed integral with one of the levers and having a guide opening therethrough, a movable jaw having a shank slidably engaging the said guide opening, a lever, means for connecting the lever to the movable jaw, and means for pivotally connecting the levers intermediate of their length.

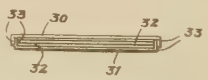
1,415,197. CONCRETE-TILE CONSTRUCTION. SCOTT M. SAMPSON, Oakdale, Calif. Filed Apr. 18, 1921. Serial No. 462,080. 4 Claims. (Cl. 72—39.)



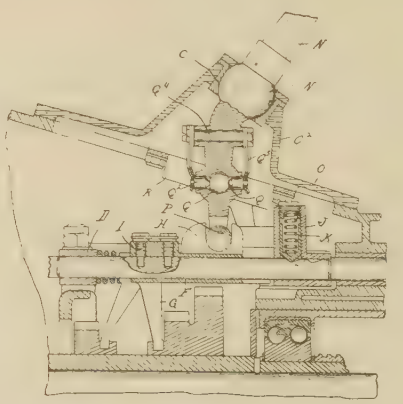
1. A building tile comprising a face member, an integral leg projecting therefrom, a metal member forming the outer end of the leg, and means whereby the metal member may be rigidly fixed to the integral leg without the use of additional members.

1,415,198. PROCESS OF BRIGHTENING AND HARDENING ELECTROLYTICALLY-TINNED ARTICLES. LOUIS SCHULTE, Chicago, Ill. Filed July 12, 1920. Serial No. 395,626. 7 Claims. (Cl. 148—15.)

1. The herein described process which comprises immersing electrolytically tinned articles in a molten chemical compound having a melting point above that of tin.

1,415,199. CHIMNEY-FLUE LINER. FRED SEIFERT, Boelus Nebr. Filed Apr. 11, 1921. Serial No. 460,409. 2 Claims. (Cl. 72—94.)

2. In a sectional nesting chimney liner, a pair of ends and a pair of sides adapted to be connected to said ends, each of said ends having a pair of inturned lateral flanges and the flanges of one end being arranged to interfit with the flanges of the other end to provide between the ends a relatively flat compartment, and said sides being adapted to fit in said compartment between the ends for nesting said chimney liner together.

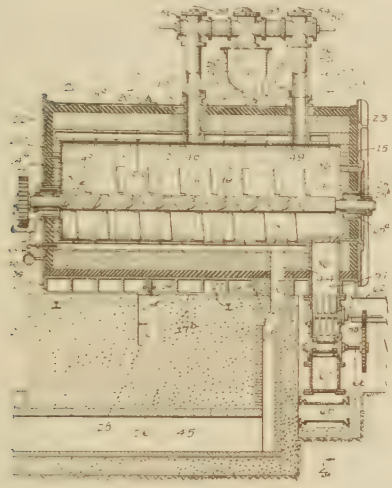
1,415,200. CONTROL MECHANISM. EARL H. SHERBONDY, Detroit, Mich., assignor to Sidney D. Waldon, Detroit, Mich. Filed Apr. 11, 1921. Serial No. 460,423. 6 Claims. (Cl. 74—39.)



1. A control mechanism comprising a universally pivoted lever, a series of more than two parallelly arranged

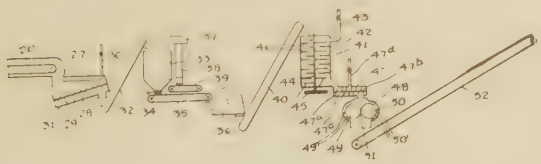
shifters with which said lever is alternately engageable by a lateral movement thereof, and means for indicating by feeding the registration of said lever with one or more of the shifters.

1,415,201. FURNACE-RETORT. CHARLES HOWARD SMITH, Short Hills, N. J., assignor to International Coal Products Corporation, Richmond, Va., a Corporation of Virginia. Filed Feb. 18, 1918. Serial No. 217,764. 39 Claims. (Cl. 202—9.)



10. A retort at least partially defined by hollow high-refractory brick arranged end on end so as to provide combustion flues about the retort, a layer of heat storing brick arranged about said hollow tile, a layer of heat insulating material about the heat storing brick, and a metallic shell or envelope about the heat insulating material.

1,415,202. PLANT FOR AND METHOD OF TREATING COAL. CHARLES HOWARD SMITH, Short Hills, N. J., assignor to International Coal Products Corporation, Richmond, Va., a Corporation of Virginia. Filed Apr. 3, 1918. Serial No. 226,407. 3 Claims. (Cl. 202—9.)



1. A process of making briquets, consisting in agitating the coal and conveying it through a retort, by means of rotary paddles which overlap and rotate in opposite directions, under progressive heating of the retort at temperatures of about 825 degrees F. to 1200 degrees F., until obtaining a partially distilled residue, having between five per cent (5%) to fourteen per cent (14%) hydrocarbon volatile matter therein and in which cells have been developed due to said treatment, in crushing the residue preferably after a cooling wherein water is applied directly to the residue and mixing and fluxing the crushed residue together with hydrocarbon binding material such as pitch in a fluxer provided with a mixing device and a steam supply in forming briquets of the fluxed mixture, which fluxed mixture is preferably made so as to contain from eleven per cent (11%) to seventeen per cent (17%) volatile matter, in heating said briquets in an inclined retort at temperatures to approximately 1850 degrees F. until they are carbonized, and finally in causing the discharge of the carbonized briquets from the retort and quenching the hot discharged carbonized briquets.

1,415,203. PROCESS FOR RECOVERING POTASH. EARL P. STEVENSON, Cambridge, Mass., assignor, by mesne assignments, to General Bond and Share Company, Boston, Mass., a Corporation of Delaware. Filed Aug. 7, 1919. Serial No. 315,875. 11 Claims. (Cl. 23—22.)

1. The process of extracting potash from Searles Lake brine which consists in chilling the brine sufficiently to precipitate a substantial part of the salts contained therein excepting sodium chloride and potassium chloride, and then separating the potassium chloride from the sodium chloride.

1,415,204. PROCESS OF EXTRACTING POTASH FROM SALINE DEPOSITS AND BRINES. EARL P. STEVENSON, Cambridge, Mass., assignor, by mesne assignments, to General Bond and Share Company, Boston, Mass., a Corporation of Delaware. Filed Aug. 7, 1919. Serial No. 315,876. 10 Claims. (Cl. 23—22.)

1. The process of extracting potash from Searles Lake brine which consists in chilling the brine to eliminate a substantial percentage of the waste salts contained therein, evaporating the remaining brine to dryness, mixing the dried salts so retained with a precipitant for waste constituents of the dried salts, and then extracting said mixture for its potash content.

1,415,205. PROCESS OF EXTRACTING BORAX FROM SALINE DEPOSITS AND BRINES. EARL P. STEVENSON, Cambridge, Mass., assignor, by mesne assignments, to General Bond and Share Company, Boston, Mass., a Corporation of Delaware. Filed Aug. 7, 1919. Serial No. 315,877. 17 Claims. (Cl. 23—22.)

1. The process of extracting borax from Searles Lake brine which consists in reducing the temperature of the brine to a point sufficiently below zero centigrade to crystallize out a substantial percentage of the borax contained therein together with other salts, separating the salts so crystallized from the remaining brine, and then treating the mixture of salts so obtained to separate its borax content.

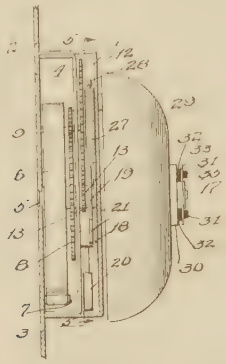
1,415,206. PROCESS OF RECOVERING VALUABLE CONSTITUENTS FROM ALKALINE BRINES AND DEPOSITS. EARL P. STEVENSON, Cambridge, Mass., assignor, by mesne assignments, to General Bond and Share Company, Boston, Mass., a Corporation of Delaware. Filed Oct. 8, 1919. Serial No. 329,381. 8 Claims. (Cl. 23—22.)

1. The process of recovering valuable constituents from alkaline brines containing the elements of sodium carbonate which consists in treating the brine with carbon dioxide to convert a substantial percentage of the sodium carbonate in the brine into sodium bicarbonate, filtering off the sodium bicarbonate precipitate, treating the sodium bicarbonate so obtained to produce sodium carbonate and carbon dioxide, and treating the filtrate with a material that reacts with the constituents of the filtrate to form a substance from which an additional supply of carbon dioxide can be obtained for use in treating a fresh quantity of brine.

1,415,207. AUTOMATIC ALARM. JULIUS SWANBERG, Chicago, Ill., assignor to Fabart Instrument Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 13, 1919. Serial No. 270,798. 3 Claims. (Cl. 116—106.)

3. An alarm, a spring driven shaft for actuating said alarm, a disk mounted on said shaft near the end thereof to rotate therewith, the portion of the shaft between

said disk and the main body of the shaft being of smaller cross-section than the main body of said shaft, a plate, means for supporting said plate, free from said shaft, a

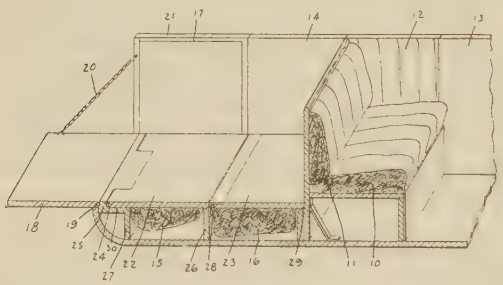


fusible means securing said disk to said plate, and thermal insulation between said plate and said supporting means.

1,415,208. COMPOSITION FOR SHOE DRESSING. PETER THORESON, Baldi, Wash. Filed May 26, 1921. Serial No. 472,868. 2 Claims. (Cl. 134—8.)

1. A composition adapted for use as a leather dressing and preservative consisting of a mixture of substantially equal parts, by measurement, of beef tallow, pure pine tar and rubber, to which mixture is added one part of neat's foot oil to eight parts of mixture.

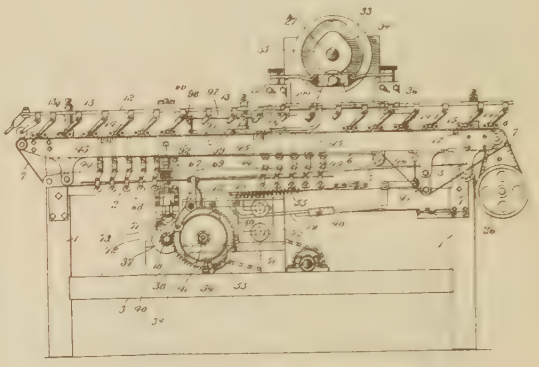
1,415,209. CONVERTIBLE VEHICLE BODY. THOMAS P. TROKE, Indianapolis, Ind. Filed Jan. 3, 1921. Serial No. 434,582. 3 Claims. (Cl. 296—63.)



1. A convertible vehicle body including a seat panel, a back rest panel of substantially the same size, a pair of transverse supporting standards spaced apart substantially the width of the panels, said seat panel being pivotally supported at its forward edge upon one of said supporting standards and movable forwardly from the seat forming position into an inverted horizontal position and the back rest panel being pivotally supported at its lower edge upon the rear supporting standard and movable forwardly into horizontal position to rest upon said forward supporting standard when the seat panel is moved forwardly, said panels when in the forward position forming a continuous flat surface, and a third supporting standard engageable by and supporting said seat forming panel in its forward position.

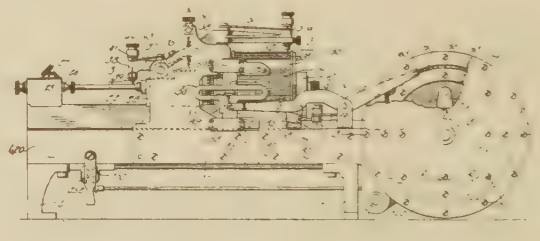
1,415,210. CARD CUTTING AND STACKING MACHINE. ISAAC WAGEMAKER, Grand Rapids, Mich. Filed Jan. 2, 1918. Serial No. 210,056. 3 Claims. (Cl. 101—237.)

1. In a machine of the character described, a horizontal table, an endless belt adapted to carry cards or like articles running lengthwise of and around the table, a vertically mounted reciprocable printing ram located back of the belt, a head pivotally depending from the lower end of the ram, a slide mounted for horizontal sliding movement back of said head, links connecting the slide and head, springs connected to the slide normally holding it in rear position with the head located directly below the ram, a drive shaft, means interposed between said



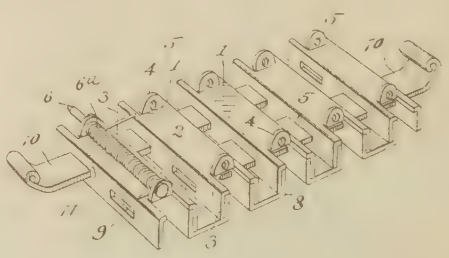
shaft and the head at the lower end of the ram for elevating said ram once with each revolution of the shaft, and means controlled by the passage of cards to the ram for controlling the position of said head on the ram substantially as described.

1,415,211. CHASING MACHINE. JOHN C. WAHL, Chicago, Ill., assignor to The Wahl Company, Wilmington, Del., a Corporation of Delaware. Filed Nov. 22, 1920. Serial No. 425,903. 14 Claims. (Cl. 90—24.3.)



8. A chasing machine comprising a work-holding device, a chasing tool, means for successively rotating said work-holding device and said tool relatively to each other about the axis of said work-holding device and through predetermined arcs, means for oscillating said work-holding device and said tool relatively to each other, and means for rendering each of the last two mentioned means inoperative when the other is in operation.

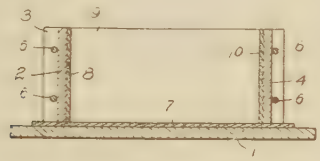
1,415,212. LEAF-HINGE DEVICE FOR ACCOUNT REGISTERS. ARTHUR S. WELDY, Cleveland, Ohio. Filed Feb. 15, 1918. Serial No. 217,301. 2 Claims. (Cl. 129—34.)



1. In an apparatus of the character described, a plurality of leaf supporting links, each of said links being

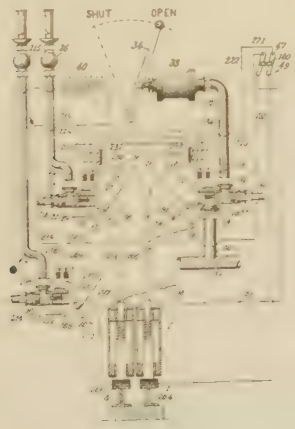
provided with upturned ears adapted to pivotally support a leaf, said links being provided with flanges, connecting links faced in an opposite direction with respect to the leaf supporting links, said connecting links being provided with flanges which overlap flanges on adjacent links of the leaf supporting links, aligned openings formed in the flanged portions of the said links, and a rod passing through the said aligned openings whereby the links may slide upon the rod to assume an extended or compacted position, and means for limiting the movement of the rod with respect to the links.

1,415,213. MOLD FOR CASTING CLAY ARTICLES. ROBERT W. WHITE, Elwood, Ind., assignor to Pittsburgh Plate Glass Company, a Corporation of Pennsylvania. Filed Aug. 24, 1920. Serial No. 405,709. 3 Claims. (Cl. 25—129.)



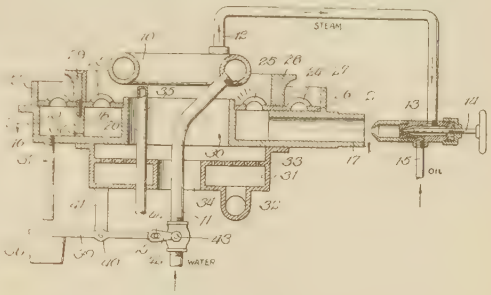
1. In combination in a mold for casting clay articles, walls comprising plates of relatively strong material having a facing of sheets of commercial plaster board.

1,415,214. RAILWAY SAFE-RUNNING DEVICE. ARTHUR REGINALD ANGUS, Minehead, England. Filed Mar. 20, 1913. Serial No. 755,686. 25 Claims. (Cl. 246—71.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



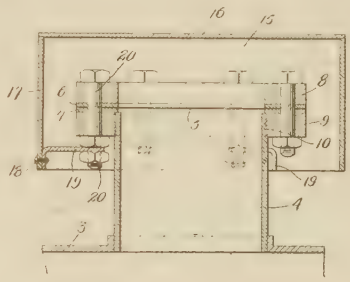
1. Train protecting apparatus comprising danger-indicating apparatus and train-stopping apparatus located on a train, non-electrical means adapted to restrain the operation of each of said apparatus, track contacts of two different natures located along a track, a single contacting device on said train adapted to come into contact with said track contacts and thereby to cause said non-electrical means to lose its restraint on said danger-indicating apparatus on contact with a track contact of one nature and to lose its restraint on said train-stopping apparatus on contact with a track contact of the other nature, and substitutional restraining means adapted to restrain the operation of said danger indicating apparatus and of said train-stopping apparatus.

1,415,215. VAPOR BURNER. ALFRED D. ANTOINE, Chicago, and ALBERT E. GEBERT, Wilmette, Ill., assignors to Advance Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 28, 1921. Serial No. 456,287. 18 Claims. (Cl. 158—56.)



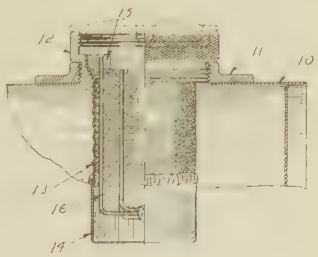
1. A device of the character described embodying a steam generating chamber, means for supplying water thereto, a burner chamber disposed beneath the generating chamber and operating to heat the latter, an injector nozzle, means connecting the nozzle with the said generating chamber, means for connecting the nozzle with an oil supply, means whereby vapor from said nozzle will discharge into the said burner chamber, and a liquid discharge outlet leading from the burner chamber.

1,415,216. SAFETY VALVE OR BLOW-OFF. ROBERT V. BINGAY, Pittsburgh, Pa., assignor to Pittsburgh Transformer Company, a Corporation of Pennsylvania. Filed Oct. 17, 1919. Serial No. 331,323. 1 Claim. (Cl. 220—89.)



The combination with a container having an outlet, of a fragile diaphragm closing said outlet, and a protective cap member releasably held in place and adapted to automatically open and permit unobstructed outflow through said outlet upon rupture of said diaphragm.

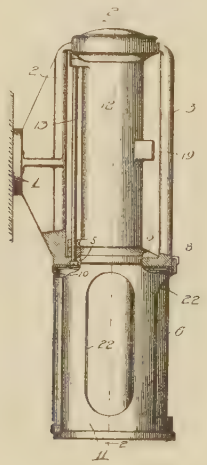
1,415,217. FUEL STRAINER FOR TANKS. WILLIAM E. BROCK, Indianapolis, Ind. Filed Sept. 15, 1919. Serial No. 323,986. 2 Claims. (Cl. 210—169.)



1. A strainer for fluid containers including a tubular straining and separating member, a depending cup secured to said tubular member for closing the same, means for supporting said straining member within said con-

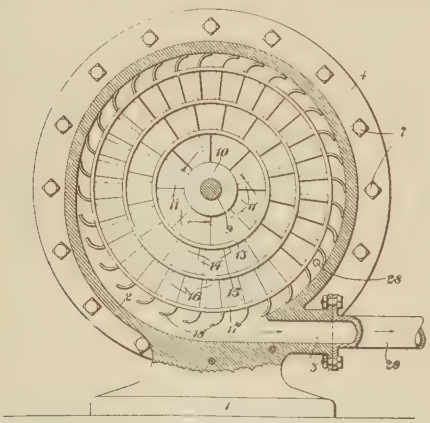
tainer, a plurality of metal rods forming a skeleton cylinder suspended from said means and extending into said straining member, said wire rods being bent inwardly at their outer ends and joined together to form a rigid skeleton bottom for preventing any downward thrust of a discharge nozzle from engaging and damaging the straining member and said cup, and for dissipating the pressure of the fluid supplied by the nozzle and reflected by the cup.

1,415,218. DISPENSER. EDMUND BRUDER, Chicago, Ill., assignor to Harold I. Koppelman, Wilmette, Ill. Filed Feb. 14, 1918. Serial No. 217,054. 15 Claims. (Cl. 221—79.)



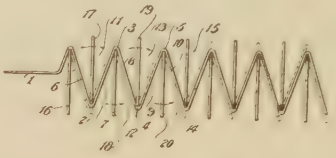
1. A dispenser having, in combination, a container provided with an outlet, a plunger for forcing the contents of the can through the outlet, an externally-threaded member connected to the plunger, an internally-threaded sleeve stationary relative to the container and containing said member, the plunger extending axially of the sleeve, a pawl carrier rotatably mounted in said member, a pawl on the pawl carrier, said member having ratchet teeth which are engaged by the pawl, a shaft extending slidably through the pawl carrier and axially of the plunger, said pawl carrier being rotatable with the shaft, and means for turning the shaft, said sleeve being formed of two pivoted sections adapted to be swung out of engagement with said member.

1,415,219. TURBINE. JOHN O. CARREY, St. Louis, Mo., assignor to Carrey Rotary Engine Company, St. Louis, Mo., a Corporation of Missouri. Filed Aug. 19, 1919. Serial No. 318,577. 10 Claims. (Cl. 253—74.)



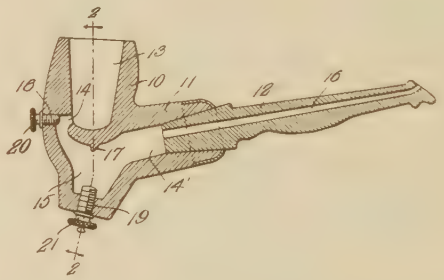
1. In a turbine, the combination of a stator case, a power shaft journaled in the case, and a rotor mounted on said power shaft having pockets therein, open at the sides, with an injector comprising an inlet nozzle arranged to inject a jet of steam into the pockets in the rotor, and an aspirator nozzle in connection with said first-named nozzle in communication with the pockets in the rotor for producing a suction in the pockets.

1,415,220. ELECTRICAL CONDENSER. HENRY F. CAUSEBROOK, Greenfield, Mass. Filed June 18, 1921. Serial No. 478,553. 6 Claims. (Cl. 250—41.)



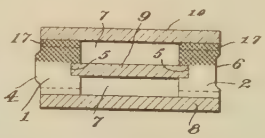
6. A folded condenser comprising a single strip of dielectric material to form pocket-like receptacles and individual pieces of electric conducting material in said receptacles and projecting beyond the opposite sides of the finished article.

1,415,221. PIPE. SAMUEL T. COOK, London, Ontario, Canada. Filed May 3, 1920. Serial No. 378,595. 2 Claims. (Cl. 131—12.)



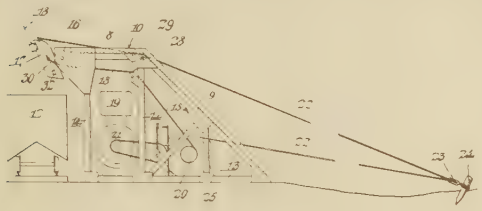
1. A pipe comprising a bowl having a neck extending therefrom, the bowl being provided with a tobacco pocket and with a smoke passage extending into the neck, the inner end of the smoke-passage communicating with the bottom portion of the tobacco pocket and the smoke passage being provided intermediate its length with an offset portion positioned beneath the tobacco pocket and constituting a nicotine well, removable plugs one fitting into the openings formed in the bottom of the nicotine well, and another in the smoke passage at a point in alignment with the connection of the smoke passage with the tobacco pocket, and an abutment rib extending transversely of the smoke passage above the nicotine well.

1,415,222. HOLLOW CONCRETE BLOCK. ANTON MARIUS CRAMER, Arendal, Norway. Filed June 20, 1919. Serial No. 305,528. 2 Claims. (Cl. 72—41.)



1. A hollow concrete building block, comprising concrete end walls having tapering, dovetail grooves in their opposite side faces; a coating of moisture-insulating material extending completely over the surface of each groove, and spaced concrete side walls having their inner faces provided, adjacent the ends thereof, with projections conformably fitting in said coated grooves to rigidly connect said side and end walls together.

1,415,223. EXCAVATING AND LOADING DEVICE. GEORGE CORLISS CROSSLEY, Trenton, N. J. Filed Oct. 13, 1920. Serial No. 416,632. 9 Claims. (Cl. 214—105.)

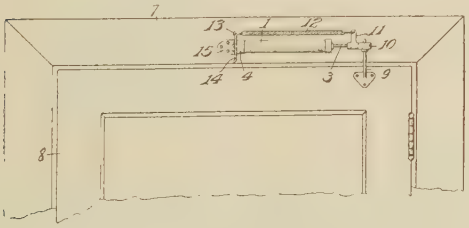


1. In an excavating and loading device, an inclined plane, a platform at the upper end of said plane, a cable passing over said platform and said plane, a horizontally disposed roller on said platform to support said cable, spaced vertically disposed rollers adjacent to said horizontal roller to limit the lateral movement of the cable, a conveyor attached to said cable, and means for drawing said cable.

1,415,224. DISPLAY STAND. WILLIAM C. DICKMEYER, Fort Wayne, Ind. Filed Nov. 9, 1921. Serial No. 514,056. 6 Claims. (Cl. 211—24.)

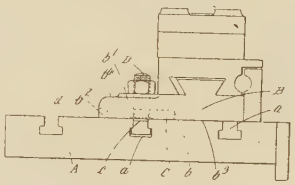
4. In a display stand cut or stamped from sheet material and bent into shape, a bottom, sides extending from said bottom and having notches therein, and a hinged front adapted for reciprocate movement upon said sides.

1,415,225. DOOR CHECK. WILLIAM G. DISCHER, Wheeling, W. Va., assignor of one-half to F. W. Perrin, Sr. Filed Jan. 5, 1922. Serial No. 527,227. 3 Claims. (Cl. 16—70.)



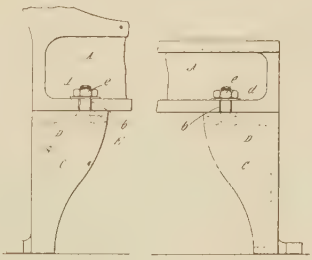
2. A door check comprising a cylinder, a piston reciprocable within said cylinder, a rod attached to said piston and movable through the rear end of said cylinder, a bracket carried by the door, an eye-piece carried by said piston rod and having a vertical arm, said eye-piece being reversible for mounting upon said bracket with the arm thereof occupying either upstanding or depending position, a hinge of leaf type having one leaf thereof rigidly mounted on the front end of the cylinder at right angles to the axis of the latter and the opposite leaf mounted upon the door casing over the door, opposite vertically extending lugs carried on the front end of the cylinder and projecting above and below the level of the latter, and a retractile coil spring connecting one of said lugs to the arm of the eye-piece and disposed parallel to said cylinder.

1,415,226. LATHE SLIDE. ARTHUR DRUMMOND, Ryde's Hill, near Guildford, England. Filed July 27, 1921. Serial No. 487,978. 1 Claim. (Cl. 82—24.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



Securing means for the slides of lathes, in which the lower side of the upper slide is formed with a circular recess within which lies a disc provided at its under side with a cross rib adapted to fit in one of the grooves or slots of the lower slide, the upper slide being fixed in an angularly adjustable position around the said disc, without gripping the disc, by a central bolt engaging the slot, for the purpose specified.

1,415,227. LATHE BODY. ARTHUR DRUMMOND, Ryde's Hill, near Guildford, England. Filed July 27, 1921. Serial No. 487,980. 1 Claim. (Cl. 82—32.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

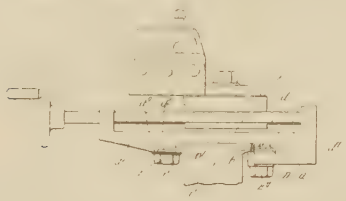


Means for connecting the legs or standards of lathes to the bed, comprising a horizontal web on the lower side of the bed and a corresponding web on the upper end of each leg or standard, the aforesaid webs having slots adapted to be superposed and when superposed to cross each other, and securing bolts passing through the said slots at their crossing points for connecting the aforesaid lathe members together.

1,415,228. LATHE. ARTHUR DRUMMOND, Ryde's Hill, near Guildford, England. Filed July 27, 1921. Serial No. 487,981. 4 Claims. (Cl. 82—2.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

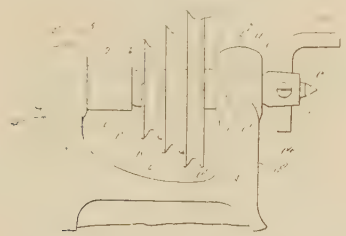
1. In means for fitting the sliding members of lathes on the bed or other guide, a guide having a pair of substantially parallel guiding surfaces at opposite sides,

a guiding surface on one side of the said sliding member adapted to slide in close contact with one only of the said guiding surfaces, and resilient pressure ap-



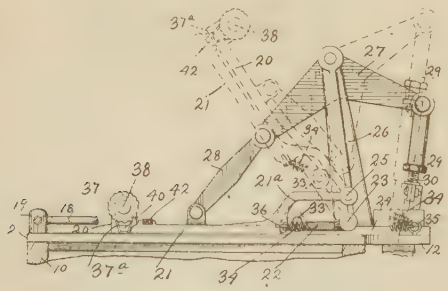
plying means situated between the sliding member and the second guide surface between which the sliding member is a clearance, for the purpose specified.

1,415,229. MANDREL AND ASSOCIATED MEMBERS OF LATHES. ARTHUR DRUMMOND, Ryde's Hill, near Guildford, England. Filed July 27, 1921. Serial No. 487,983. 5 Claims. (Cl. 82—30.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



1. A lathe comprising a stepped pulley, a mandrel for said pulley provided with a positive bearing cone at each end and a taper along its length, and negatively coned seating members adapted to receive the positive bearing cones of said mandrel.

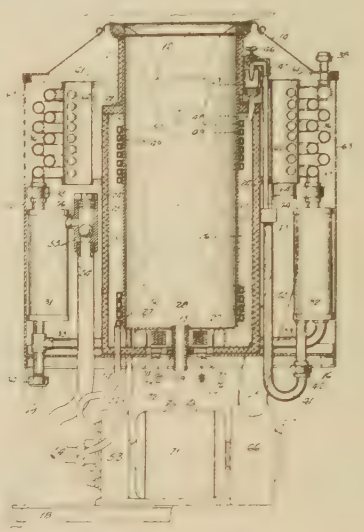
1,415,230. PHOTOGRAPHIC PRINTING AND NUMBERING MACHINE. GLEN M. DYE, Minneapolis, Minn., assignor to Photographic Appliances Corporation, Minneapolis, Minn., a Corporation of Minnesota. Filed July 22, 1918. Serial No. 246,117. 10 Claims. (Cl. 95—73.)



10. A photo printing machine having in combination, means for supporting a negative, means for holding a print on said negative, and supplemental means for holding said print on said negative, both of said holding means swinging about offset parallel axes and having closely adjacent sides extending normal to said axes.

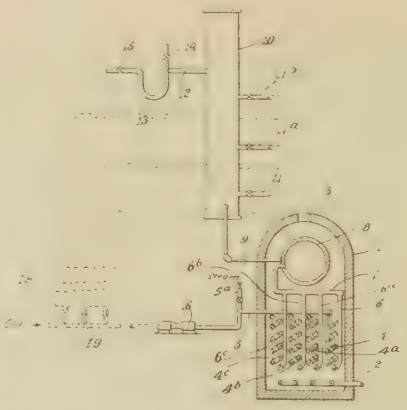
1,415,231. LIQUID-COOLING APPARATUS. HARRY WING DYER, East Orange, N. J. Filed Jan. 20, 1921. Serial No. 438,797. 10 Claims. (Cl. 62—115.)

1. In a liquid cooling apparatus the combination of a stand having means for detachably supporting an inverted vessel containing liquid to be chilled, a chamber communicating with said vessel and a refrigerating ap-



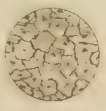
paratus supported on said stand comprising coils surrounding said chamber, and mechanical means for maintaining said coils at a low temperature.

1,415,232. PROCESS OF CRACKING OILS UNDER PRESSURE. CARLETON ELLIS, Montclair, N. J., assignor, by mesne assignments, to Standard Oil Company, a Corporation of New Jersey. Original application filed Oct. 4, 1913, Serial No. 793,377. Divided and this application filed Nov. 26, 1920. Serial No. 426,501. 10 Claims. (Cl. 196—25.)



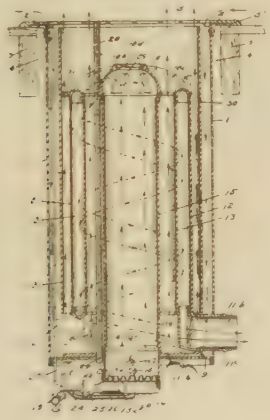
1. The process of making a gasolene substitute which comprises passing a kerosene or heavier oil through a heated zone wherein the oil is brought to a decomposing temperature in a single passage, and passing the products at a slower rate through an enlarged passageway without increasing their temperature, and without permitting the temperature to drop below a decomposing temperature and maintaining superatmospheric pressure upon the oil in its passage through the heated zone and the enlarged passageway.

1,415,233. COMPOSITION OF MATTER FOR PLATINUM SUBSTITUTE IN CHEMICAL APPARATUS AND OTHER USES AND METHOD OF MAKING SAME. FRANK A. FAHRENWALD, Cleveland, Ohio, assignor to The Rhotanium Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 6, 1916. Serial No. 129,911. 10 Claims. (Cl. 75—1.)



1. An article of chemical apparatus consisting of an alloy of a noble metal in the periodic group containing gold combined with not less than about twenty atomic per cent of palladium in homogeneous solid solution.

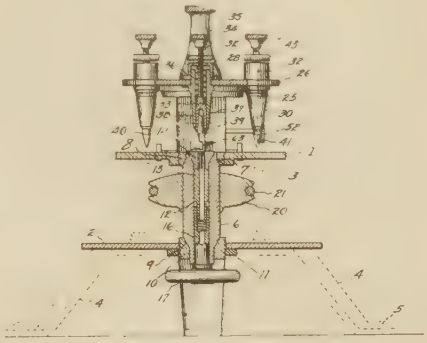
1,415,234. FLOOR FURNACE. AUGUST GAMBLE, Pasadena, Calif., assignor to American Gas Appliance Company, Los Angeles, Calif., a Corporation of California. Filed Aug. 11, 1921. Serial No. 491,616. 6 Claims. (Cl. 126—116.)



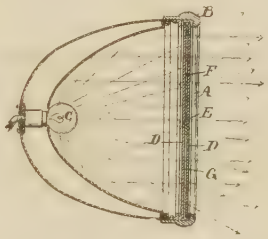
1. In a gas furnace, a burner, a superimposed central tubular combustion element upwardly through which the products of combustion pass, means providing an annular heat radiating chamber around said central tubular element, and spaced therefrom, means connecting the top of the central tubular element with the annular radiating chamber, said means being adapted to direct the heat and products of combustion spirally through said annular chamber, means for discharging said burnt products of combustion out of said furnace, and means for the passing of air to be heated through said furnace.

1,415,235. JEWEL-SETTING MACHINE. LEMUEL E. GARNETT, Tacoma, Wash. Filed May 18, 1920. Serial No. 382,367. 6 Claims. (Cl. 29—10.)

1. A jewel setting device of the character described comprising a supporting base, a lathe spindle operatively mounted in the said base, a work holding chuck applicable to the said spindle, a bracket fixed to and extending from the base, a turret adjusting arm mounted pivotally upon the bracket, a turret supported by the bracket upon said arm, a plurality of tools of different character operatively mounted on the said turret and adapted to be individually positioned by revolving the latter in working relation with pieces that may be held in the lathe chuck, means for securing the turret relative to the arm to retain a selected tool in working position and means for adjusting the arm to effect a finer adjustment of the tool toward or from the work being done.

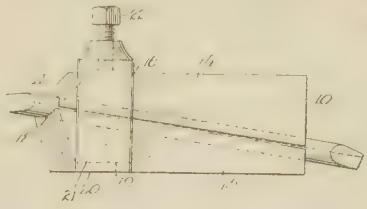


1,415,236. HEADLIGHT FOR VEHICLES. RALPH A. GIBBS, Philadelphia, Pa., assignor to Louis J. Kolb, trading as Safetee Glass Company, Philadelphia, Pa. Filed May 22, 1920. Serial No. 383,337. 1 Claim. (Cl. 240—48.4.)



A head light lens through which the light is caused to pass, comprising two sheets of glass having smooth adjacent surfaces and respectively secured firmly upon opposite sides of a sheet of pyroxylin, said sheet of pyroxylin having approximately one-half of its mass of transparent character and the other half of translucent character, and in which the juncture of the transparent and translucent portions forms a substantially straight line adapted to be arranged horizontally in use.

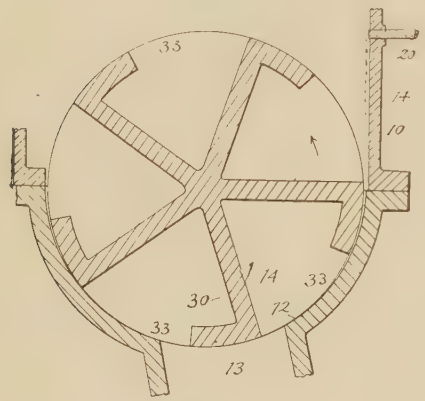
1,415,237. CUTTING TOOL AND HOLDER. ALPHONSE GUTTLY, Wisconsin Rapids, Wis. Filed Oct. 22, 1921. Serial No. 509,547. 8 Claims. (Cl. 29—96.)



1. In a device of the class described, a substantially round cutting tool provided with a straight groove ex-

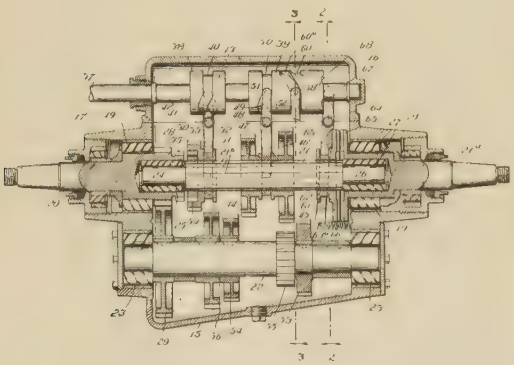
tending longitudinally thereof, and a holder fitting about said tool and having a projection fitting within said groove.

1,415,238. METHOD OF AND APPARATUS FOR PREVENTING THE ACCUMULATION OF STICKY CONDENSED PRODUCTS OF A GAS PRODUCER UPON THE RELATIVELY MOVABLE ENGAGING SURFACES OF THE FUEL-FEEDING MECHANISM APPLIED TO A GAS PRODUCER. CURTIS C. HOFFMAN, Chagrin Falls, and JOHN MCCASLIN, Cleveland, Ohio, assignors to The Wellman-Seaver-Morgan Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 11, 1919. Serial No. 329,931. 9 Claims. (Cl. 48—86.)



1. The method of preventing the accumulation of sticky condensed product of a gas producer upon the relatively movable engaging surfaces of the fuel feeding mechanism of said gas producer, which consists in the delivery onto said surfaces while the apparatus is in operation of a substance which prevents the accumulation on said surfaces of the sticky condensed vaporous products of the gas producer.

1,415,239. TRANSMISSION MECHANISM. IRVIN HUPP, Chicago, Ill. Filed Mar. 15, 1920. Serial No. 365,850. 24 Claims. (Cl. 74—58.)

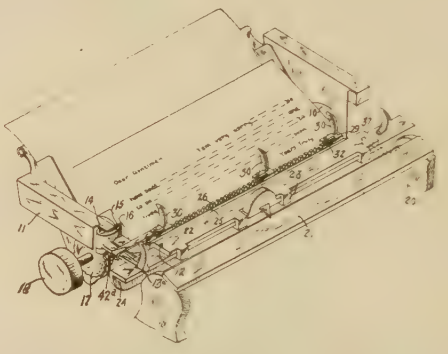


8. In a transmission mechanism, the combination of a transmission shaft and a driven shaft, a clutch interposed between said shafts, a counter-shaft, co-operating transmission gears mounted upon the transmission shaft and upon the counter-shaft, respectively, and selectively engageable with each other for different speeds, means for shifting certain of the transmission gears, and means for automatically opening the clutch as an incident to the shifting of said gears.

1,415,240. RESISTANCE UNIT. LEE P. HYNES, Albany, N. Y., assignor to Consolidated Car-Heating Company, Albany, N. Y., a Corporation of West Virginia. Filed July 13, 1921. Serial No. 484,405. 8 Claims. (Cl. 219—63.)

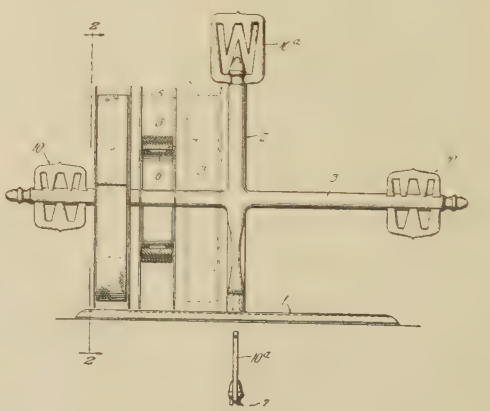
4. A resistance-unit comprising a refractory core, a resistance wire thereon and metallic end caps on said core provided with projecting lips to which the respective ends of the resistance wire are connected.

1,415,241. TYPEWRITING MACHINE. ARTHUR A. JOHNSON, New York, N. Y., assignor, by mesne assignments, to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Aug. 15, 1918. Serial No. 250,090. 49 Claims. (Cl. 197—177.)



45. In a typewriting machine, in combination, a traveling carriage, a platen on said carriage, line-space mechanism for the platen, a plurality of manually-operable members for operating the line-space mechanism located laterally in spaced relation along the front of the carriage, said members being independently operable, means to enable any of said manually-operable members to operate said line-space mechanism, and margin-determining means controlled by the line-spacing members.

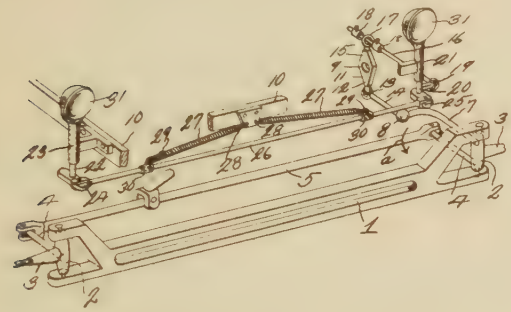
1,415,242. DISPLAY STAND FOR RIBBONS AND THE LIKE. JAMES G. JOHNSTON, Jr., Chicago, Ill., assignor to Warren Featherbone Company, Three Oaks, Mich., a Corporation of Michigan. Filed Apr. 8, 1921. Serial No. 459,578. 7 Claims. (Cl. 211—18.)



1. In a device of the character described, the combination of a standard provided with a spindle having a key

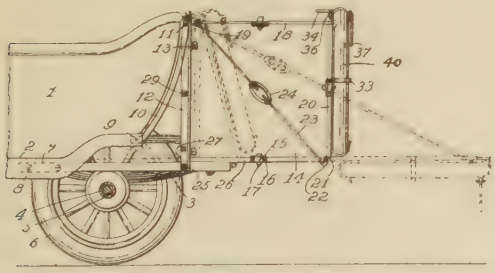
at the free end thereof, and a spool adapted to be supported upon said spindle and provided with a centrally located slot therethrough adapted to engage said key in the mounting of said spool on said spindle.

1,415,243. DIRIGIBLE HEADLIGHT. JOHN FRANKLIN KELLER, Pearl, Ill., assignor to Chris F. Andersen and J. R. Mitchell, Jacksonville, Ill. Filed Aug. 17, 1921. Serial No. 492,971. 2 Claims. (Cl. 240—62.)



1. A dirigible headlight mechanism for automobiles comprising a vertically pivoted lamp bracket, the lower end of said bracket having a transversely disposed outwardly extending arm, a lever pivoted to the side of the automobile, said lever being pivoted at a central point thereby forming an upwardly and downwardly extending arm, an eye carried by the end of an upwardly extending arm, a connecting rod extending through said eye and provided with stops located on each side of the eye, the forward end of said connecting rod being universally connected to the outwardly extending arm the pivotal points of said connecting rod being universal ones, said rearwardly and inwardly extending arm carried by the axle spindle of the automobile, a connecting link universally connected to and extending rearwardly from said rearwardly and inwardly extending arm, the rear end of said last named connecting link being connected to the downwardly extending arm of the pivoted lever by means of a universal joint.

1,415,244. SLIDING KNOCKDOWN FREIGHT CARRIER. GEORGE COLVIN KENNEDY, Waterloo, Iowa. Filed Jan. 25, 1918. Serial No. 213,695. Renewed Sept. 26, 1921. Serial No. 503,379. 8 Claims. (Cl. 224—29.)



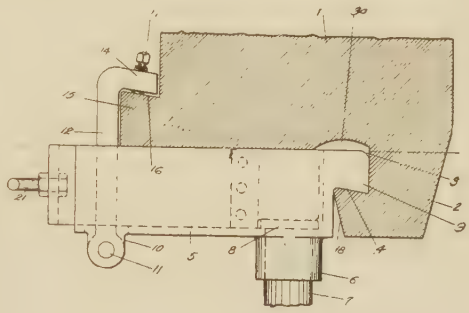
7. The combination with a vehicle having a rear axle and carrying-wheels mounted thereon, of a platform movable longitudinally past the rear axle to and from a position of extension rearwardly from the vehicle, and supporting-means upon said rear axle upon which said platform is slidably mounted, supported, and releasably secured.

1,415,245. PICTURE PUZZLE DEVICE. JAMES J. KENNEDY, New York, N. Y. Filed Apr. 26, 1920. Serial No. 376,815. 8 Claims. (Cl. 46—4.)

1. A pictorial puzzle device, comprising a picture having as part of its subject matter a determined object delineated so that its configuration is concealed, and a separate screen element adapted to be disposed upon the

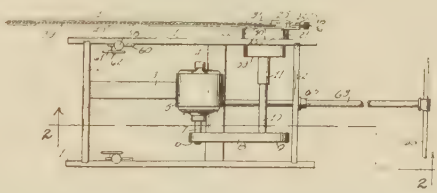
picture so that the object will be exposed to view, while the other portions of the picture are hidden from observation.

1,415,246. METAL-PUNCHING MACHINE. GEORGE P. KLINE, Moline, Ill., assignor to Williams, White & Company, Moline, Ill. Filed Oct. 27, 1919. Serial No. 333,744. 11 Claims. (Cl. 164—118.)



1. In a device of the class described, a movable member having a recessed extension the lower side of the recess having a downward and inward inclination; a tool-holder provided with a tongue adapted for engagement with said recessed extension; and means for attachment of said tool-holder to said movable member, at a point other than said extension.

1,415,247. LUMBER JACK SAW. HARVE ALLEN KNOWLES, Stockport, Iowa. Filed Sept. 30, 1920. Serial No. 413,720. 3 Claims. (Cl. 143—32.)



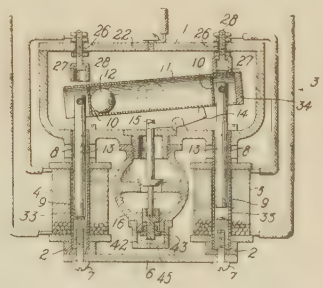
1. A power saw comprising a substantially rectangular frame, a rotatable disk disposed exteriorly of a side member of the frame and having a hub extending through the side member of the frame into the interior thereof, a transverse rotatable shaft journalled in the hub and having its outer end extended beyond the disk, a bearing for said disk, said bearing being secured to the adjacent side member of the frame, a cap arranged to loosely receive said bearing and being secured to the disk to rotate therewith, said cap being formed with a guidway in the outer wall of the top thereof, carrying means slidably disposed in said guideway, longitudinally carrying

and guiding member secured to said first named carrying means and substantially alined therewith, an endless chain saw arranged to be operated by said shaft and being passed around the outer ends of said carrying and guiding members, means for slidably moving said carrying means relatively to said cap to adjust the effective length of said chain saw, means for anchoring said frame in a desired position relative to the work to be engaged, means for operating the shaft, and a spring motor mounted on said hub and tending to rotate the same to rotate said cap and thereby constantly move said saw blade in the direction to operatively engage the work.

1,415,248. SPARK PLUG. LOUIS E. KOTTMEYER, Rhineland, Mo. Filed June 28, 1920. Serial No. 392,288. 2 Claims. (Cl. 123—169.)

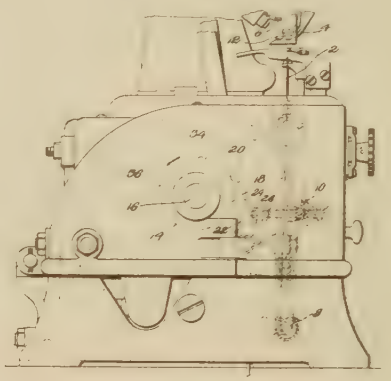
1. A spark plug for internal combustion engines comprising a stationary electrode, a chamber disposed opposite and adjacent thereto, and a plunger fitting loosely within said chamber, the base of said chamber being restricted to provide a space beneath the plunger when the latter is seated, whereby the plunger may be intermittently moved into contact with said electrode by aid of the gas within the engine.

1,415,249. VALVE. EDWIN B. LANE, West Hoboken, N. J. Filed June 17, 1918. Serial No. 240,337. 2 Claims. (Cl. 236—72.)



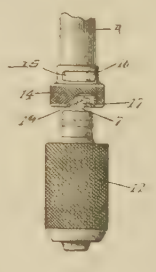
1. A valve combining a conduit, a movable part adapted to control the flow of fluid in said conduit, a pair of solenoids adapted respectively to move said part in one direction or the other, cores for said solenoids, a runway centrally pivoted and connected at either end with said cores, the initial movement of either core serving to reverse the inclination of the runway, a mass movable in the runway, whereby said mass travels to the other end of the runway and remains there, to hold said part in its new position, and means outside the runway whereby the circuit of the solenoid is broken during the movement of its core, after said mass has started to travel down the runway.

1,415,250. MACHINE FOR SEWING BUTTONS TO SHOE UPPERS. BERNARD T. LEVEQUE, Wenham, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed July 14, 1920. Serial No. 396,075. 8 Claims. (Cl. 112—255.)



2. A button attaching machine having, in combination, means for passing a primary loop through a button eye and a secondary loop through the primary loop outside the eye and for spreading the secondary loop, means for passing the button head through the secondary loop, and means for relieving the tension on the thread of the secondary loop during the passing of the button head therethrough.

1,415,251. SCREW DRIVER. WARREN L. MCLEAN, San Francisco, Calif. Filed May 24, 1920. Serial No. 383,617. 2 Claims. (Cl. 145—53.)

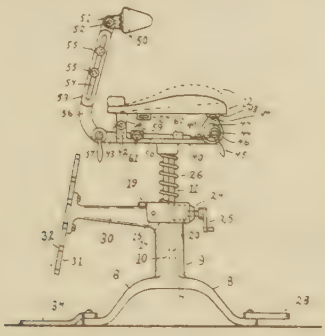


1. In a screw driver of the character described the combination with a spiral tool shank, a tube casing having a threaded connection with the shank to rotate the same by relative endwise movement and a handle secured to the tube of an annular shoulder formed on the tube below the handle and a collar turnably mounted on the tube between said shoulder and the handle.

1,415,252. TREATMENT STOOL. JOHN V. MCMANIS, Kirksville, Mo., and FRANK KOENIGKRAMER, Cincinnati, Ohio. Filed July 31, 1918. Serial No. 247,649. 14 Claims. (Cl. 155—28.)

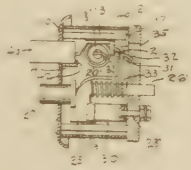
1. A treatment stool of the character disclosed comprising a seat for a patient having a polygonal seat standard and vertically adjustable relative to its supporting base, a supporting base having a vertically disposed channel with converging walls to engage a plurality of faces of said seat standard, and a clamping member pivotally mounted relative to said base opposite the channel on the base and provided with a vertically dis-

posed channel with converging walls to engage a plurality of faces of said seat standard to retain said standard rig-



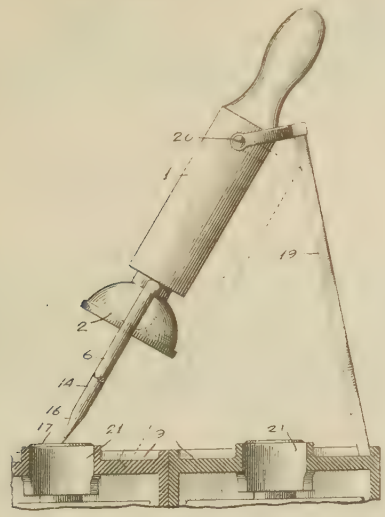
idly to its adjusted position against movement axially or rotatably relative to said base under the variety of strains incident to the use of said stool.

1,415,253. THERMAL ELECTRIC CUT-OUT. ROY H. MAPLE, Indianapolis, Ind. Filed Aug. 7, 1916, Serial No. 113,541. Renewed Sept. 29, 1921. Serial No. 504,149. 9 Claims. (Cl. 200—116.)



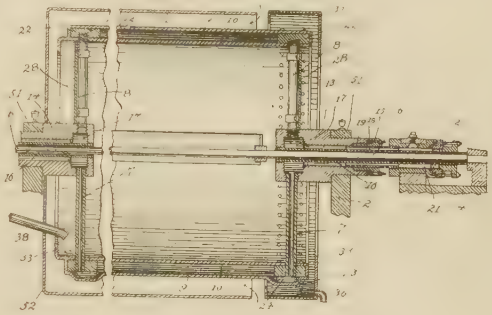
1. A thermal switch construction including a base plate, a helical thermal strip with its inner end fixed to said plate and the other end free to move when the strip is influenced by change in temperature, a lateral projection on the free end of said strip, a movable switch member with one end slotted to receive said thermal strip, said projections normally holding said switch member in closed position and releasing therefrom when the strip is expanded, and a spring for opening said switch member after it has been released.

1,415,254. BATTERY-TESTING LAMP. CARL L. MARITZEN, San Francisco, Calif. Filed Jan. 22, 1921. Serial No. 439,284. 8 Claims. (Cl. 240—2.)



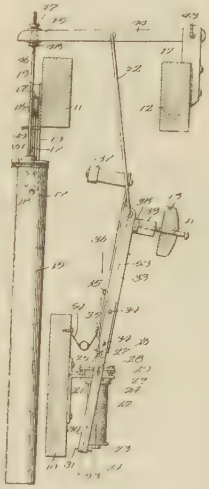
1. A new article of manufacture comprising a tripod two legs thereof being conductors and spaced to engage the terminals of a storage battery and the like; and an electric lamp connected to said legs and lighted by current from said battery passing through said legs, said lamp being positioned to direct light rays into the opening of said battery.

1,415,255. EVAPORATOR. JOHN C. MILLER, Covington, Ky., assignor to The Evaporating and Drying Machinery Company, Cincinnati, Ohio, a Corporation of Ohio. Filed May 10, 1918. Serial No. 233,744. 5 Claims. (Cl. 127—9.)



2. In an evaporating apparatus, the combination of an open cylinder of slightly greater diameter at one end than the other, with a closed concentric cylinder attached to and enclosing the same to form a heating compartment, means for providing a continuous circulation of heating medium through said compartment, means for rotating the open cylinder at a high rate of speed, and a scraper fixed with relation to the open cylinder to continuously stir the liquid under treatment, and means for collecting the evaporated liquid delivered by centrifugal force from the larger end of the open cylinder, and fan blades fixed across said open cylinder attached thereto and rotating therewith to drive a continuous current of air therethrough.

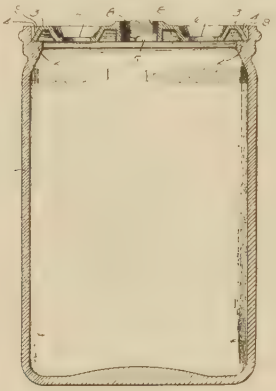
1,415,256. CHIME-STRIKING ACTION. LEONARD D. MORRIS, Chicago, Ill. Filed Aug. 7, 1919. Serial No. 315,801. 5 Claims. (Cl. 177—7.)



2. In a chime striking action, the combination of a vertically disposed electro-magnet, a yoke pivoted above said magnet and provided at its lower end with an armature adapted to be actuated by said magnet, a hammer carried by said yoke above the magnet, a chime disposed in the path of movement of said hammer, a horizontally disposed arm pivotally mounted above said hammer, a damper suspended from said arm in alignment with said chime, a

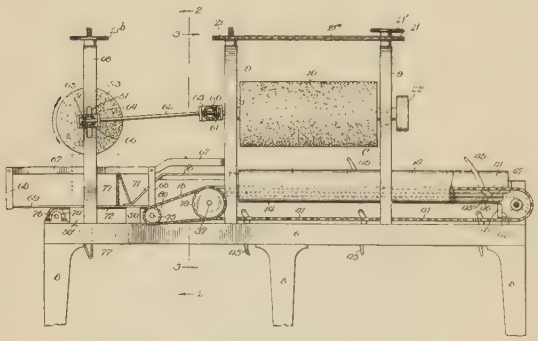
link pivotally connecting said arm and said hammer support providing in conjunction with said support a toggle adapted upon movement of said hammer toward said chime to lift said arm whereby said damper is lifted out of engagement with said chime, and means for restoring said hammer to inoperative position and reengaging said damper with said chime.

1,415,257. STORAGE-BATTERY CELL. ROBERT D. MOWRY, Chicago, Ill. Filed Apr. 12, 1920. Serial No. 373,159. 2 Claims. (Cl. 215—80.)



1. A storage battery cell comprising a rectangular jar having an inwardly projecting strengthening rib or flange near its upper end and being provided with unrestricted straight sides below said flange, a rectangular cover of insulating material having beveled side edges extending from the upper face of the cover to the lower edge thereof, the lower edge of the cover being arranged to rest on the inwardly projecting flange, whereby a V-shaped groove is formed between the cover and the sides of the jar above the flange, and a sealing material disposed in said V-shaped groove for sealing said cover to said jar.

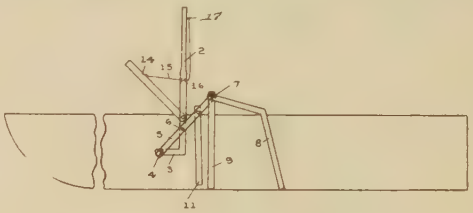
1,415,258. CAN-POLISHING MACHINE. ANDREW NELSEN, Chicago, Ill. Filed Nov. 22, 1920. Serial No. 425,604. 6 Claims. (Cl. 15—70.)



1. In a can polishing machine, the combination with a pair of parallel horizontally journaled buffing rolls, and a horizontal conveyor for causing cans to travel endwise beneath and between said rolls, of a third horizontally journaled buffing roll beyond and at right angles to said pair of buffing rolls, a conveyor for causing the cans to travel sidewise beneath said third roll, and means for guiding the cans and turning them on end between said rolls.

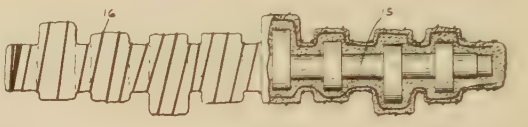
1,415,259. HAND-PROPELLED VEHICLE. WILLIAM L. NICOLS, Tuscumbia, Ala. Filed Dec. 27, 1920. Serial No. 433,126. 12 Claims. (Cl. 208—158.)

1. A hand propulsion mechanism for a vehicle, comprising a rowing arm having at its lower end a forward extension which is pivoted to the vehicle and having a member projecting rearwardly from and rigid with the



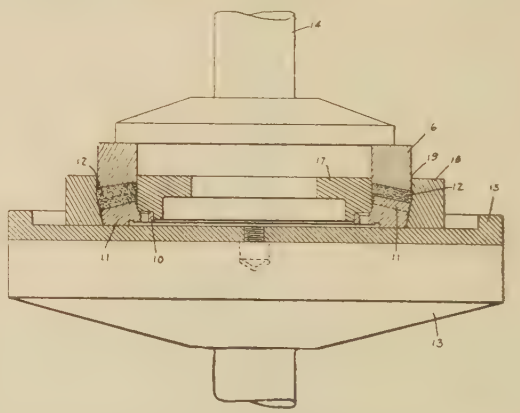
arm, and an angled kicker bar pivotally connected to said member.

1,415,260. PROCESS OF HARDENING METAL ARTICLES. GEORGE COLEMAN NIXON, Detroit, Mich., and FREDERICK CHARLES RAAB, Syracuse, N. Y. Filed Oct. 25, 1919. Serial No. 333,237. 2 Claims. (Cl. 148—30.)



1. The process of carburizing metal, which process includes combining carburizing material in suitable form with a substance that renders it adherent and plastic applying said plastic material to a relatively narrow strip of cloth or the like so as to form a relatively thick tape of carburizing material, wrapping and securing said tape like form of carburizing material spirally on the portion of the article to be carburized and then heating the article with the carburizing material thus secured thereon.

1,415,261. PROCESS OF CASE HARDENING ARTICLES. GEORGE C. NIXON and FREDERICK CHARLES RAAB, Syracuse, N. Y. Filed Jan. 17, 1921. Serial No. 437,846. 3 Claims. (Cl. 148—19.)

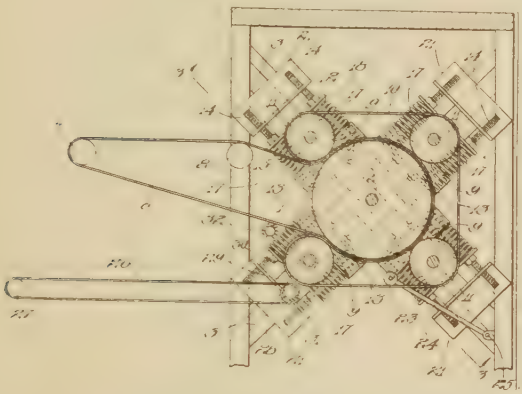


1. The process of carburizing metal, which process includes covering the portion of the article to be carburized with adhering carbonaceous material under pressure sufficient to cause the same to rigidly adhere to the article and form a relatively thick layer thereon, and then heating the article with the carburizing material thus secured thereon.

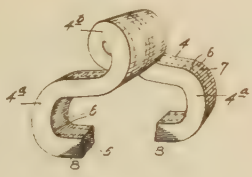
1,415,262. MANGLE. JAMES NORRIE, Quincy, Mass. Filed Mar. 5, 1921. Serial No. 449,748. 2 Claims. (Cl. 68—13.)

1. A mangle having a main roll, a plurality of pressure rolls grouped around said main roll, an endless apron which runs around said main roll and around a supporting

roll at a distance from said main roll, an endless apron which runs around all of said pressure rolls and also runs around the said main roll in superposed relation to the said first apron, two of said pressure rolls being on diametrically opposite sides of the main roll, two sets of springs which respectively maintain said pressure rolls against the main roll, exerting their pressure in diametrically opposite directions, slidable mounts for said pressure rolls, whereby said mounts are capable of being moved a limited distance at right angles to the axis of the main roll, and means whereby when the said slidable mount is moved in one direction one set of springs will have their tension increased and the other set of springs will have their tension correspondingly decreased.

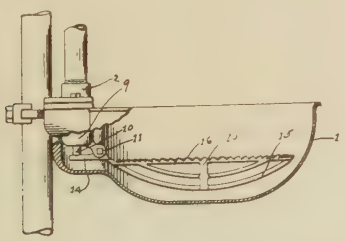


1,415,263. SPRING OILER. HALLIE NORRIS, Pittsburgh, Pa. Filed May 16, 1921. Serial No. 469,917. 8 Claims. (Cl. 184—1.)



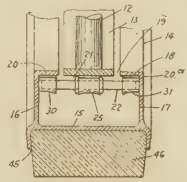
3. A spring oiler comprising a laminated body of oil-absorbing material having a protective covering of sheet material, and resilient wire reinforcing means contained within the said body of oil-absorbing material.

1,415,264. VALVE-ACTUATING MECHANISM FOR STOCK-WATERING BOWLS. JOHN B. OLSON, Fort Atkinson, Wis., assignor to James Manufacturing Company, Fort Atkinson, Wis., a Corporation of Wisconsin. Filed Dec. 27, 1921. Serial No. 524,975. 4 Claims. (Cl. 119—75.)



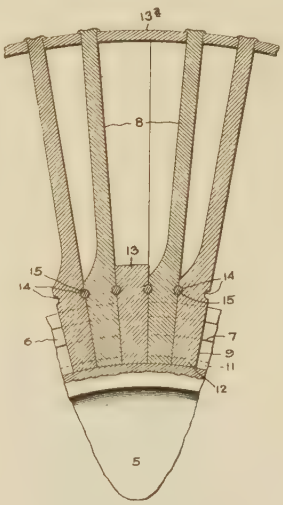
1. The combination with a watering bucket provided with a supply valve and a lever in said bucket adapted to operate said valve, of means connected with the lever for preventing stock from throwing out the water.

1,415,265. RESILIENT VEHICLE WHEEL. JOHN A. OSTENDORF, Baltimore, Md. Filed Aug. 21, 1920. Serial No. 405,141. 3 Claims. (Cl. 152—36.)



1. A resilient vehicle wheel, comprising an inner circular member having a hub, an annular casing of larger diameter than the inner member and having in its inner periphery an opening in which the peripheral edge part of the inner member is movably disposed, elastic strip like elements disposed crosswise at spaced intervals throughout the circumference of the interior of the casing, said elements carrying the inner member in yielding suspension in the annular casing and spaced parts of each element being resiliently connected to the casing, and an annular tread member on the outer periphery of the casing.

1,415,266. ELASTIC-FLUID TURBINE. CHESTER S. RICE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 30, 1919. Serial No. 320,759. 3 Claims. (Cl. 253—77.)

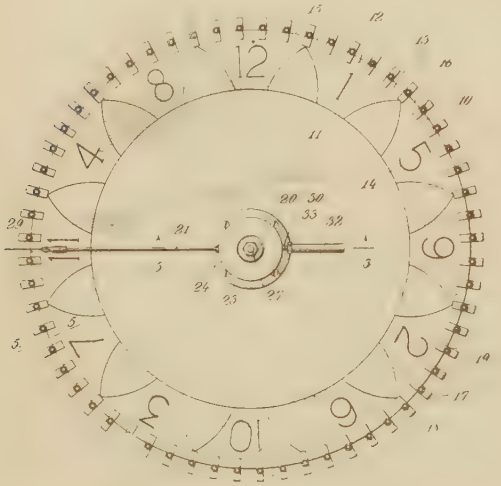


1. In combination, a bucket-carrying member, a ring of buckets having their bases fixed thereto, the bases of the buckets being in engagement with each other just beyond the periphery of the carrying member at which points said bases are provided with holes extending transversely of the member, each hole being formed partly in one bucket base and partly in the adjacent bucket base, and pins located in said holes making a tight fit therewith, said pins forming a supplemental holding means for the ring of buckets.

1,415,267. GAME APPARATUS. WILLIAM ROTH, New York, N. Y. Filed Mar. 10, 1921. Serial No. 451,398. 6 Claims. (Cl. 46—56.)

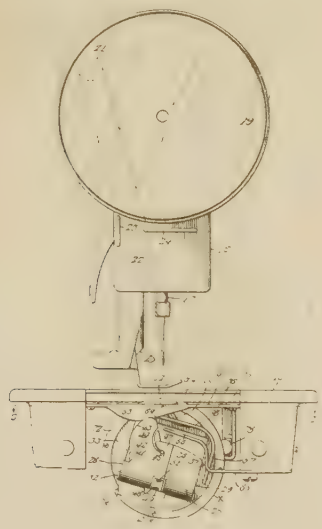
1. A game apparatus comprising a game board having an anuular portion divided into fields, each field bearing a distinguishing character, pins rising from said board at the periphery of said annular portion and dividing the same into equal divisions, said pins being adjustably se-

cured to said board, a rotary element operating in a plane parallel to that of said board and turning about an axis



in the center of said annular portion, and a blade-spring fixed to said rotary element and co-operating with said pins.

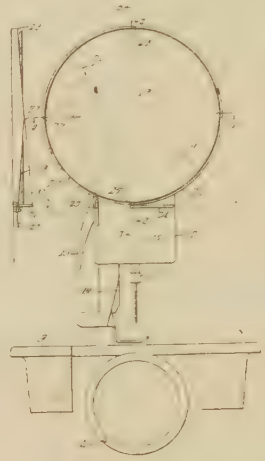
1,415,268. REVOLVING-HOOK SEWING MACHINE. ALBERT D. SMITH, Detroit, Mich. Filed July 30, 1918. Serial No. 247,423. 17 Claims. (Cl. 112—228.)



1. In a revolving hook sewing machine, the combination with a revolving hook, of a thread receptacle within the revolving hook, having an outer wall adapted to swing from an outer open position to an inner operative position, said outer wall having a thread-guiding surface extending above the thread body proper within the receptacle for guiding the loop end after it has been cast off the hook.

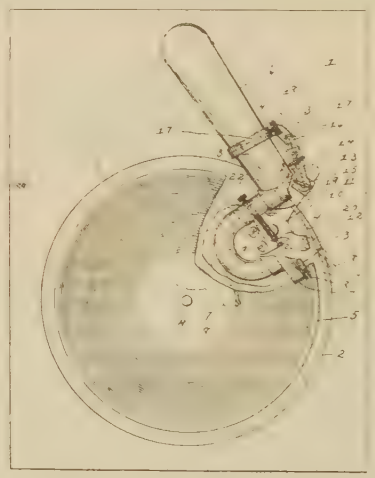
1,415,269. ROTARY TAKE-UP FOR SEWING MACHINES. ALBERT D. SMITH, Detroit, Mich. Filed Aug. 20, 1918. Serial No. 250,651. 3 Claims. (Cl. 112—248.)

1. A rotary take-up structure for sewing machines comprising a pair of rotary disks connected by an eccentric thread-engaging means, thread guides at the underside of the take-up as it enters between and leaves the disks so that a comparatively large slack of thread is produced, and means for controlling the slack thread when the eccentric thread-engaging means descends, comprising a casing for the rotary disks open at the front thereof and having



an annular wall at the descending side of the disks extending outwardly a substantial distance beyond the outermost disk.

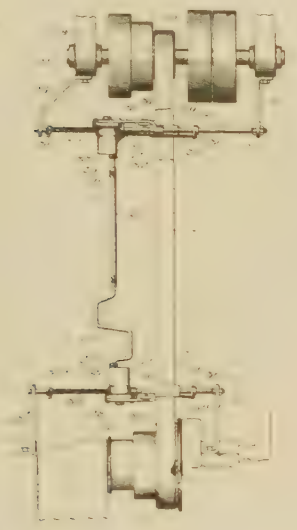
1,415,270. STOPPING ATTACHMENT FOR PHONOGRAPHS. FRANK E. SMITH, Troy, N. Y., assignor of one-half to E. Augustus Dennin, Troy, N. Y. Filed June 7, 1921. Serial No. 475,722. 5 Claims. (Cl. 192—116.)



2. In a phonograph-stopping mechanism, the combination with the tone-arm; and the record-supporting turntable; of a brake-lever; a link having one end pivotally connected with the tone-arm and the other end pivotally connected with the brake-lever; and a brake carried by said brake-lever engageable with the turntable in either extreme position of the tone-arm.

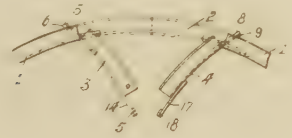
5. In a phonograph-stopping mechanism, the combination with a tone-arm; and the record-supporting turntable; of a bracket adjustably mounted upon the tone-arm; means for securing said bracket in selected adjusted position; a brake-lever; a link having one end pivotally connected with said bracket and the other end pivotally connected with the brake-lever; a brake carried by said brake-lever engageable with the turntable at the end of the record-induced movement of the tone-arm; and a spring tending to move the tone-arm in the same direction in which its movement is induced by the record.

1,415,271. BELT SHIFTER. ROBERT SPURGIN, Jr., Chicago, Ill. Filed Feb. 23, 1918. Serial No. 218,872. 17 Claims. (Cl. 64—4.)



1. In a belt shifting mechanism, a guide member, an operating shaft, a carrier including a belt shifting element slidable on the guide member and transversely of the shaft, and manually operable means including a stationary flexible element for propelling the carrier along the guide member.

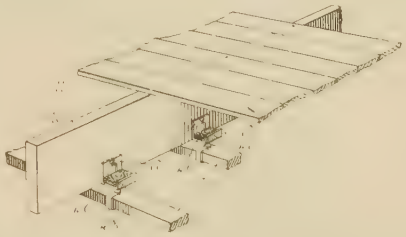
1,415,272. DEMOUNTABLE RIM. ALFRED C. STANTZ, Detroit, Mich. Filed Sept. 20, 1920. Serial No. 411,480. 4 Claims. (Cl. 301—32.)



1. A rim of the class described, having a plurality of sections adapted to have end abutment, one section having a pair of sockets adjacent to its end and the other section a single socket adjacent to its end, a pair of angled fingers projecting from the end of the section having a single socket and adapted to lap the end of the adjoining section and to enter the sockets thereof, and a single angled finger projecting from the end of the other section and adapted to lap the end of the adjoining section between the fingers thereof and to enter the socket in the lapped section.

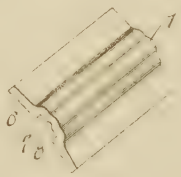
1,415,273. CEILING CONSTRUCTION. CHARLES WHITNEY STEVENS, Chicago, Ill., assignor to Stevens Partition and Floor Deadener Co., Chicago, Ill., a Corporation of Illinois. Filed Mar. 9, 1917. Serial No. 153,678. 6 Claims. (Cl. 20—4.)

1. A building construction comprising a horizontally-extending support, a ceiling construction therebeneath, and a plurality of cushioning supports for suspending said ceiling construction from said horizontal support, each cushioning support serving as a sound indicator to prevent the ready transmission of sound from the horizontally extending support to the ceiling, and also as a yield-



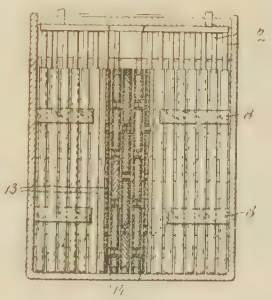
ing ceiling support whereby the possibility of cracking of the ceiling plaster is minimized.

1,415,274. FLUME CONSTRUCTION. AUGUSTUS H. STOWELL, Spokane, Wash. Filed June 7, 1920. Serial No. 386,989. 2 Claims. (Cl. 72—37.)



1. A tile for double wall construction having a groove centrally of the inner face adapted to receive portions of the inner tiles of said wall, said groove having a recess extending longitudinally thereof adapted to receive a reinforcing rod, and said tile having longitudinally extending central ribs on its exterior surface.

1,415,275. STORAGE BATTERY. NORMAN DEXTER STURGES, Bellerose, N. Y., assignor, by mesne assignments, to Multiple Storage Battery Corporation, a Corporation of Delaware. Filed Jan. 5, 1921. Serial No. 435,059. 8 Claims. (Cl. 204—29.)

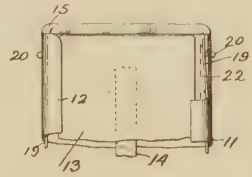


1. A method of preventing disintegration of the plates of electric storage batteries of the lead-sulphuric acid type, which comprises subjecting the active material on the opposite faces of the plates to pressure of a flexible non-conducting medium contacting therewith and rigidly connected at a plurality of points through the faces of the plates whereby the effective pressure is applied to a plurality of relatively restricted areas of the active material.

1,415,276. CARD HOLDER. EDWARD TERNER, Milwaukee, Wis. Filed Feb. 21, 1921. Serial No. 446,827. 5 Claims. (Cl. 206—39.)

1. A card holder with a contracted opening in the top thereof, a hinged cover at one end, a spring pressed

follower within the holder and adapted to press a stack of cards toward the contracted opening, flexible guide springs arranged within the holder and spaced by a stack

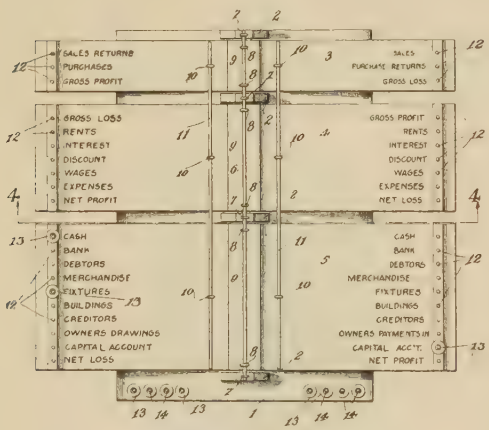


of cards inserted therein, means on the hinged cover engaging the said springs to hold the cover in closed position and prevent the ejection of the cards other than singly from the holder.

1,415,277. PROCESS FOR THE MANUFACTURE OF DECOLORIZED, ODORLESS, AND TASTELESS ALBUMINS FROM BLOOD. ADRIANUS JOHANNES LEONARDUS TERWEN and CORNELIS JOHANNES CHRISTIAAN VAN HOOGENHUYZE, Amsterdam, Netherlands. Filed Sept. 30, 1918. Serial No. 256,362. 1 Claim. (Cl. 99—11.)

The process of obtaining decolorized, odorless and tasteless water-soluble albumin from blood, which comprises subjecting the blood to a protracted treatment with a dilute acid; adding hydrogen peroxide and allowing the liquid to stand, and thereafter adding an alkali to neutralize the blood and allowing the liquid to stand until completely decolorized.

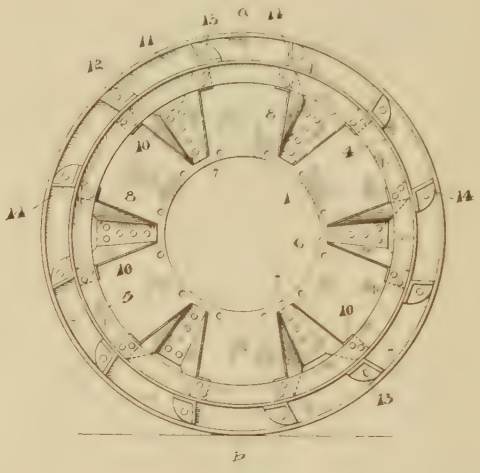
1,415,278. APPARATUS FOR TEACHING BOOKKEEPING. FREDERICK TOD, Winnipeg, Manitoba, Canada. Filed May 10, 1921. Serial No. 468,376. 14 Claims. (Cl. 35—12.)



14. A means for teaching bookkeeping comprising a plurality of levers arranged side by side to rock about a common axis, each of said levers representing a general account and having both arms provided with a corresponding plurality of upwardly projecting pins or studs and representing individual accounts, a series of apertured discs adapted to be fitted about any of said pins to represent items of the particular account, and means for connecting said levers so that they will vibrate together.

1,415,279. TRACTOR WHEEL. WILLIAM GRIFFITH TRETHEWEY, Cuckfield, England. Filed June 4, 1921. Serial No. 475,117. 5 Claims. (Cl. 301—52.)

1. A tractor wheel comprising a disk adapted to be secured to a hub; a narrow rim band carried by said disk; brackets secured to said disk; a second rim band spaced from the first and secured to and supported by

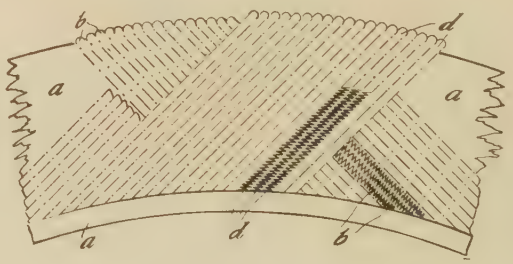


the brackets; and transverse ground gripping members secured to said rims.

1,415,280. METHOD FOR THE PRODUCTION OF COMPOUNDS CONTAINING SILICON AND NITROGEN. FOORD VON BICHOWSKY, Glendale, Calif. Filed Feb. 23, 1921. Serial No. 447,281. 4 Claims. (Cl. 23—13.)

1. The process of producing compounds containing silicon and nitrogen by heating a silicon oxygen compound containing reactive mass and comprising a metallic oxide and a metal of the iron group together wtih an alkali metal salt, in the absence of carbon, as a chemical reactive, but in the presence of methane and nitrogen.

1,415,281. TIRE COVER AND THE LIKE. ALFRED EDMUND WALE, Coleshill, England, assignor to Alfred Eugene Harris, Leamington, England, and Ernest Henry Jones, Islington, London, England. Filed June 6, 1913. Serial No. 772,098. 5 Claims. (Cl. 152—18.)

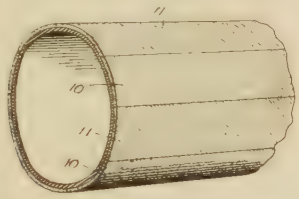


1. A pneumatic tire casing comprising layers of wire helices filled with elastic material such as rubber, said wire helices passing diagonally over the tire casing but not being connected into a continuous intercoiled fabric, the helices in one layer crossing those of another layer, beaded edges at the side margins of the tire casing, and said wire helices being arranged so that they pass over not only the perimeter of the tire casing but also down each side of said casing to the beaded edges thereof and are suitably anchored there.

1,415,282. COATING COMPOSITION. MICHAEL J. WALSH, Philadelphia, Pa. Filed Mar. 9, 1920. Serial No. 364,392. 8 Claims. (Cl. 134—45.)

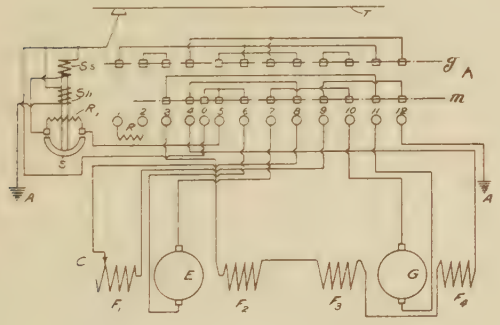
1. A coating composition comprising a liquid component resulting from the admixture of sulphuric acid, whiting, gum, rosin, petrolatum, mineral oil, sodium silicate and kerosene.

1,415,283. INNER TUBE FOR AUTOMOBILE TIRES. HERBERT N. WAYNE, Washington, D. C. Filed Aug. 21, 1920, Serial No. 405,005. Renewed Sept. 28, 1921. Serial No. 503,928. 6 Claims. (Cl. 152—13.)



1. An inner tube for pneumatic tires consisting of a body portion constructed of calendered fibrous material in mixed combination with rubber applied in two or more zones, the longitudinal direction of the fibres in one zone lying at a different angle to the longitudinal direction of the fibres in the next adjoining zone.

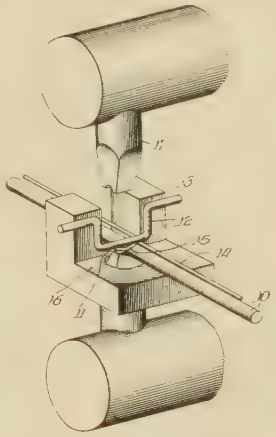
1,415,284. REGENERATIVE MOTOR-CONTROL SYSTEM. SAMUEL T. WEBSTER, St. Louis, Mo., assignor, by mesne assignments, to General Electric Company, a Corporation of New York. Filed Jan. 6, 1919. Serial No. 269,772. 10 Claims. (Cl. 172—179.)



3. In a regenerative control system, the combination with a line circuit, and a series motor having an armature and field windings, adapted to act as a braking generator, and adapted for connection to said line circuit to receive current therefrom and operate as a motor, of means for connecting said motor to said line circuit, adapted to cause said motor to act as a generator and return current to said line circuit, and means cooperating with said motor, adapted to limit the value of but maintain the flow of the regenerated current, and thereafter decrease the value of the regenerated current upon further increase of the speed of said motor.

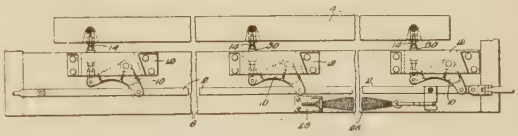
1,415,285. METHOD OF MAKING SPACING DEVICES FOR REENFORCING BARS. WILLIAM E. WHITE, Chicago, Ill. Filed June 25, 1920. Serial No. 391,776. 3 Claims. (Cl. 29—160.)

1. The method of making spacing devices, which consists in bending a tie wire to provide an eye therein, then forming a chair member, then placing the chair and a spacing element in a die with the eye of the tire wire interposed between the chair and spacing element, and then applying pressure as an incident to an electric welding operation by which the chair and spacer are



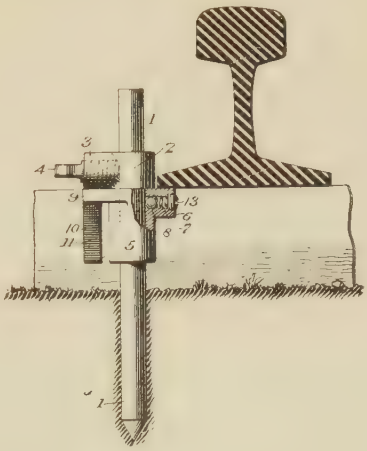
joined at a point within the said eye, substantially as described.

1,415,286. LOOM. EZEKIAL J. WILSON, East Greenbush, N. Y., assignor to F. C. Huyck & Sons, Rensselaer, N. Y., a Corporation of New York. Filed May 23, 1921. Serial No. 471,641. 5 Claims. (Cl. 139—67.)



4. A loom having, in combination, a lay, an endwise reciprocating actuating bar parallel thereto, and a series of adjustable connections connecting the bar with the lay at intervals throughout its length.

1,415,287. INDICATOR FOR DOWNWARD DEFLECTION OF RAILROAD RAILS. WARREN W. WOOSTER, Berlin, N. J. Filed Oct. 30, 1919. Serial No. 334,622. 7 Claims. (Cl. 73—51.)

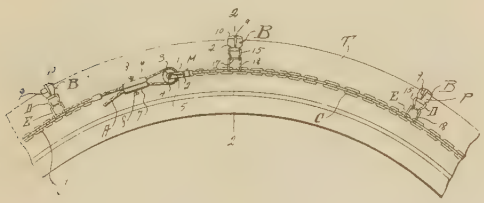


1. A portable indicator for the downward deflection of railroad rails, comprising a support adapted to be inserted in the ground, a member adapted to be depressed by the rail, a movable index finger cooperating with said last-named member, and a relatively fixed member cooperating with the said finger and retained in its position on the member on which the said finger is movable.

1,415,288. VEHICLE WHEEL. CHESTER B. ALLEN, Memphis, Tenn. Filed July 1, 1921. Serial No. 481,843. 11 Claims. (Cl. 301—63.)

1. A dished single disk wheel composed of a plurality of layers of wood secured together by an adhesive substance.

1,415,289. ANTISKIDDING DEVICE. ALFRED R. ANDERSEN, Rock Springs, Wyo. Filed Feb. 23, 1922. Serial No. 538,716. 1 Claim. (Cl. 152—14.)

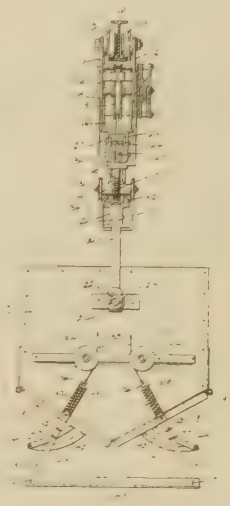


A device of the class described comprising a pair of side members, tread units interposed between and connected with said side members, a flexible member secured to an extremity of each of said side members, a substantially U-shaped member carried by the opposite end portion of said side member, one of the side arms of said last named member having swinging movement, a shaft supported by the outer extremities of the side arms of the last named member, a pulley mounted upon said shaft between the arms, the flexible member at the opposite extremity of said side member being disposed around the pulley, spring hooks carried by the side arms of the last named member and engageable with the extremities of the shaft to hold the shaft and pulley in applied position, and means connecting the portion of the flexible member in advance of the pulley and the portion of the flexible member outwardly of the pulley.

1,415,290. METHOD AND APPARATUS FOR GARBAGE DISPOSAL. CHARLES G. ARMSTRONG, New York, N. Y. Filed Feb. 24, 1917. Serial No. 150,859. 2 Claims. (Cl. 71—6.)

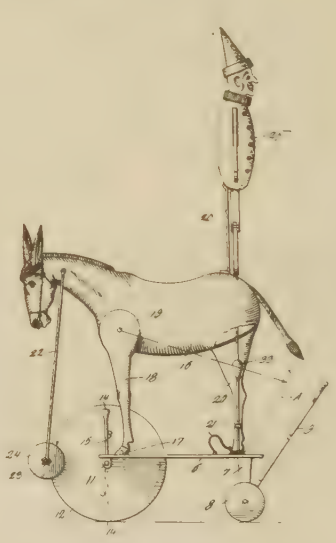
1. The process of collecting and disposing of garbage consisting in establishing one or more receiving bins for the garbage, saturating the garbage in the depots with a hydrocarbon to deodorize the same and to act as a solvent in the subsequent treatment thereof, then transferring the garbage from the depots to a reduction plant, then adding to the garbage any additional hydrocarbon required and applying heat to the same, separating therefrom the oils, greases and water contained therein.

1,415,291. BUCKET-DOOR-OPENING MECHANISM. FRANKLIN E. ARNDT, Galion, Ohio, assignor to The Galion Iron Works & Mfg. Co., Galion, Ohio, a Corporation of Ohio. Filed Mar. 26, 1921. Serial No. 455,903. 8 Claims. (Cl. 294—71.)



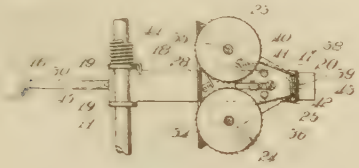
1. In a material transporting mechanism of the character described, a bucket having a door controlling the discharge of material therefrom, means for raising or lowering the bucket, means for automatically closing the door upon the upward movement of the bucket to a predetermined height, means for latching said door in a closed position, and means acting to unlatch the door to permit the door to swing open when the bucket has descended to a predetermined position.

1,415,292. TOY. THOMAS NORWOOD ARNOLD, Fairport, N. Y. Filed Dec. 23, 1920. Serial No. 432,733. 3 Claims. (Cl. 46—45.)



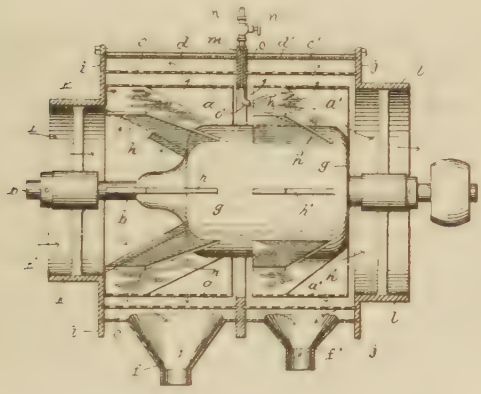
1. A toy including a base, one end of which is equipped with a driver wheel, a figure mounted upon said base, a pendulum operable by movement of said driver to lower one end of said figure and raise the opposite end thereof, and means carried by said figure and automatically movable by the elevation of one end thereof to describe various phases of movement.

1,415,293. ERASING ATTACHMENT FOR TYPEWRITERS. JOHN H. BALDWIN, Chicago, Ill., assignor to The Baldwin Eraser Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 14, 1918, Serial No. 249,793. Renewed Sept. 26, 1921. Serial No. 503,993. 8 Claims. (Cl. 197—181.)



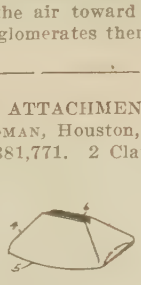
1. The combination with a typewriter frame and platen, of a spool carrying frame swingingly mounted upon the typewriter frame for movement toward the platen and having a contact surface for cooperation therewith, and winding and supply spools rotatably mounted in the spool carrying frame for feeding an adhesive tape over the said contact surface.

1,415,294. DUST SEPARATOR. WILLIAM J. BALDWIN, Brooklyn, N. Y. Filed Mar. 14, 1921. Serial No. 452,223. 3 Claims. (Cl. 183—30.)



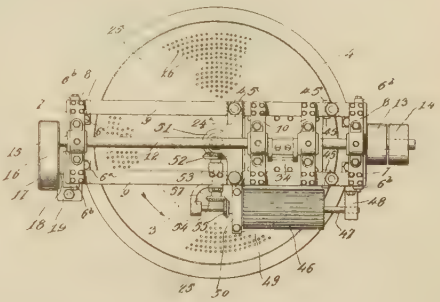
1. In an apparatus for separating gas from heavier materials, the combination, with an outer casing, of a shaft extended longitudinally within the same, primary and secondary cylindrical screens attached to the said shaft with open ends adjacent to one another for the free passage of gas, a drum upon the shaft arranged to clear the inlet of the primary screen for a considerable space, to freely admit the gas within said screen, and extended through the secondary screen, fan-blades connecting the drum with the screens and operating to propel the gas into and through the interiors of the two screens successively, means for spraying moisture into the gas between the secondary screen and drum, and the drum operating to crowd the air toward the secondary screen and discharge the agglomerates therethrough.

1,415,295. FENDER ATTACHMENT. ORLO O. BALLARD and JACOB C. STEDMAN, Houston, Tex. Filed May 15, 1920. Serial No. 381,771. 2 Claims. (Cl. 280—150.)



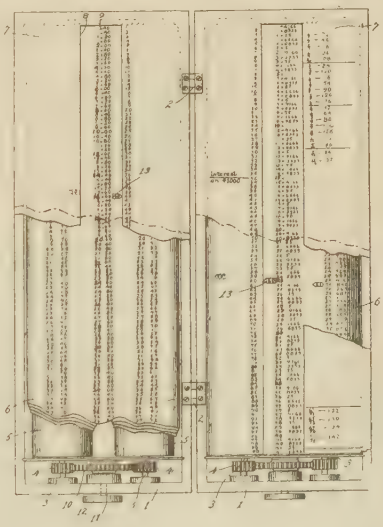
1. An attachment of the character described adapted to be inserted between the automobile fender and the adjacent side plate, and consisting of a cushioning block having a lengthwise groove in one side thereof to receive said plate and having a concave portion on its other side to rest on said fender.

1,415,296. MACHINE FOR SEPARATING FLESH FROM THE SKIN AND BONES OF FISH. JAMES J. BARRY, East Boston, Mass., assignor to L. Pickert Fish Company, East Boston, Mass., a Corporation of Maine. Filed Nov. 12, 1921. Serial No. 514,740. 11 Claims. (Cl. 17—10.)



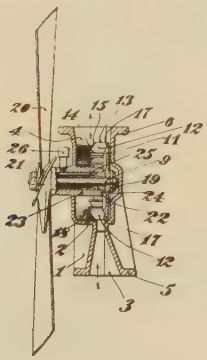
1. In means for separating the flesh of fish from the skin and bones thereof, the combination of a traveling perforated septum, means for pressing the fish against said septum, means for reciprocating said pressing means toward and from said septum, and a yielding connection between said presser means and said means for reciprocating it.

1,415,297. CALCULATING MACHINE. FRANCIS A. BELT, Cincinnati, Ohio. Filed Mar. 4, 1920. Serial No. 363,155. 3 Claims. (Cl. 235—86.)



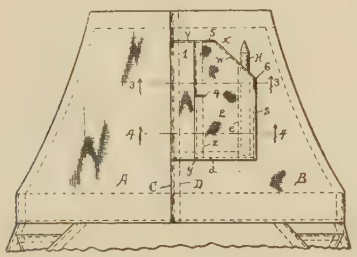
1. In a calculating machine, the combination with a housing, a chart mounted therein upon suitable rollers having transverse columns of numerals, said housing having an elongated opening to expose the transverse columns on the chart, a series of numerals arranged along the opening, each numeral of said series having special relation to one of the columns on the chart, and a special indication device on each column on the chart adapted to come opposite the numeral having special relation to said column, whereby the operator may rapidly move the chart and watch the special numeral for the desired column until an indicator comes opposite it.

1,415,298. STEAM TURBINE. OLIVER D. H. BENTLEY, Roslindale, Mass., assignor to B. F. Sturtevant Company, Hyde Park, Mass., a Corporation of Massachusetts. Filed Aug. 29, 1917. Serial No. 188,848. 14 Claims. (Cl. 253—55.)



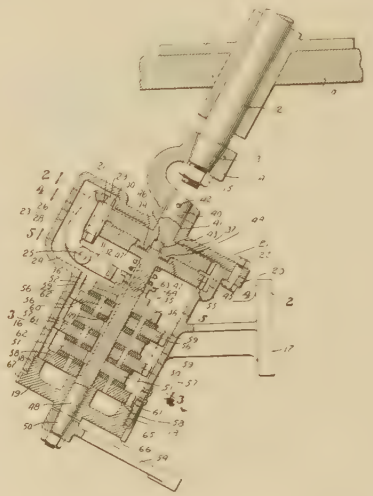
1. A steam turbine, having, in combination, a rotor having steam passages therein with their inlet or receiving end portions adjacent the outer periphery of the rotor substantially in line with the inlet nozzles in the casing and with discharge ports at one side of the rotor, and a casing for the rotor having a steam inlet nozzle and an exhaust opening at the outer periphery of the rotor, an exhaust space at the side of the rotor and a wall in close proximity to the periphery of the rotor between the nozzle and the exhaust opening.

1,415,299. SAFETY OVERALL POCKET. ALONZO S. BLOWERS, Portland, Ind. Filed Dec. 29, 1919. Serial No. 348,063. 1 Claim. (Cl. 2—15.)



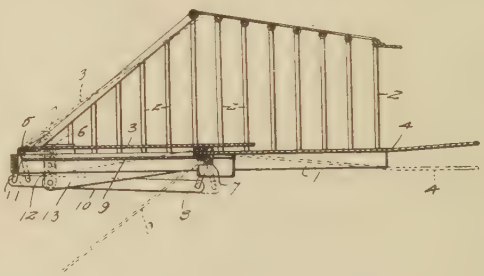
In combination with overalls having a two-part bib secured at its lower edge with the two parts of the bib connected by a vertical line of stitching; a safety pocket comprising two distinct pieces of fabric forming minor and major members, the minor member being formed of a straight oblong strip secured in vertical position at its upper, lower, and left-hand edges, the left hand edge of the minor member being secured between the edges of the members of the bib, the major member of the pocket being of the same length as the minor member but formed considerably wider and its left hand corner portions are truncated, a hem formed at the left hand edge of the major portion said hem being secured by two lines of stitching, the said hemmed edge of the major portion being arranged to extend over the right hand portion of the minor member with the ends thereof located even with each other, lines of stitching for permanently securing together the lower half of the minor and the major members only, whereby a pocket mouth is formed above said lines of stitching, and reinforcements located at the ends of the mouth to the pocket and at the ends of said truncated corner, all substantially as shown and described.

1,415,300. AUTOMATIC LOCKING AND RETAINING DEVICE FOR STEERING MECHANISMS. ALLEN BOROFSKY, Ayer, Mass. Filed June 23, 1919. Serial No. 305,980. 7 Claims. (Cl. 74—39.)



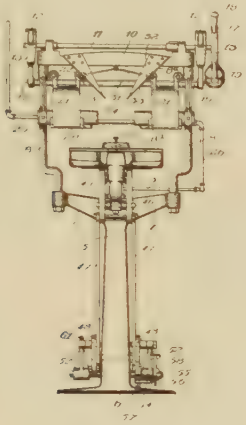
1. A device of the character described, comprising a casing member adapted to be secured to a fixed member for remaining stationary therewith; co-related adjacent and peripherally scalloped disc members coupled to operate together with means provided therebetween for yielding angular play to effect a lead and lag between them, said disc members being rotatably mounted within said casing member and each provided with centrally located spindles projecting in opposite directions and protruding beyond said casing, one engaging with the steering post for rotating therewith, and the other engaging with the steering mechanism operating link; a friction disc clutch mounted on said latter spindle and adapted to control the turning operations thereof; and a co-related transmitting lever adapted to couple said peripherally scalloped disc members with said spindle clutching mechanism for locking and releasing the spindle therewith.

1,415,301. SELF-SET ANIMAL TRAP. RUEL E. BOUNDS and PERRY S. DUMBOLTON, Wortham, Tex. Filed May 26, 1921. Serial No. 472,621. 2 Claims. (Cl. 43—67.)



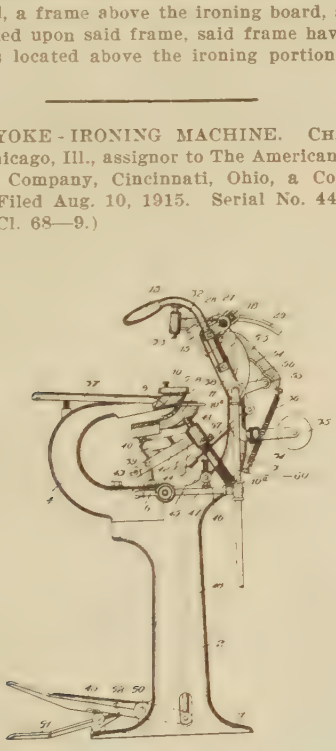
1. A trap of the character specified comprising a body open at one end and bottom, pivoted doors closing the bottom of the trap and arranged the one to swing upwardly and the other downwardly, a third door pivoted at its inner end and adapted to swing downwardly at its outer end and disposed beneath the upwardly swinging door, and connecting means between the several doors, whereby the third door forms counter balancing means for the first two mentioned doors.

1,415,302. IRONING MACHINE. CHARLES L. BRALEY, Chicago, Ill., assignor to American Laundry Machinery Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Dec. 19, 1914. Serial No. 878,058. 16 Claims. (Cl. 68—9.)



15. In a machine for ironing the yokes of shirts, an ironing board, a frame above the ironing board, and irons slidably carried upon said frame, said frame having heating chambers located above the ironing portions of said irons.

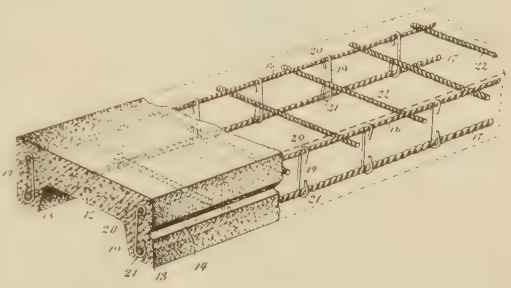
1,415,303. YOKE-IRONING MACHINE. CHARLES L. BRALEY, Chicago, Ill., assignor to The American Laundry Machinery Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Aug. 10, 1915. Serial No. 44,698. 20 Claims. (Cl. 68—9.)



1. In a yoke ironing machine, the combination with a bed, of a carrier swingingly mounted with relation to the bed, and a pair of pressing members mounted on the carrier and movable together up and down relative to said bed, and also having movement toward each other during the downward swinging movement of the carrier.

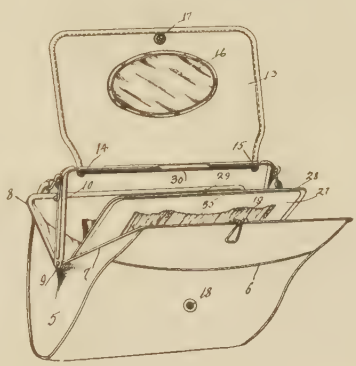
16. In a machine for ironing the yokes of shirts, an ironing board, a horizontally disposed frame above the ironing board, irons slidably carried upon the underside of the frame, said frame having heating chambers above the irons.

1,415,304. PLANKING FOR BRIDGES, ETC. OSCAR E. BRAY, Buffalo, N. Y., assignor of one-half to George C. Broadbooks, Attica, N. Y. Filed Sept. 9, 1920. Serial No. 409,186. 1 Claim. (Cl. 72—64.)



A plank having a concrete body consisting of a horizontal web and vertical flanges depending from opposite longitudinal edges of the web and each flange being provided on its outer side with a horizontal longitudinal groove, and a reinforcement for said body consisting of a plurality of transverse metal bars arranged in a longitudinal row in the web and each extending substantially the full width of said body and having its opposite ends arranged immediately above the longitudinal grooves in said flanges, two upper metal longitudinal rods arranged in the body at the corners between its web and flanges and resting on said transverse rods, a plurality of metal hangers arranged vertically at intervals in each of said flanges throughout the length thereof and each provided at its upper end with a hook engaging over one of said upper longitudinal rods and provided at its lower end with a lower hook, and a lower metal longitudinal rod arranged lengthwise in the lower part of each flange and supported by the lower hooks of the hangers in the respective flange of the body.

1,415,305. HAND BAG. MAX BRILL, New York, N. Y. Filed Jan. 11, 1921. Serial No. 436,425. 7 Claims. (Cl. 150—29.)

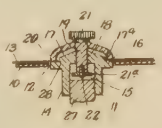


1. In a hand bag a frame comprising an intermediate section and side sections disposed on opposite sides of the intermediate section and pivotally connected thereto, a partition section pivotlaly connected to the intermediate section and arranged so as to telescope therewith and be moved into spaced relation with either side thereof, and a flexible bag body secured to the said side section and to the partition section.

1,415,306. CHART SUPPORT FOR RECORDING INSTRUMENTS. FREDERICK C. BUECHMAN, Brooklyn, N. Y. Filed Mar. 7, 1921. Serial No. 450,324. 6 Claims. (Cl. 234—1.)

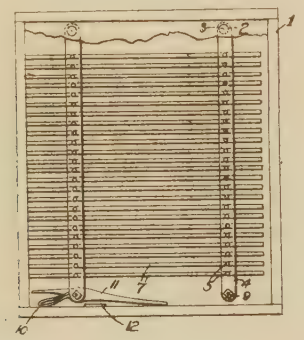
2. A device of the class described comprising a suitable body portion, a cap irremovably mounted in connection

with said body portion and capable of movement toward and from one face thereof, and said cap being apertured



to permit of the threading of an article therethrough whereby said article may be clamped between the abutting faces of said cap and said body portion.

1,415,307. FILING CABINET. AMBROSE ROY BULLOCK, Boston, Mass. Filed July 25, 1921. Serial No. 487,289. 3 Claims. (C. 45—64.)



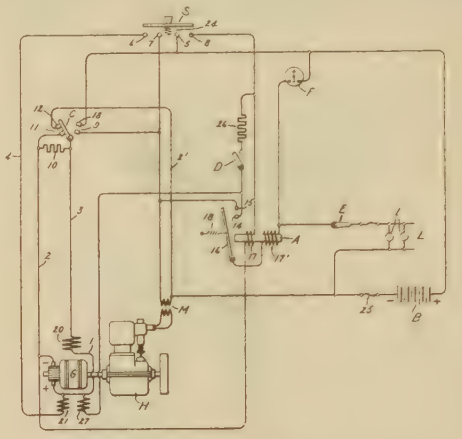
1. A filing cabinet, including a casing, rods secured in the casing, arms suspended from the rods and free to swing thereon, said arms arranged in pairs and provided with alining apertures spaced apart longitudinally thereof, shelves positioned between the arms, wires secured to the shelves and having their ends supported in the apertures, spacing rods secured to the lower ends of the arms, a loop secured to the forward spacing rod for manually swinging the shelves, a lever carried by the forward spacing rod and a catch adapted to contact the rear end of the lever when the shelves are swung to extended position to retain the shelves in such position.

1,415,308. DECOMPOSITION OF ALUMINUM SULPHATE, ETC. HARVEY M. BURKEY, Plainfield, N. J., and HENRY M. SCHLEICHER, Boston, Mass., assignors to American Metal Company, Ltd., New York, N. Y., a Corporation of New York. Filed Feb. 16, 1920. Serial No. 359,044. 6 Claims. (Cl. 23—13.)

1. The method of effecting the decomposition of aluminum sulphate, which comprises heating a solution of the same to a high temperature and pressure.

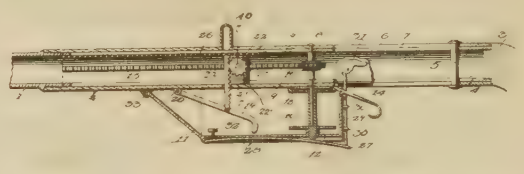
1,415,309. ELECTRIC SYSTEM. FRANK A. BYLES, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 12, 1919. Serial No. 303,601. 7 Claims. (Cl. 290—35.)

5. The combination of an engine, a dynamo electric machine connected thereto and adapted to operate as a motor or as a generator, a storage battery, a starting switch for closing a circuit including said storage battery and said dynamo electric machine to operate said machine as a motor to crank said engine, a relay having a coil responsive to the voltage of said machine when operating as a generator for operating said relay to close a circuit between said machine and battery independent of said starting switch to charge said battery, a locking coil for said relay in series with said charging circuit and arranged to maintain said charging circuit closed as long as the charging current exceeds a predetermined



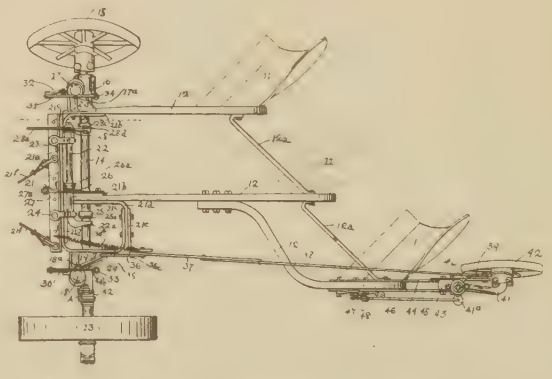
value, and means for energizing said relay independent of said locking coil so as to maintain said charging circuit closed to overcharge said battery.

1,415,310. FISHING ROD. JOHN CLAY CALDWELL, Miami, Fla. Filed June 19, 1920. Serial No. 390,162. 3 Claims. (Cl. 43—20.)



2. A fishing rod comprising a handle, a sleeve slidable therein, a reel associated with the sleeve, a line carrying arm pivoted to said handle and adapted for guiding the line onto the reel, a rack pivoted to said arm for swinging the same, a pinion meshing with said rack, and means operated by the movement of said sleeve to oscillate said pinion.

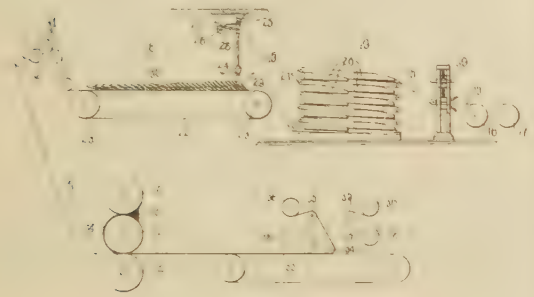
1,415,311. PLOW. WILLIAM W. CAMERON, La Crosse, Wis., assignor, by mesne assignments, to Fred Gerlach and Arnold B. Keller, trustees, Chicago, Ill. Original application filed Feb. 27, 1917, Serial No. 151,347. Divided and this application filed Aug. 1, 1919. Serial No. 314,664. 6 Claims. (Cl. 97—54.)



1. In a plow, the combination of carrying wheels, a plow carrying structure, a supporting structure comprising a crank shaft, a raising and lowering connection between the crank shaft and the plow carrying structure, power operated means for operating the crank shaft,

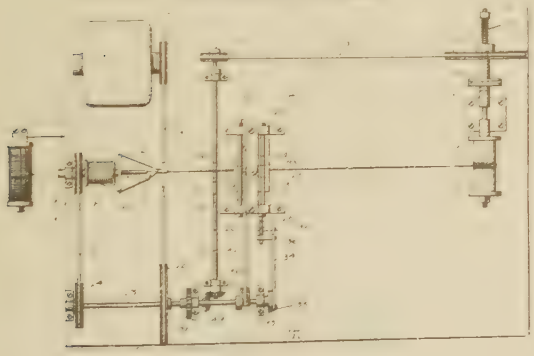
means for releasing the operating means when the crank shaft has passed the dead center, a lock for the shaft, means for carrying the crank shaft from the releasing point to the locking position, and means for releasing the lock.

1,415,312. CONTINUOUS FABRIC FEED. MARTIN CASTRICUM, Springfield, Mass., assignor to The Fisk Rubber Company, Chicopee Falls, Mass., a Corporation of Massachusetts. Filed July 15, 1920. Serial No. 396,457. 1 Claim. (Cl. 91—18.)



In combination with a calender, a source of fabric supply, means for joining the end of one fabric web with the leading end of another fabric web, a belt interposed between the said joining means and the calender and presenting a supporting surface for the fabric web, said belt being driven at a surface speed materially slower than the speed of the fabric web through the calender, and means for laying the fabric web upon the belt in a plurality of substantially even overlying folds.

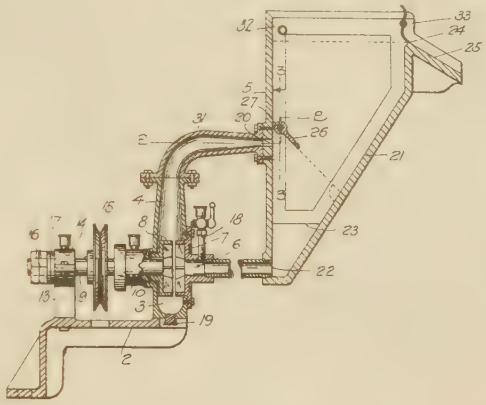
1,415,313. METHOD OF MAKING LEATHER YARN AND ARTICLE. WILLIAM M. CAVANAUGH, New York, N. Y. Filed Oct. 15, 1918. Serial No. 258,210. 4 Claims. (Cl. 28—21.)



3. A leather yarn comprising a core, and twisted, leather strips surrounding the same.

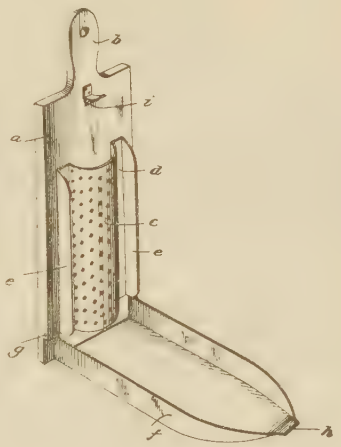
1,415,314. APPARATUS FOR THE SEPARATION OF ORES BY FLOTATION. HERBERT C. COLBURN and ERNEST A. COLBURN, Denver, Colo., assignors to The Colburn Flotation & Engineering Company, Denver, Colo., a Corporation of Colorado. Filed Jan. 3, 1919. Serial No. 269,517. 4 Claims. (Cl. 83—85.)

1. The combination of a settling chamber having an inclined surface and provided with an inlet opening located opposite the said surface and beneath a predetermined liquid level and arranged to discharge in the direction of the inclined surface, a mixing chamber, means for introducing the material from the mixing chamber into the settling chamber in sheet like form, a vertically angularly adjustable baffle arranged within the settling



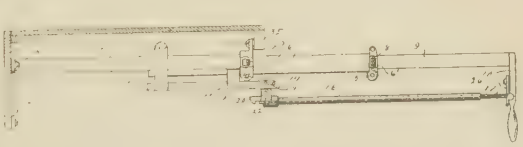
chamber in position overhanging the inlet opening for directing the said material towards the inclined surface of the settling chamber, and means for returning the settling material to the mixing chamber.

1,415,315. GRATER. ATTILIO CONTE, Buenos Aires, Argentina. Filed Aug. 4, 1921. Serial No. 489,801. 3 Claims. (Cl. 146—15.)



1. A device of the class described comprising in combination, a supporting element, a separate element having a grating surface secured to the supporting element and projecting outwardly therefrom, a member pivoted to one of said elements and movable relatively thereto and constituting in one position a receptacle for the grated material and in a second position adapted to be folded against said supporting element to constitute a protective cover for the grating element.

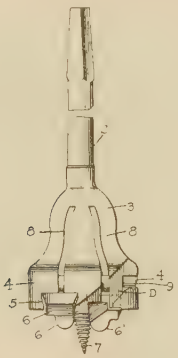
1,415,316. GARMENT-HANGER BRACKET. CHARLES B. CORBIN, Grand Rapids, Mich. Filed May 27, 1921. Serial No. 473,188. 5 Claims. (Cl. 211—16.)



1. In a garment hanger bracket, a channeled supporting bar secured in a clothes cabinet, a longitudinally extensible

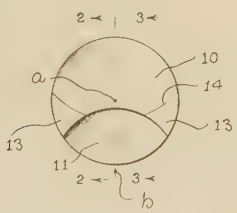
bar mounted in said supporting bar, tracks mounted below, supported by and longitudinally movable upon the supporting bar, the front end of said track supported by and longitudinally movable with the extensible bar, a second bar mounted in the first extensible bar and longitudinally extensible therefrom, a garment holder bar having one end mounted so this bar will be made to move longitudinally with the second extensible bar, and the other end mounted to be supported by and to travel longitudinally upon the tracks, and a handle connected at one end with the end of the second extensible bar, and connected near its center with one end of the garment hanger bar so the garment hanger bar will be made to move with the movements of the extensible bars.

1,415,317. EXPANSIBLE BIT. JOHN CRAWFORD and FREDERICK A. WEAVER, Denver, Colo. Filed May 12, 1920. Serial No. 380,875. 10 Claims. (Cl. 145—127.)



1. A bit comprising a head, having a flat end face and a plurality of cutters adjustably mounted in the flat end face of said head, said cutters having their long axes inclined relative to the end face of the head and their cutting edges inclined downward from said face to the outer end of the cutter.

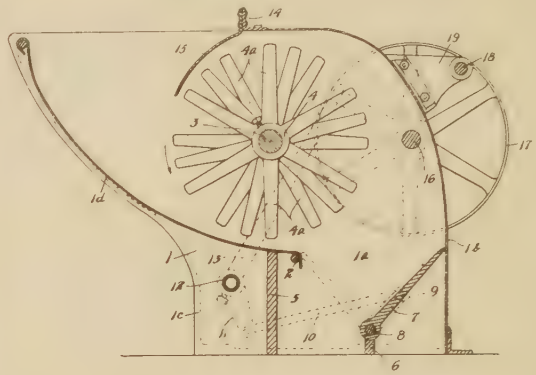
1,415,318. MULTIFOCAL OPHTHALMIC LENS. ANDREW JAY CROSS, New York, N. Y. Filed Jan. 21, 1922. Serial No. 530,744. 4 Claims. (Cl. 88—54.)



1. As an improved article of manufacture, a trifocal lens having near and distance visual fields arranged one above the other, and intermediate visual fields at opposite edge portions and partly between the near and distance visual fields, the intermediate fields having an approximately common optical center which is not common to the other visual fields of the lens.

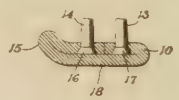
1,415,319. FEEDING DEVICE. EMIL R. DRAVER, Richmond, Ind., assignor to B. F. Gump Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 1, 1921. Serial No. 519,262. 6 Claims. (Cl. 83—44.)

1. A mill feeder having in combination, a casing having an inlet chamber with a downwardly and inwardly curved bottom, terminating with an abrupt inner edge, a rotatable feeding member in said casing comprising a shaft extending therethrough substantially vertically alined with said edge, a plurality of short hub members secured to said shaft, each having a plurality of radially extending



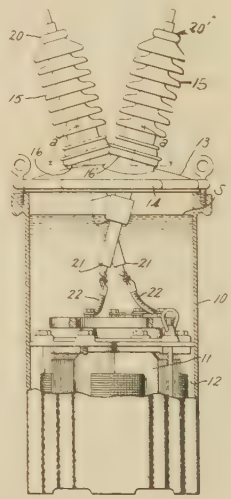
arms thereon, the ends of which pass in close proximity to said bottom, and means for rotating said shaft to move said arms downwardly through said inlet chamber towards the said edge.

1,415,320. CONTACT FINGER AND METHOD OF MAKING THE SAME. THOMAS E. DROHAN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 17, 1920. Serial No. 431,522. 8 Claims. (Cl. 29—155.5)



1. A contact member formed of a strip of metal having a pin passing through a portion thereof, the portions of the strip being folded onto each other.

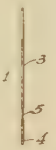
1,415,321. ELECTRICAL APPARATUS. EUGENE D. EBY, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed Oct. 23, 1919. Serial No. 332,618. 3 Claims. (Cl. 175—361.)



2. In oil submerged electrical apparatus, the combination with a tank having a cover, of high voltage bushings mounted in said cover at a distance less than the per-

missible electrical clearance between the exposed ends of the conductors of said bushings, said bushings having their axes reversely inclined on opposite sides of the cover whereby both their ends diverge sufficiently to provide the necessary electrical clearances.

1,415,322. KNITTING-MACHINE NEEDLE. JOHN C. EGLY, Philadelphia, Pa. Filed Mar. 13, 1920. Serial No. 365,412. 2 Claims. (Cl. 66—5.)



1. A knitting machine needle having a flexible portion in proximity to its butt formed by removing a portion of the wall on opposite sides of the needle and bent at the flexible portion to give the proper friction when in use in a needle cylinder.

1,415,323. MANUFACTURE OF ARSENIC ACID. CARLETON ELLIS and VERNON T. STEWART, Montclair, N. J. Filed May 21, 1921. Serial No. 471,436. 10 Claims. (Cl. 23—1.)

2. The process of making arsenic acid which comprises reacting on a mixture of white arsenic and a slightly lesser amount of water with chlorine gas, in forming a solution of the white arsenic and in continuing the introduction of chlorine to completely oxidize the material to arsenic acid.

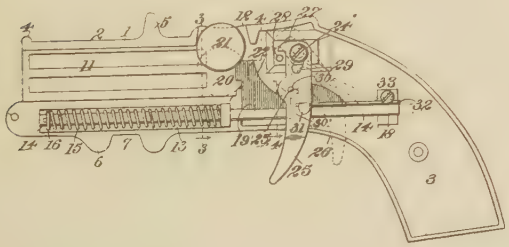
1,415,324. PROCESS OF RENDERING CONCRETE RESISTANT TO WATERS CHARGED WITH SOLUBLE COMPOUNDS AND PRODUCT THEREOF. BERNARD F. ERDAHL, Duluth, Minn. Filed Sept. 30, 1920. Serial No. 413,931. 23 Claims. (Cl. 106—24.)

10. As a new product, concrete having the capillaries thereof coated with a metal-alginate-film.

1,415,325. ICE MANUFACTURE. RIDSDALE ELLIS, Oak Park, Ill. Filed Feb. 14, 1919. Serial No. 277,095. 4 Claims. (Cl. 62—172.)

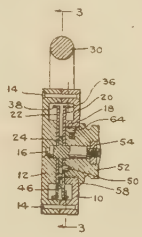
1. The process of making artificial ice which includes the addition to the water of readily adsorbed material to inhibit the freezing of air bubbles into the ice and then freezing the water so treated.

1,415,326. SELF-COCKING PISTOL. EDMUND C. FEY, San Francisco, Calif. Filed June 21, 1921. Serial No. 479,179. 2 Claims. (Cl. 124—12.)



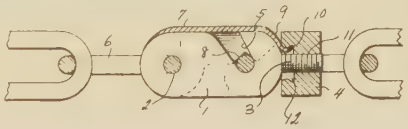
1. A pistol including a body formed with a barrel and a hand grip portion, said body provided with a projectile discharge opening disposed longitudinally of the barrel and a receiving opening communicating with the rear of the discharge opening, a spring actuated projectile impeller within the body, a trigger mounted at its upper end to pivot on a variable fulcrum, a curved shoulder on said projectile impeller, a pin on said trigger for engaging said shoulder on the manual rearward movement of the trigger to first move the impeller rearwardly and then release the same to shoot the projectile from the barrel, and a spring for moving the trigger forwardly on the release of manual pressure therefrom for a succeeding engagement of the pin with the shoulder.

1,415,327. PERMUTATION PADLOCK. PETER J. FONOS, New Richmond, Wis. Filed Jan. 3, 1921. Serial No. 434,533. 4 Claims. (Cl. 70—112.)



1. A permutation padlock comprising a casing, a shackle mounted upon said casing, a forwardly extending post secured to the back of said casing, tumblers rotatably mounted on said post, means on said tumblers for cooperation with the locking end of said shackle, a knob rotatively mounted upon the forward portion of said post, means for connecting said knob to the front tumbler, and means which permits said connection to be shifted to change the combination when the lock is in unlocked condition.

1,415,328. ANTISKID-CHAIN HOOK. ALFRED E. FORSETH, Hardwick, Minn. Filed Aug. 20, 1921. Serial No. 493,945. 2 Claims. (Cl. 24—241.)

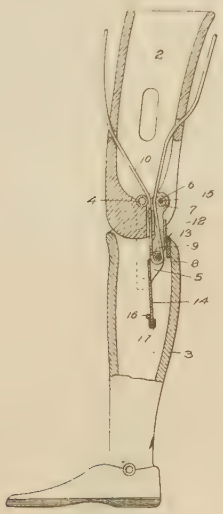


1. An anti-skid chain hook comprising a body having a link receiving notch therein, a longitudinal threaded extension on the body, a notched keeper pivoted upon the body and adapted to hold a link within the notch, a curved spring tongue on the free end of the keeper, and a nut threaded on the extension and having one face formed with an under cut groove conformingly engaging upon said tongue.

1,415,329. BACK CHECK AND CONTROLLER FOR ARTIFICIAL LEGS. ADAM FORSTER, Pittsburgh, Pa., assignor of one-half to James J. Mount, Pittsburgh, Pa. Filed Aug. 1, 1921. Serial No. 488,995. 4 Claims. (Cl. 3—11.)

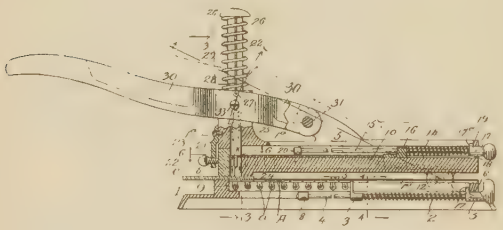
3. The combination of a thigh-section and a leg-section pivotally connected together, a back check sus-

pended from the said thigh-section extending down into the leg-section and adapted to be bear against the rear of the said leg-section, sheaves carried by the said



back-check, and a suspender loop passing around said sheaves and adapted to pass over and to be supported on the shoulder of the wearer.

1,415,330. MACHINE FOR SETTING SNAP FASTENERS. ADOLPH FRANKEL, New York, N. Y. Filed Mar. 18, 1921. Serial No. 453,303. 7 Claims. (Cl. 1—3.)



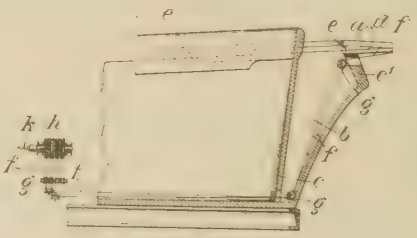
1. The combination of a base having a longitudinal guideway, means tending constantly to feed a plurality of members in the guideway, an arm over the base having a longitudinal guideway opposed to the first named guideway, means to feed members in the second named guideway, said arm and base being movable relatively one to another to receive fabric therebetween, abutments at the ends of said guideways to retain members over one another, and a plunger operative relatively to said guideways to push members from the second named guideway to members in the other guideway through the interposed fabric.

1,415,331. GRINDING WHEEL. EDWARD B. GARDNER, Beloit, Wis. Filed Apr. 8, 1920. Serial No. 372,289. 2 Claims. (Cl. 51—209.)

1. As an article of manufacture, an integral continuous circular abrasive element composed of abrasive material presenting a grinding face perpendicular to its axis of rotation, the rear face of said element having a plurality of anchoring devices embedded therein and fixedly secured thereto, which devices are adapted to

receive fastening members by which said element may be detachably mounted upon a rotating support.

1,415,332. COVERING DEVICE FOR FOLDING HOODS OF VEHICLES. CONRAD GEBHARD, Munich, Germany, assignor to The Firm "Asfag" Aktiengesellschaft, Glarus, Switzerland. Filed Dec. 1, 1920. Serial No. 427,639. 3 Claims. (Cl. 296—136.)

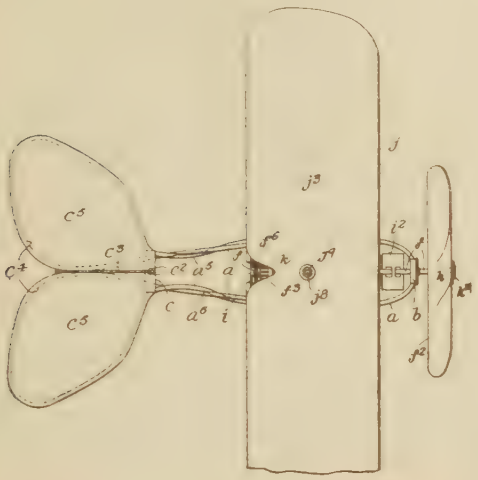


2. A covering device for folding hoods of vehicles, comprising two curved covering parts slidably supported in prismatic guides so as to allow of their being drawn out in an oblique direction to the vehicle body, two pulling members being provided for each of the two covering parts, attached to opposite points of the latter and winding around a drum so that the covering parts may be simultaneously opened or closed according to the direction in which said drum is revolved.

1,415,333. TOY FLYING MACHINE. ROSARIO GENOVESE, New York, N. Y. Filed Mar. 30, 1921. Serial No. 456,852. 3 Claims. (Cl. 244—14.)

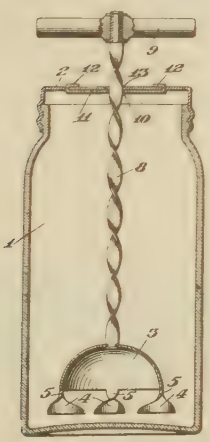
1. In a toy flying machine of the class described; a body or frame-work composed entirely of reeds or reed material, a spring power casing mounted centrally and transversely of said frame work, a propeller shaft mounted in the front portion of the body or frame-work and projecting forwardly thereof and provided with a propeller, said propeller shaft being also provided within

said casing with a gear, a lock device operating in connection with said gear, a spring shaft mounted below said gear and provided with a large gear which operates in connection therewith, a spiral spring mounted on said spring shaft and one end of which is connected



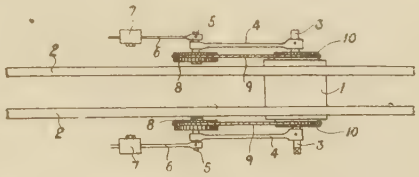
therewith and the other end with said casing, a ratchet wheel mounted on the propeller and a pawl operating in connection therewith whereby the spring may be wound up by means of the propeller and propeller shaft, and means whereby said spring may also be wound up by a key inserted through the back of said casing.

1,415,334. CHURN. MARSHALL D. GIBSON, Webster Groves, Mo. Filed Sept. 23, 1918. Serial No. 255,246. 5 Claims. (Cl. 259—144.)



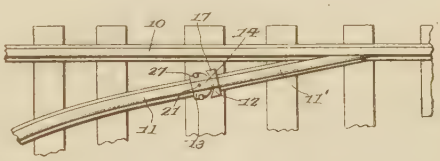
1. In a device of the character described, a dasher comprising an inverted cup having an unobstructed interior chamber and a series of blades depending from the edge thereof.

1,415,335. MECHANISM FOR CONVERTING ROTARY INTO RECIPROCATORY MOTION. RUDOLF GOLDSCHMIDT, Berlin, Germany, assignor to Det Tekniske Forsögsaktieselskab, Ordrup, Charlottenlund, Denmark, a Company of Denmark. Filed Jan. 29, 1921. Serial No. 441,097. 7 Claims. (Cl. 74—14.)



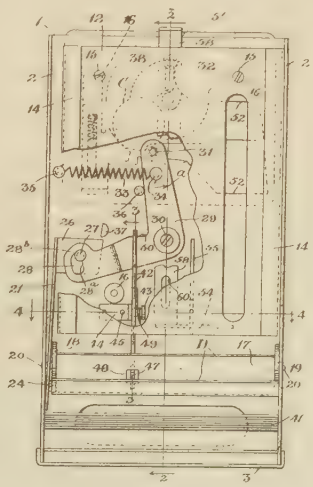
1. Mechanism for converting rotary into reciprocatory motion comprising a reciprocatory member, a jointed arm pivoted to said member and a weight mounted on the outer part of said jointed arm.

1,415,336. SWITCH-POINT CONNECTOR. GUS GOODART, Latuda, Utah. Filed Jan. 10, 1922. Serial No. 528,221. 1 Claim. (Cl. 238—165.)



A switch point connector comprising a pair of pivotally connected members having a scarf joint connection, one of the members having a vertical opening, the lower portion of which is enlarged to produce a shoulder, the opening having a channel in its side wall, means carried by the members for connection respectively with a rail and a switch point, and a pin carried by the other member rotatably disposed in the opening of the first member and having a transverse web movable through the channel of the said opening and normally engaging beneath the shoulder of the said opening.

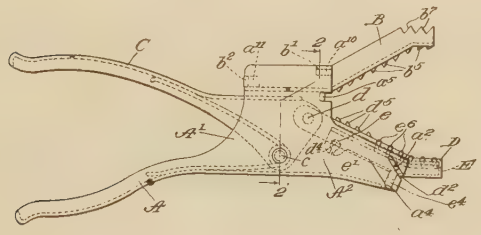
1,415,337. COIN-CONTROLLED VENDING MACHINE. ALBERT D. GROVER, New York, N. Y., assignor, by mesne assignments, to Autosales Corporation, a Corporation of New York. Filed Aug. 20, 1917. Serial No. 187,206. 8 Claims. (Cl. 211—8.)



1. In a vending machine, a casing having a magazine for containing the vendible articles, a delivery cylinder

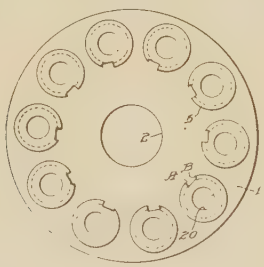
pivoted below said magazine for ejecting the bottom article, a vertically slidable bar mounted at one side of said casing and provided at its lower end with an approximately horizontal slot, a pin carried by said cylinder and engaging said slot, whereby vertical movement of said bar causes rotation of said cylinder to discharge the bottom package, a pivoted lever provided with a cam-slot at one end, a lug on said bar for engaging in said cam-slot, whereby the operation of said lever first shifts said bar transversely of the casing and then moves the same vertically to rotate said cylinder, means for manually operating said lever from the outside of said casing, and a fixed stop for preventing operative movement of said bar otherwise than by said lever, said preliminary transverse shifting of the bar causing it to avoid said stop during the subsequent vertical movement of the bar.

1,415,338. NUTCRACKER. AUGUST C. GUHL, Chicago, Ill. Filed Aug. 8, 1921. Serial No. 490,450. 5 Claims. (Cl. 146—3.)



1. In a nut cracker or the like, in combination with a handle member having a jaw at the end opposite the handle; a lever handle member fulcrumed on the first mentioned handle member; a second jaw member pivotally connected with the lever handle member for reciprocation of its point of pivotal connection in a path making an acute angle with the first mentioned jaw, and cooperating means on the first mentioned handle member and second jaw member for guiding the end of said second jaw member remote from the lever connection in a path at a wider angle to the first mentioned jaw than said acute angle.

1,415,339. MILLING CUTTER. PETER P-G. HALL, Philadelphia, Pa. Filed Mar. 24, 1920. Serial No. 368,239. 13 Claims. (Cl. 29—105.)

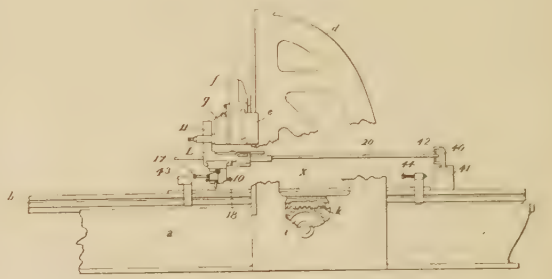


1. In a metal working mechanism, the combination of a cutter provided with a plurality of cutting elements, means for adjustably securing said cutting elements in operative cutting position, each cutting element being provided with a cutting surface and a plurality of unconnected peripheral parallel ridges each having the profile of a thread to be formed in the work.

1,415,340. MANUFACTURE OF BORNEOL. ALBIN HALLER, Paris, France, assignor to Societe Fabriques de Produits Chimiques de Thann et de Mulhouse, Mulhouse (Alsace,) France. Filed Jan. 30, 1920. Serial No. 355,217. 2 Claims. (Cl. 260—99.)

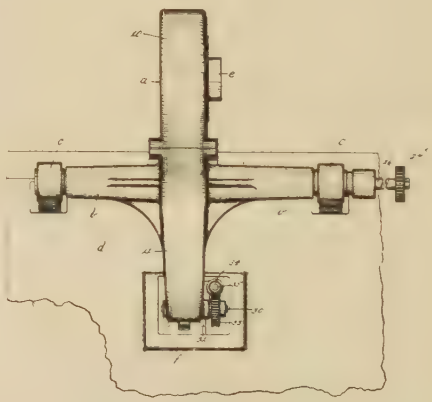
2. As a new product, di-bornyl ester of a tetrachlorophthalic acid.

1,415,341. METAL-WORKING MACHINE. BENGT M. W. HANSON, Hartford, Conn. Filed Jan. 16, 1920. Serial No. 351,799. 14 Claims. (Cl. 90—24.3.)



1. In a metal working machine, a work support, a tool support movable retcilinearly one relative to the other in one direction, means for moving said tool support back and forth a plurality of times in another direction to effect a zig-zag cut, and means for varying the extent of movement of said tool support.

1,415,342. WORK HOLDER. BENGT M. W. HANSON, Hartford, Conn. Original application filed Apr. 28, 1920, Serial No. 377,267. Divided and this application filed Dec. 9, 1920. Serial No. 429,353. 7 Claims. (Cl. 51—237.)

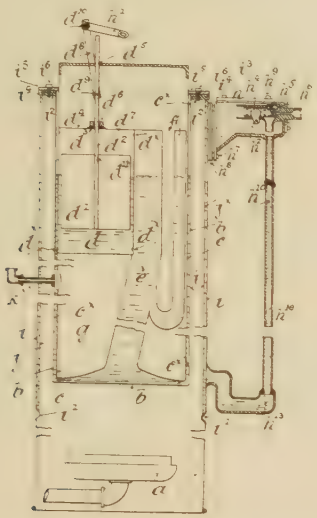


1. In a device of the character described, a work support having a head and laterally extending trunnions, bearing rings mounted in said head, a rotatable member supported by said rings, a ring gear connected to said member and having a bearing about one of said bearing rings, bearings for said trunnions, a shaft extending axially through one of said trunnions and the bearing therefor, and a gear on the inner end of said shaft through which said ring gear is driven.

1,415,343. WATER HEATER. HAROLD HARGREAVES, Burnley, England. Filed July 29, 1920. Serial No. 399,659. 9 Claims. (Cl. 126—344.)

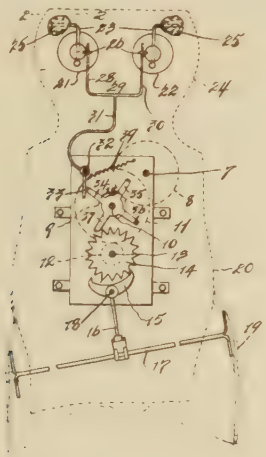
1. In a water heater, a heating device, a chamber wherein the water is boiled, and a second independent chamber

wherein the boiled water is collected, the boiling water being forced by steam pressure from the boiling chamber



to the second independent collecting chamber, and automatic means for feeding water to the boiling chamber.

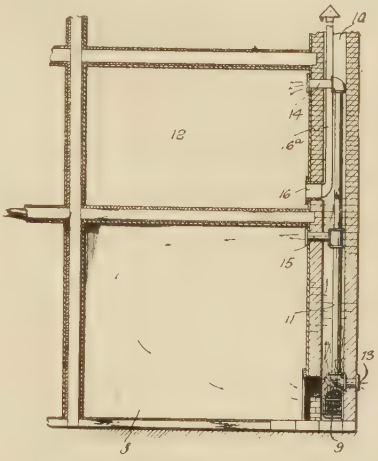
1,415,344. MECHANICAL DOLL. SAMUEL HASKELL, Brooklyn, N. Y. Filed Dec. 31, 1921. Serial No. 526,274. 4 Claims. (Cl. 46—40.)



1. In a mechanical toy, a body member, a flexible skirt carried thereby, movable eyes also carried by the body member, a motor mechanism, a vibratory arm adjacent the motor mechanism, means carried by the arm to operate said eyes, means actuated by the motor to vibrate said arm, and means actuated by the motor to vibrate said skirt.

1,415,345. HEATING APPARATUS. MARVIN PEARCE HATCHETT, Durant, Okla. Filed Mar. 23, 1920. Serial No. 368,008. 1 Claim. (Cl. 126—121.)

A heating apparatus comprising in combination with an open grate and flue thereof, a heating pipe disposed within the flue adjacent the back wall thereof and having its lower end leading through a wall of the building directly to the external atmosphere, an elbow at the lower end immediately above the grate, oppositely extending lateral outlet pipes leading from said heating pipe into the extreme upper portions of the rooms to be heated adjacent to the ceiling thereof, and a ventilator pipe

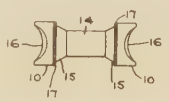


leading into and along the flue from the lower portion of the room above the one in which the grate is located, said ventilator pipe being separate from the flue and of smaller diameter than the heating pipe.

1,415,346. TREATMENT OF SLATE. CARLE R. HAYWARD, Quincy, and HENRY M. SCHLEICHER, Boston, Mass., assignors to American Metal Company, Ltd., New York, N. Y., a Corporation of New York. Filed Mar. 4, 1920. Serial No. 363,240. 4 Claims. (Cl. 23—13.)

1. The method of treating potassiferous slate for the recovery of potassium and aluminum therefrom, which comprises treating the slate with sulfuric acid at an elevated temperature, leaching out the soluble sulfates, and recovering potassium alum from the solution by crystallization.

1,415,347. MOUTH PROP. JAY A. HEIDBRINK, Minneapolis, Minn. Filed Mar. 22, 1920. Serial No. 367,901. 5 Claims. (Cl. 128—12.)

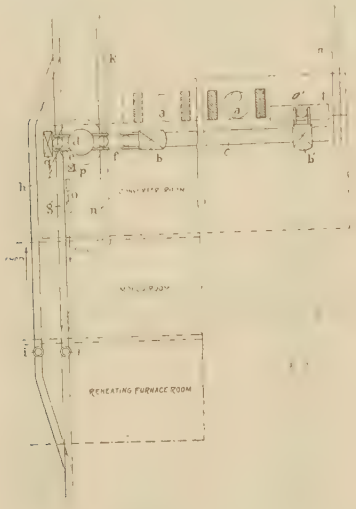


1. A mouth prop comprising two end members, shank portions integral with said end members, and a sleeve within which said shank portions are held.

1,415,348. CASTING APPARATUS. HUBERT HERMANNS, Berlin-Pankow, Germany. Filed Apr. 30, 1919. Serial No. 293,889. 2 Claims. (Cl. 22—64.)

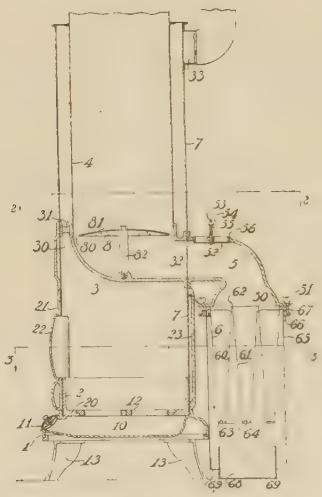
1. In apparatus of the character described, the combination of a melting furnace, a casting device, means for transferring ladles from said furnace to said casting device, a mold carrier and means for moving molds on said carrier to and from said casting device, a slag

receiver movable to and from said casting device, and means forming part of said casting device for positioning



ladles selectively either over said mold carrier or over said slag receiver.

1,415,349. STOVE. AUGUST HOLMQUIST, Monroe, Wash. Filed Oct. 13, 1921. Serial No. 507,455. 3 Claims. (Cl. 126—67.)



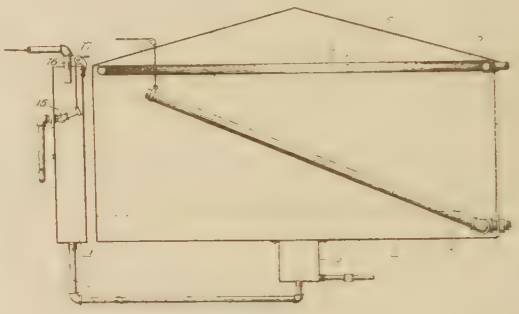
1. A stove comprising a vertical cylindrical shell, a firebox at the lower end of said shell, an inverted dome over the firebox and of less diameter than said shell to provide an annular gas flue, said dome having an air supply flue extending horizontally to without the shell, a stem extending centrally upward from said dome and a perforated air distributer plate carried by the upper end of said stem and of smaller diameter than the dome to leave an annular air passage about it.

1,415,350. COMBINED HORN AND RETURN BALL. JOHN J. HOPPS, Lawton, Okla., and CARL W. HOPPS, Westfield, N. J. Filed June 3, 1920. Serial No. 386,342. 3 Claims. (Cl. 46—46.)

1. In a device of the class described, a receiver of hollow tapered form provided interiorly near its major end with an abutment, a ball, and an elastic element connected with the ball and extending into the receiver and

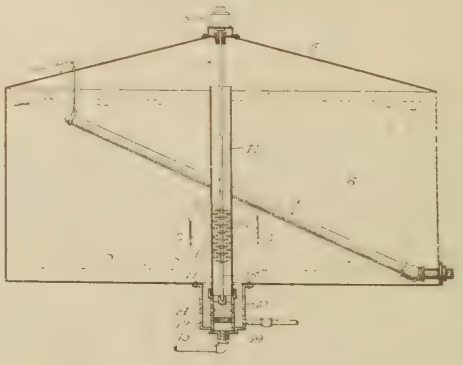
connected therewith inwardly of the abutment, the receiver between its said end and the said abutment being formed with an outwardly circumferentially bulged bell.

1,415,351. PREVENTION OF EVAPORATION OF STORED LIQUIDS. FRANK A. HOWARD and CLARENCE I. ROBINSON, Westfield, and JAMES M. JENNINGS, Elizabeth, N. J., assignors to Standard Oil Company, Bayonne, N. J., a Corporation of New Jersey. Filed Apr. 12, 1920. Serial No. 373,454. 15 Claims. (Cl. 23—11.)



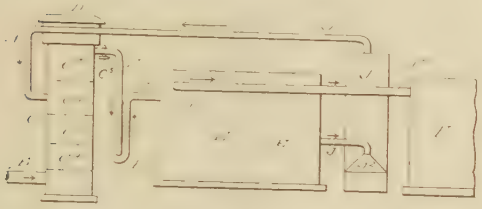
1. The method of preventing the evaporation of liquids confined in a vented storage container, which consists in maintaining on the surface of the liquid a layer of permanent foam.

1,415,352. PREVENTION OF EVAPORATION. FRANK A. HOWARD, Westfield, and JAMES M. JENNINGS, Elizabeth, N. J., assignors to Standard Oil Company, Bayonne, N. J., a Corporation of New Jersey. Filed Apr. 12, 1920. Serial No. 373,455. 16 Claims. (Cl. 23—11.)



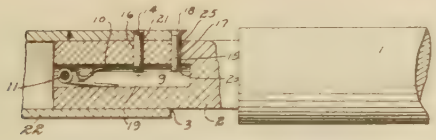
1. The method of preventing the evaporation of liquids confined in suitable storage containers, which consists in maintaining thereupon a layer of foam, thereby retaining the liquid in substantially its original state.

1,415,353. SULPHURIC-ACID MANUFACTURE. GEORGE F. HURT, Atlanta, Ga., assignor, by mesne assignments, to Joel Hurt, Atlanta, Ga. Filed May 9, 1919. Serial No. 295,943. 3 Claims. (Cl. 23—1.)



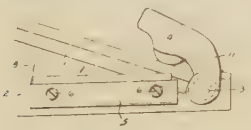
2. The method of sulphuric acid manufacture comprising passing gases from the Glover tower through a chamber and thence back into an intermediate part of the Glover tower for recirculation.

1,415,354. LOCK FOR MOVABLE PARTS. ISIDOR M. JACOBS, Kansas City, and WILLIAM CRAMER, St. Louis, Mo., assignors to Truck, Tractor, and Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 5, 1920. Serial No. 371,455. 5 Claims. (Cl. 287—119.)



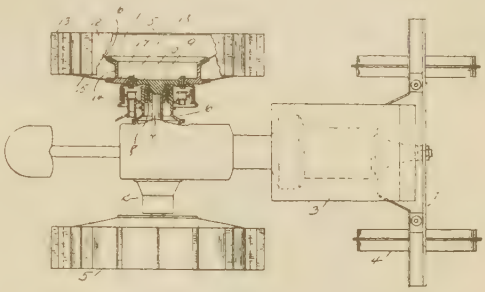
1. The combination of hollow members telescoping each other, the inner one being provided with a longitudinal bore and a lateral bore communncating with the longitudinal bore, a spring located in one of the said bores, a dog slidable in the remaining bore actuated by the said spring and adapted to lock the said members together, and another dog adapted to actuate the said spring for releasing the said first-mentioned dog.

1,415,355. BELT CUTTER. ISIDOR M. JACOBS, Kansas City, and WILLIAM CRAMER, St. Louis, Mo., assignors to Truck, Tractor, and Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Dec. 13, 1920. Serial No. 430,281. 3 Claims. (Cl. 164—40.)



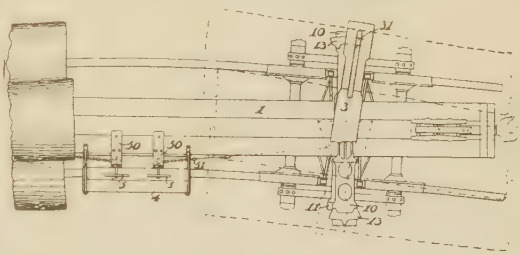
1. The combination of an anvil, a hammer, a shaft to which the said hammer is pivoted, and a knife pivoted to the said shaft, the said shaft so extending beyond the edge of the said anvil as to locate the pivoting of the said knife thereto underneath the said hammer when the same is descending toward operative position.

1,415,356. TRACTOR. JOSEPH JANDASEK, Detroit, Mich., assignor to Paige-Detroit Motor Car Company, Detroit Mich., a Corporation of Michigan. Filed Nov. 14, 1918. Serial No. 262,442. 4 Claims. (Cl. 301—128.



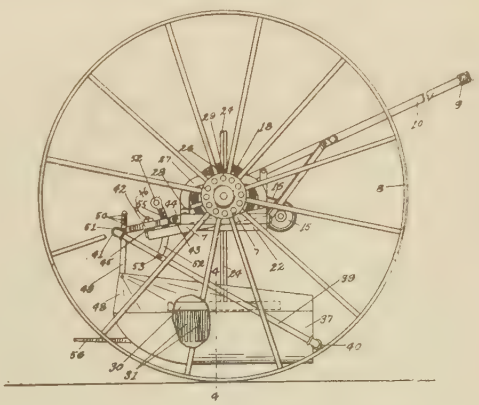
1. In a motor vehicle, the combination with an axle, and a wheel mounted on said axle, of an axle housing, and a reversible bearing container between said axle and housing.

1,415,357. PIVOTED-BUNK LOGGING CAR. HERBERT C. JARVIS, Portland, Oreg., assignor to Pacific Car & Foundry Co., Seattle, Wash., a Corporation of Washington. Filed Dec. 31, 1920. Serial No. 434,236. 6 Claims. (Cl. 105—4.)



2. A car having a bogie truck under each end, a body structure connecting the trucks, bolsters beneath the car body and pivotally connected with each truck and a load carrying bunk carried by and above each end of the car body and centrally pivoted to swing horizontally.

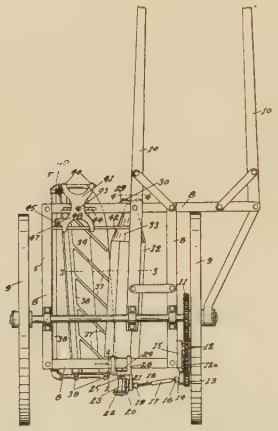
1,415,358. BUG EXTERMINATOR. WALTER A. JOHNSON, Rochester, Minn., assignor to Pioneer Manufacturing Company, Albert Lea, Minn., a Corporation of Minnesota. Filed Sept. 28, 1920. Serial No. 413,405. 2 Claims. (Cl. 43—142.)



1. A machine of the class described consisting of a frame mounted on wheels, two adjusting members slidably

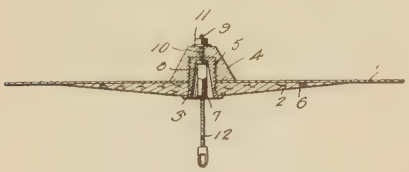
secured one on each side of the front part of the frame on which they are transversely adjustable, two longitudinally positioned receiving pans positioned under the frame, inclined hangers pivotally connected at their upper ends to said adjusting members and adapted to support the rear ends of said pans with their lower rear ends, means for adjusting the inclination of said hangers, and means for adjustably suspending the front ends of said pans, a rapping frame rotatably mounted above the space between the two pans and means for actuating the same.

1,415,359. POTATO-BUG EXTERMINATOR. WALTER A. JOHNSON, Rochester, Minn., assignor to Pioneer Manufacturing Company, Albert Lea, Minn., a Corporation of Minnesota. Filed Nov. 29, 1920. Serial No. 427,099. 4 Claims. (Cl. 43—142.)



1. A machine of the class described consisting of a suitable frame supported on wheels, a receiving pan suspended under one side of the frame, a multilateral drum journaled to rotate in contiguous relation to the pan, and operative connection between said drum and one of said wheels, said drum being conical at its forward end.

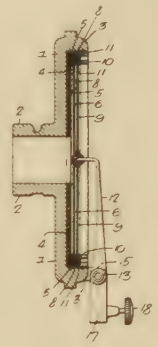
1,415,360. DIAPHRAGM ATTACHMENT. JOSEPH E. JONES, Waltham, Mass. Filed June 18, 1920. Serial No. 389,927. 2 Claims. (Cl. 274—29.)



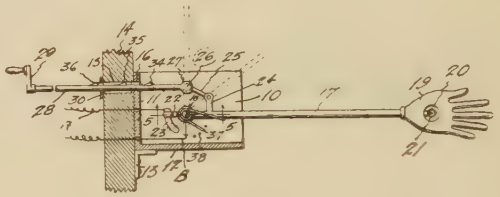
1. A diaphragm attachment comprising a diaphragm disc, a threaded plug extending through said disc a cone carried by said plug, a cord, a shank engaging said cord and fitting within said plug, a disc engaging flange clamping said disc in a set position, and means connected to said cord engaging shank and engaging said cone for locking said cone upon said plug.

1,415,361. REPRODUCER. MARTIN JONES, Philadelphia, Pa., assignor of one-half to Joseph S. MacLaughlin, Philadelphia, Pa. Filed June 19, 1917. Serial No. 175,628. 1 Claim. (Cl. 274—27.)

The combination in a sound box of a body having a cylindrical cavity closed at one end; a main diaphragm mounted across said cavity; a stylus lever attached to said diaphragm; an auxiliary diaphragm in the form of a relatively thin light disc of vulcanized fibre less in diameter than the cavity of the sound box and having opposite edge projections; washers engaging said projections and supporting said latter disc in the space between the main diaphragm and the closed end of the cavity; and means for holding said washers and diaphragms in position in the body.



1,415,362. TRAFFIC SIGNAL. THEODORIC JONES, Dallas, Tex. Filed June 18, 1921. Serial No. 478,533. 5 Claims. (Cl. 116—54.)



1. In a traffic signal, a support adapted for attachment to an automobile, a signal arm pivoted to said support to swing in a vertical arc, an actuating bar pivotally and rotatively connected with the arm, and fastening means actuated when the member is rotated for holding said member against outward displacement, and maintaining the signal arm in position.

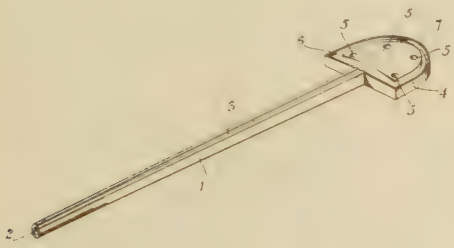
1,415,363. METHOD FOR THE EMULSIFICATION OF RESIN SOAP IN WATER. OLIVER KAMM, Holyoke, Mass., assignor to American Writing Paper Company, Holyoke, Mass., a Corporation of New Jersey. Filed Apr. 23, 1919. Serial No. 292,086. 3 Claims. (Cl. 134—21.)

1. Method of preparing resin size-in-water emulsions from resin size containing free resin, characterized thereby, that the size is incorporated with water in the proportion required to yield at the operating temperature a practically clear size-in-water emulsion, said emulsion stable at approximately the boiling point, and capable of being indefinitely diluted by introduction in a heated state into additional water.

1,415,364. GAME OF SKILL. JOSÉ KECKEIS, Portland, Oreg. Filed Jan. 22, 1921. Serial No. 439,120. 3 Claims. (Cl. 46—61.)

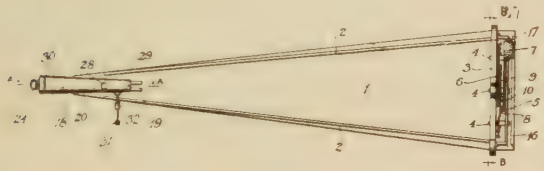
1. In a game of skill, a hollow handle, a groove in the handle, a flat body at the end of the handle, a plurality of apertures in the upper surface of the flat body, the groove in the handle leading onto the upper surface of the flat body, a groove encircling said flat body in the upper

surface near the edges, tunnels in the flat body for the apertures and the groove, said tunnels intersecting and



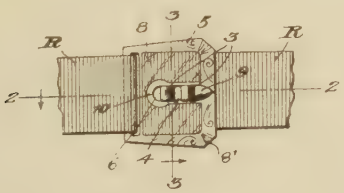
leading to the hollow handle, whereby a ball rolling from the groove in the handle onto the flat body will return to the open end of the hollow handle.

1,415,365. TOY SHOOTING GALLERY. JOSÉ KECKEIS, Portland, Oreg. Filed Jan. 28, 1921. Serial No. 440,596. 3 Claims. (Cl. 46—62.)



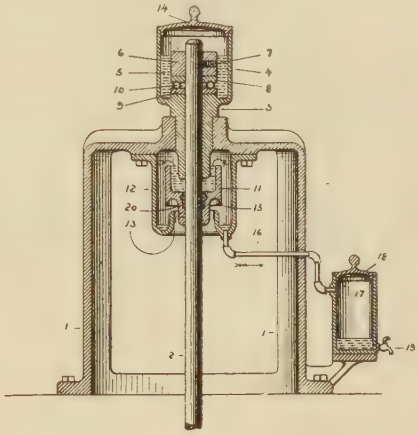
1. In a toy shooting gallery, the combination of a triangular field, a target wall at one side of the field, push buttons near the bottom of the target wall, a gun pivotally mounted in a corner of the field opposite the target wall, said gun comprising a slotted metal plate resting on the field, a barrel having the lower surface flattened and attached to the metal plate, a bore in the barrel, said slotted metal plate forming the lower wall for the bore and serving as runway for the ball, a spring piston within the bore, a handle extending rearwardly of the piston and projecting outside the bore, a nose on the handle inside the bore, a pin traversing the bore and adapted to engage the nose, and a trigger to disengage the nose from the pin.

1,415,366. RIBBON BRACELET. RUFUS KING, Plainville, Mass., assignor to Bugbee & Niles Company, North Attleboro, Mass. Filed Nov. 1, 1921. Serial No. 512,160. 4 Claims. (Cl. 24—208.)



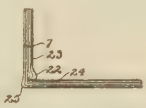
1. In a ribbon bracelet clasp, a female member formed of a flat plate having a slot and having end walls and having a part extending beyond its inner end to simulate the appearance of the free end of a buckle tongue, and a male member having a pair of clasp elements thereon formed to be snapped into engagement with said end walls of the slot and to occupy the latter to create the appearance of the body of the buckle tongue, the female member being formed to simulate the appearance of a buckle frame and a part of the ribbon.

1,415,367. SHAFT-LUBRICATING SYSTEM. FERDINAND W. KROGH, San Francisco, Calif.; Mary L. Krogh, Fannie J. Clarke, C. A. Krogh, and Oscar Poulsen, being legatees by court order of distribution of the estate of said Ferdinand W. Krogh, deceased, assignors to Krogh Pump and Machinery Company, San Francisco, Calif., a Corporation of California. Filed May 23, 1918. Serial No. 236,243. 3 Claims. (Cl. 64—56.)



1. In combination with a vertical suspended rotary shaft and its bearing, a lubricant supply tank on said bearing, a supporting block within said supply tank for said shaft, a receiving cup secured to said shaft below said bearing and adapted to receive waste lubricant therefrom, an annular fixed cup surrounding said receiving cup, provided with an upturned edge projecting upwardly below said receiving cup and adapted to receive overflow waste lubricant from said receiving cup.

1,415,368. BOX JOINT. BERTHOLD A. LANGE, St. Louis, Mo. Original application filed May 24, 1920, Serial No. 383,740. Divided and this application filed Aug. 2, 1920. Serial No. 400,625. 2 Claims. (Cl. 217—2.)

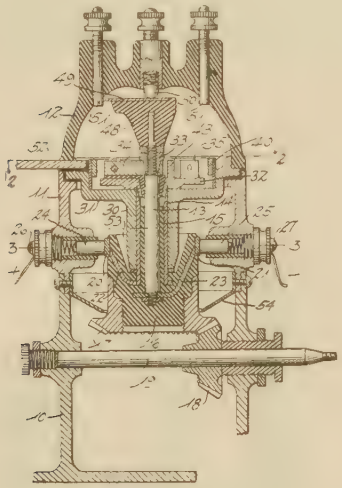


1. In a device of the character described, a box corner formed along creased lines, a bracing portion formed on the inner side of said corner from the excess paste-board resulting from the forming of said corners.

1,415,369. ELECTRIC-CURRENT MAKING, BREAKING, AND REVERSING DEVICE. JOSEPH H. LEHMAN, Hasbrouck Heights, N. J. Filed Oct. 30, 1917. Serial No. 199,242. 20 Claims. (Cl. 200—20.)

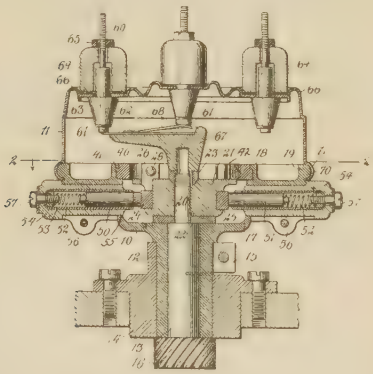
1. A timer including a rotatable member, a pair of semi-cylindrical plates carried thereby and insulated from each other and arranged in succession in the same annular path, a pair of diametrically opposed, normally stationary brushes engaging with said plates in succession during the rotation of said member and adapted to be connected to the opposite poles of a source of electrical energy whereby the polarity of said plates is reversed

twice during each rotation of said member, and make-and-break device, and means for effecting a relative movement



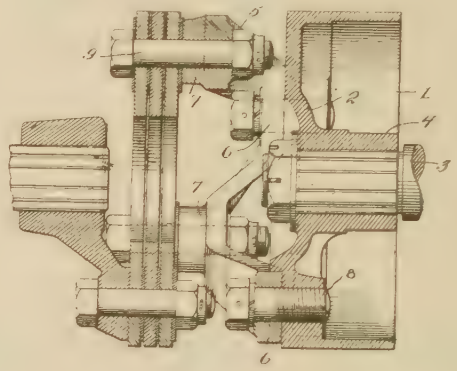
of the parts thereof to make and break a circuit a predetermined number of times during each rotation of said member.

1,415,370. CIRCUIT CONTROLLER FOR IGNITION SYSTEMS. JOSEPH H. LEHMAN, Hasbrouck Heights, N. J. Filed Feb. 26, 1918. Serial No. 219,229. 20 Claims. (Cl. 200—20.)



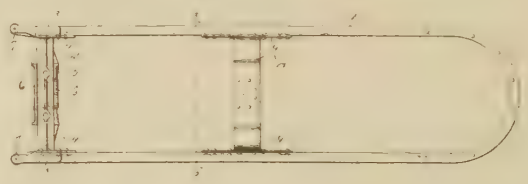
18. A timer having a head formed of insulation material, a shaft for supporting and rotating the same, a casing having a cup shaped body portion receiving said head and having a bearing sleeve within which said shaft is mounted, said casing having an outwardly extending annular flange substantially in the plane of the upper surface of said head, make-and-break contacts carried by the upper surface of said head, an annular member within said casing and having a plurality of spaced projections adjacent to the inner edge of said flange, means carried by said head for engaging with said projections in succession during the rotation of the head to move one make-and-break contact in respect to the other, and a cover member secured to said casing at the outer edge of said flange.

1,415,371. UNIVERSAL JOINT AND BRAKE-DRUM UNIT. ALFONSO M. LEONI and ARTHUR TISCHER, Philadelphia, Pa., assignors, by mesne assignments, to Steinmetz Electric Motor Car Corporation, Baltimore, Md., a Corporation of Maryland. Filed Feb. 13, 1920. Serial No. 358,551. 2 Claims. (Cl. 64—89.)



1. In a motor vehicle drive, a drive shaft, a driven shaft, a brake drum mounted on the driven shaft, a universal joint, and a spider having alternate points of connection with the brake drum and universal joint.

1,415,372. VEHICLE FRAME CONSTRUCTION. ALFONSO M. LEONI, Philadelphia, Pa., assignor, by mesne assignments, to Steinmetz Electric Motor Car Corporation, Baltimore, Md., a Corporation of Maryland. Filed Mar. 12, 1920. Serial No. 365,282. 4 Claims. (Cl. 180—86.)



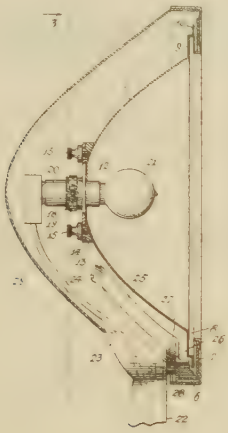
1. A frame construction for motor vehicles, comprising a main frame member of hair pin shape with the rounded end at the rear and providing a direct support for the rear axle housing, a cross bar connecting the forward ends of the main frame member, said cross bar forming a motor support and having depending portions to provide an axle support.

1,415,373. AUTOMOBILE HEADLAMP. WILLIAM F. LITTLE, Nepperhan Heights, N. Y., assignor to Mary Virginia Wines Little, Nepperhan Heights, N. Y. Filed Feb. 26, 1921. Serial No. 447,980. 6 Claims. (Cl. 240—41.)

4. A reflector for automobile head lamps having a paraboloidal section for producing a concentrated light beam around the axis of the reflector, two hyperboloidal sections arranged angularly with respect to the vertical for producing two oblique beams or bands of general illumination, both merging with the paraboloidal beam and extending downwards and outwards to illuminate the sides of the road, and a paraboloidal section supplying a concentrated light beam between the two diverging hyperboloidal beams, all of said sections having the same focus and axis, substantially as set forth.

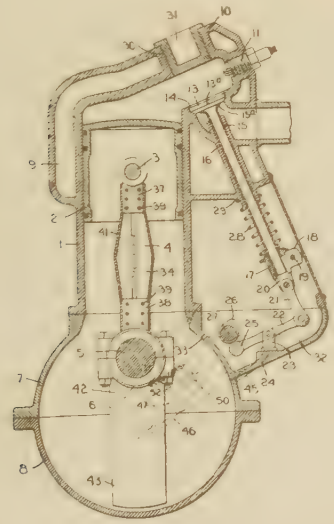
5. In an automobile head lamp the combination with a frame, a front glass and a reflector secured together, of a lamp removable from the rear and carried within the re-

flector, a plate supporting said lamp and within which the lamp is adjustable longitudinally, and means for adjust-



ing said plate vertically and horizontally, whereby the lamp will be capable of universal adjustment with respect to the reflector, substantially as set forth.

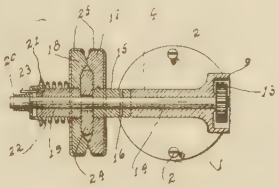
1,415,374. INTERNAL-COMBUSTION ENGINE. RALPH M. LOVEJOY, Meredith, N. H. Filed June 8, 1916. Serial No. 102,570. 3 Claims. (Cl. 123—90.)



1. An internal combustion engine comprising a combustion chamber, a port leading to said chamber having a cylindrical countersunk wall providing a recess of sufficient depth to enclose the body of the valve, a valve seat at the bottom of said cylindrical recess, a valve for said port fitting within said recess and means for actuating the valve operable to cause relatively slow initial and final movements to occur while the valve is within the countersunk portion of the valve seat and a rapid movement when removed therefrom whereby the port will be quickly opened and fully closed.

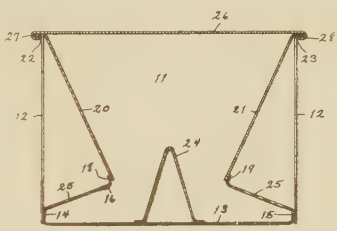
1,415,375. KNIFE SHARPENER. MELCHIOR L. LUEBBEN, Long Beach, Calif. Filed Dec. 2, 1920. Serial No. 427,788. 3 Claims. (Cl. 51—111.)

1. In a knife sharpener, the combination of a support, a main shaft mounted therein, means for rotating said shaft, a pair of co-acting abrading members carried by said shaft, and a non-abrading body of yieldable



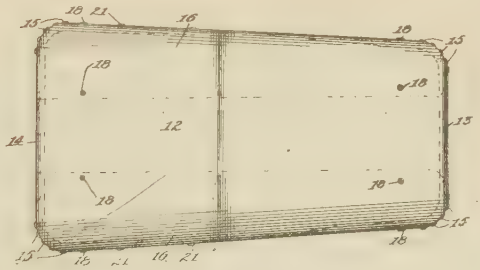
material loosely mounted upon the shaft between said abrading members.

1,415,376. CHICK FEEDER. WILLIAM A. MCCOLLOUGH, Webster City, Iowa, assignor to W. A. McCollough & Sons, Inc., Webster City, Iowa, a Corporation of Iowa. Filed Apr. 11, 1921. Serial No. 460,234. 2 Claims. (Cl. 119—52.)



1. A poultry feeder, comprising a bottom, vertical side walls rising therefrom, ledges extending inwardly and upwardly from said side walls, said ledges being formed with upturned flanges at their inner margins, and formed with feeding apertures, hopper walls fixed to and extending upwardly and outwardly from the flanges of said ledges, and end walls mounted against end portions of said bottom, side walls, ledges and hopper walls.

1,415,377. VEHICLE TOP. ALEXANDER GRANT MCGREGOR, Warren, Ariz. Filed May 18, 1920. Serial No. 382,418. 1 Claim. (Cl. 296—98.)



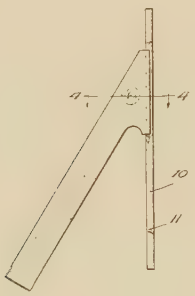
A vehicle top comprising front and back bows and intermediate bows, in combination with a flexible cover permanently attached to said front and back bows between its corner portions, but detachably secured to said bows at its corner portions, said cover comprising

a body portion to extend over the tops of the bows, and depending parts at the sides of said body portion; whereby, when the top is to be folded down, the depending side parts of said cover, when detached from the bows, may first be folded over on to the body of the cover and fastened down, and the cover then be folded back and rolled up without danger of wrinkling or injuring the same, as set forth.

1,415,378. MANUFACTURE OF BOOTS AND SHOES AND STIFFENERS THEREFOR. DAVID BAIRD MACDONALD, Leicester, England. Filed Sept. 15, 1920. Serial No. 410,406. 3 Claims. (Cl. 36—77.)

1. In the manufacture of boots and shoes where stiffeners of the kind herein referred to are used, the method of protecting an adjacent part of a boot or shoe against the action of the stiffening agent or of the spirituous medium contained in the stiffener, which consists in interposing between said part and the stiffener a protective guard or shield consisting of a water soluble colloidal body which is impervious to the solvent used in the stiffener, substantially as described.

1,415,379. TOOL HOLDER. TREVILLIE O. MARTIN, Jackson, Tenn. Filed Nov. 30, 1920. Serial No. 427,382. 1 Claim. (Cl. 29—99.)



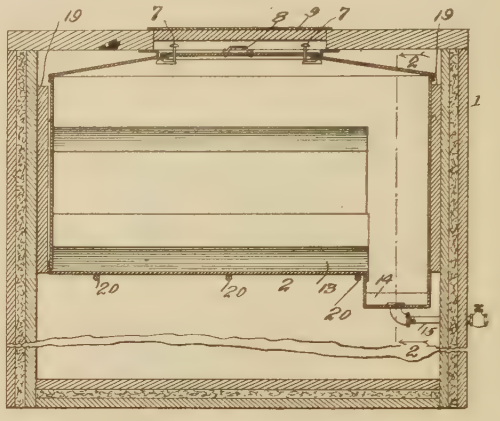
A tool holder comprising a shank provided with an obliquely disposed nose, the said holder being formed with a slot extending the entire length of the nose and for a portion of the length of the shank and dividing the nose into spaced jaw portions arranged to clamp between them a tool to be held, and clamping means for the jaws located substantially midway between the ends of the nose.

1,415,380. COMPOSITION OF MATTER FOR FIRE AND WATER PROOF PAINT. AZARIAH H. MIKESELL, Oakland, Calif., assignor, by direct and mesne assignments, of one-half to Joseph Dietrich, Oakland, Calif., and one-tenth to Charles Dietrich, San Francisco, Calif. Filed Aug. 3, 1921. Serial No. 489,569. 3 Claims. (Cl. 134—50.)

1. The composition of matter as above described, comprising casein in a borax solution in the proportion of twenty-five pounds; magnesite residue in the proportion of seventy-two and one half pounds and water in the proportion of sixty gallons.

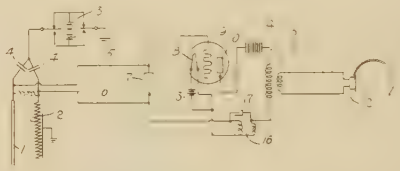
1,415,381. TANK FOR REFRIGERATORS. JOSEPH MILLER, Minneapolis, Minn. Filed Feb. 11, 1922. Serial No. 535,845. 6 Claims. (Cl. 62—69.)

1. In an apparatus of the class described, the combination of a body provided with a bottom, said bottom comprising a plurality of V-shaped troughs and a plurality of flue-structures having V-shaped tops, a drain



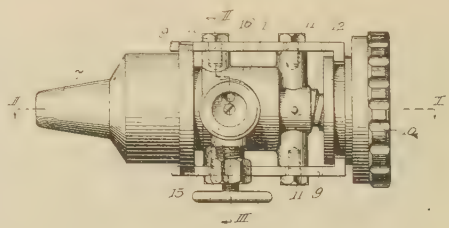
formed in said bottom, and an outlet pipe communicating with said drain.

1,415,382. AMPLIFIER. JOSEPH W. MILNOR, New York, N. Y., assignor to The Western Union Telegraph Company, New York, N. Y., a Corporation of New York. Filed Jan. 17, 1918. Serial No. 212,332. 2 Claims. (Cl. 178—88.)



1. Signal amplifying apparatus such as described, comprising an audion arranged to produce a current of oscillatory character, means for conducting signals to be amplified to the controlling circuit of the audion, and signal receiving means operated by the audion, and comprising a tuned vibrating relay arranged to vibrate in unison with the oscillations produced by the audion and to rectify the oscillatory current produced by the audion.

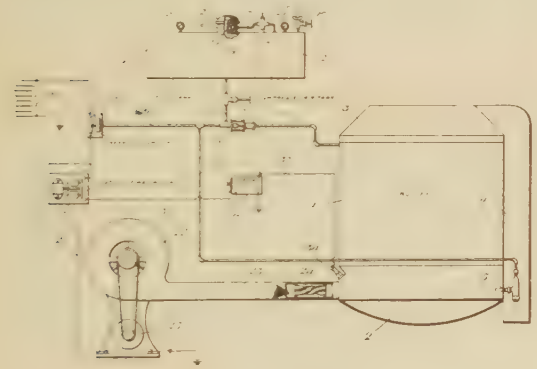
1,415,383. BURNER FOR GASEOUS AND LIQUID FUELS. HEINRICH NETTGENS, Albisrieden, near Zurich, Switzerland, assignor to Eduard Straub-Keller, Sulgen, Switzerland. Filed Feb. 3, 1922. Serial No. 533,811. 3 Claims. (Cl. 158—76.)



1. A burner for gaseous and liquid fuels, having in combination a nozzle with a bore that is funnel-shaped at one end and adapted for the passage of a medium constituting an element of a combustible, a regulating device for controlling the quantity of the medium passing through said nozzle, a second nozzle coaxially arranged to said first nozzle and adapted to be displaced

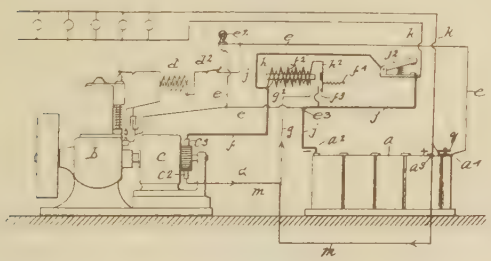
in the axial direction relatively to the former, the bore of the second nozzle and the outer wall of the first nozzle forming together an annular channel the width of which can be adjusted by said displacement of said second nozzle and the outer wall of said annular channel being so shaped that the medium passing through said channel flows in an oblique direction to the medium leaving the funnel shaped end of said first nozzle for causing an efficient mixture of said mediums, a ring wall around said first mentioned nozzle and forming an annular channel with the latter that is a continuation of the afore mentioned annular channel, means to provide for a passage of the medium from said annular channel to the bore of the first nozzle, means to admit to said annular channel a medium constituting an element of a combustible, and means to effect said displacement of the adjustable nozzle and to regulate thereby the quantity of the respective mediums supplied to said annular channel.

1,415,384. HYDROCARBON-BURNER APPARATUS. CARLETON A. ORR, Pueblo, Colo., assignor to The Baker Steam Motor Car and Manufacturing Co., Inc., Pueblo, Colo. Filed Dec. 10, 1919. Serial No. 343,887. 10 Claims. (Cl. 158—36.)



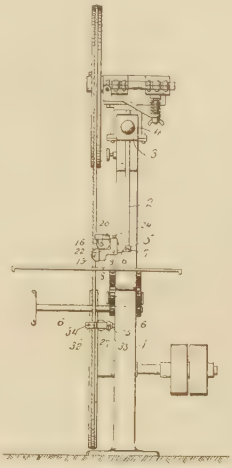
1. A hydrocarbon burner comprising a combustion chamber, and means for discharging fuel and air under pressure independently into said chamber from opposite directions toward one another so that the independent streams of fuel and air impinge against one another within said chamber.

1,415,385. GENERATING PLANT. EARL P. OSWALD, Detroit, Mich. Filed Oct. 24, 1918. Serial No. 259,463. 6 Claims. (Cl. 290—35.)



1. In an apparatus of the kind described, a storage battery, a hydrometer tube in the liquid of said battery, an armature carried by said tube and adapted to make and break an electric circuit, a signal in said circuit and a magnet adapted to attract said armature and hold it yieldingly in position to complete said circuit, whereby the signal will be energized.

1,415,386. BAND-SAW GUIDE. WILLIAM W. PADDOCK, Kansas City, Kans. Filed Jan. 12, 1920. Serial No. 350,722. 5 Claims. (Cl. 143—160.)

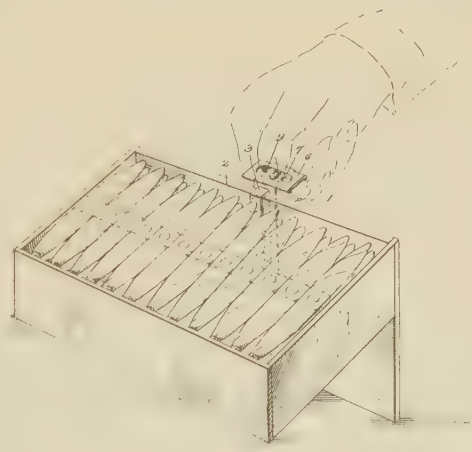


1. In a band saw guide, a support, two sleeves having one set of ends bearing against said support, two plates respectively bearing against the other set of ends of said sleeves, two bolts respectively connected to said support and respectively extending through said plates and said sleeves, the sleeves being laterally adjustable on said bolts, and two rollers respectively rotatable on said sleeves and adapted to respectively bear against opposite sides of a band saw.

1,415,387. PROCESS OF DEHYDRATING AND RECOVERING VALUES FROM SLIMES. MARGARET A. PARMETER, Denver, Colo. Filed Nov. 24, 1919. Serial No. 340,221. 5 Claims. (Cl. 75—17.)

1. A dehydrating process comprising mixing a pulverized resinous binder with a liquid containing finely divided solids in suspension and filtering said liquid.

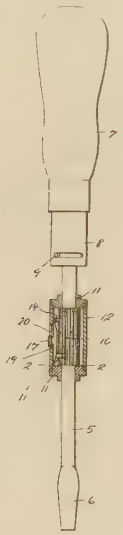
1,415,388. CIGAR-BOX-LID HOLDER. FRANK D. PELOT, Dallas, Tex., assignor to Frank D. Pelot, R. L. Thornton, and Milton F. Brown, trustees for the Holder Company, a common law trust, Dallas County, Tex. Filed July 16, 1921. Serial No. 485,230. 4 Claims. (Cl. 217—61.)



1. A box lid holder including a shank, a gripping tongue carried by the shank and extending in spaced

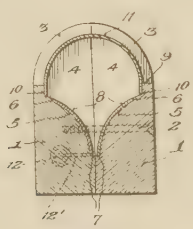
relation thereto, the shank being provided with a plate portion having a sight opening therein, and the plate portion being provided at its opposite edges with flanges struck under to support a tag beneath the said plate portion.

1,415,389. RATCHET ATTACHMENT FOR SCREW DRIVERS. WILLIAM H. PUHL, Zion City, Ill. Filed Sept. 22, 1920. Serial No. 412,032. 1 Claim. (Cl. 145—75.)



The combination with a shank of a screw driver having a handle, of an elongated gear rigidly secured to the shank, a pair of heads arranged upon opposite ends of the gear and rotatable upon the shank, a tubular casing connecting the heads enclosing the gear and having a longitudinal opening, a pair of resilient pawls arranged within the casing and secured thereto and adapted to engage the gear when depressed and tensioned to automatically move outwardly, a sliding keeper having beveled ends to engage and depress the pawls, and a headed shank carried by the keeper and operating within the longitudinal opening.

1,415,390. FIRE INDICATOR. ORREN D. PURINGTON, Providence, R. I. Filed Apr. 1, 1921. Serial No. 457,589. 2 Claims. (Cl. 200—142.)

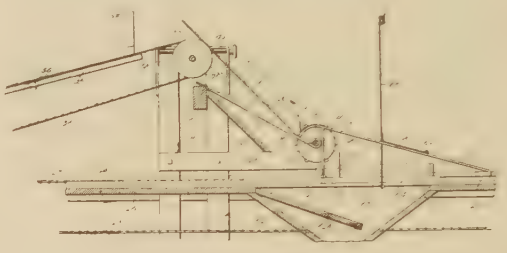


1. In a fire indicator, a casing formed of two similar parts which have their inner faces abutting, and are formed with confronting convex seats located below the tops of the outer sides of the parts said tops forming second L-shaped seats, the end walls of said parts having curved flanges which extend inwardly, screws for detachably connecting the parts, curved contact plates on said convex seats and abutting the shoulders thereof, a binding post connected to each contact plate, and a curved fuse of dome-form engaged between the ends of the parts and beneath the curved flanges thereof and engaged at their lower sides in the L-shaped seats.

1,415,391. WHITE PIGMENT. HAROLD ROBERT RAFSKY, Roxbury, Mass. Filed Mar. 29, 1916, Serial No. 87,624. Renewed June 2, 1921. Serial No. 474,529. 1 Claim. (Cl. 134—58.)

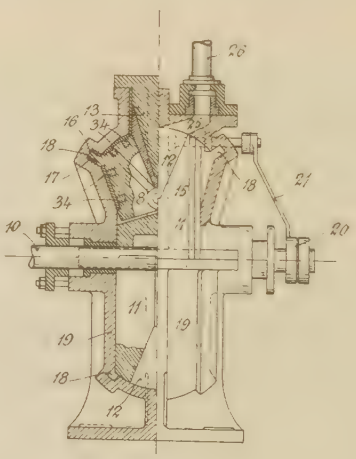
A composition of matter of very fine grain, the same consisting of the insoluble product resulting from the interaction of slaked lime containing magnesia and sodium carbonate in an aqueous medium.

1,415,392. PAN-DUMPING APPARATUS FOR CAKE AND CRACKER CONVEYERS. PETER RASMUSSEN, Denver, Colo., assignor of one-half to Stephen Knight, Denver, Colo. Filed Jan. 3, 1921. Serial No. 434,554. 13 Claims. (Cl. 214—1.)



1. In a pan dumping mechanism for pan conveyers, the combination with oppositely moving conveyers arranged one above the other, and a transferring mechanism for transferring the pans from the upper to the lower conveyer, of a pan dumping conveyer mechanism connected to and movable with said lower conveyer, and means for releasing the pans at a predetermined point, downwardly inclined members on which said pans run when released from said conveyer, a roller at the lower end of said members against which said pans strike, means on said roller for raising said pans up over it and for moving them onto the lower conveyer, whereby they are conveyed to a reloading point.

1,415,393. ROTARY ENGINE. THOR RAUGSTAD, Sandnæs, near Stavanger, Norway. Filed Aug. 26, 1921. Serial No. 495,529. 4 Claims. (Cl. 121—93.)



1. A rotary engine comprising a casing, a rotor journaled therein having a peripheral channel, a stationary abutment projecting into the later, vane blades pivoted in the channel and movable transversely through lateral

slots formed in the sides of the channel, the walls of the casing constituting guides for the blades to move the latter into and out of the channel during the movement of the rotor.

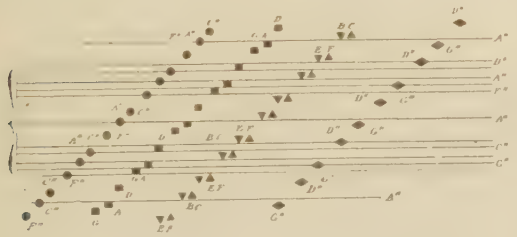
1,415,394. LOCKING DEVICE FOR MOTOR VEHICLES. ELSIE J. REDDING, Mount Holly, N. J. Filed July 28, 1920. Serial No. 399,473. 2 Claims. (Cl. 188—265.)

1. The combination with a motor vehicle having the front wheels thereof mounted to oscillate, of tire engaging means at the side of the vehicle, and means to coact with the tire engaging means for shifting the tire engaging means to coact with the tires of the front and rear wheels at said side of the vehicle for locking such wheels against rotation as well as also locking the front wheels against oscillation.

1,415,395. PROCESS OF OBTAINING MANGANESE DIOXIDE AND NITRIC ACID. CHARLES J. REED, Homestead, Calif., assignor of one-half to James G. Berryhill, San Francisco, Calif. Filed July 27, 1921. Serial No. 487,999. 4 Claims. (Cl. 23—13.)

1. The process of making manganese dioxide and nitric acid which consists in heating to a reacting temperature a mixture of manganese sulphate containing water with a metallic nitrate and thereby volatilizing nitric acid and leaving a residue containing manganese dioxide.

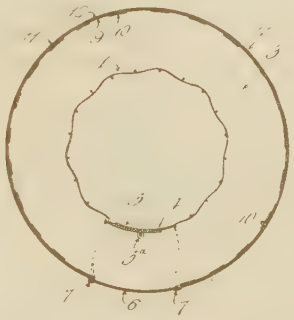
1,415,396. MUSICAL NOTATION. SIDNEY ARMOR REEVE, New Brighton, N. Y. Filed July 14, 1919. Serial No. 310,635. 2 Claims. (Cl. 283—47.)



1. A musical notation comprising a plurality of horizontal lines relatively spaced like the black keys of the pianoforte-keyboard, with the twelve half-tones of each octave indicated by noteheads of four contrasted forms, one such form being used for the white keys A, D and G natural, a second form for the white keys B, C, E and F natural, a third form for three out of the five black keyboard-keys, and the fourth form for the remaining two black keyboard-keys, substantially as described.

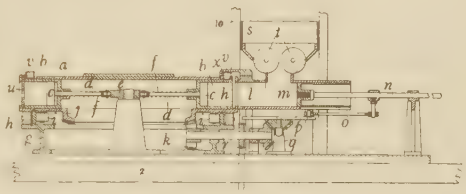
1,415,397. CHICKEN COOP. JULIA E. RISTY, Pipestone, Minn. Filed Apr. 22, 1921. Serial No. 463,455. 4 Claims. (Cl. 119—19.)

1. A chicken brooding coop comprising a substantially cylindrical housing closed at its top and having inlet and escape openings in its vertical wall adjacent the bottom thereof, and a wire cage or confining compartment for the hen arranged inside of the housing and permanently



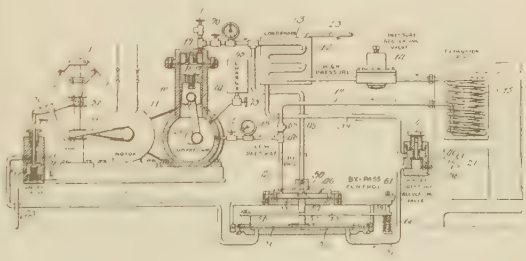
spaced from the wall of the latter to form a runway for the small chicks and to permit the latter to pass freely in and out between the wires of the cage.

1,415,398. PRESSING OF PEAT AND THE LIKE. WALLACE BRUCE JOSEPH ROBERTSON, Edgbaston, England. Filed May 14, 1921. Serial No. 469,751. 3 Claims. (Cl. 25—80.)



1. In machines for compressing peat and the like, the combination of an intermittently rotatable compression box, a plunger in the box, a fixed cam acting in one direction on the plunger for compressing and ejecting the contents of the box, a spring acting on the plunger in the opposite direction for returning the plunger, a door on the outer end of the box, and means for charging the box with the material to be compressed, substantially as described.

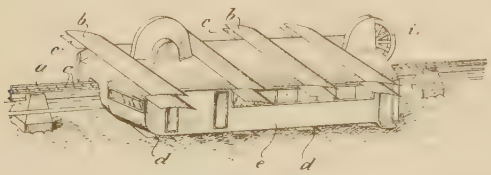
1,415,399. REFRIGERATING SYSTEM. WALTER W. ROBINSON, Beloit, Wis., assignor of one-half to Benjamin F. Lyons, Beloit, Wis. Filed July 5, 1921. Serial No. 482,459. 6 Claims. (Cl. 62—115.)



4. In a refrigerating device of the character described, the combination of a condenser, means for supplying a gas-cooling medium to the condenser, means for forcing gas under pressure through the condenser and back to the gas-forcing means in a circuit, means forming an expansion chamber forming part of said circuit, the same being beyond the condenser in the direction of the flow of the refrigerating gas, means for impeding the flow of gas through said circuit to form a high-pressure side and

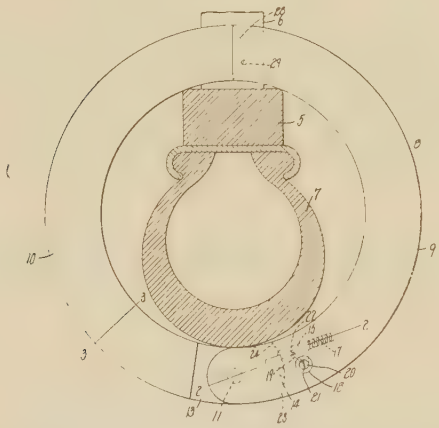
a low-pressure side therein, means for forming a by-pass between the high-pressure side and the low-pressure side of said circuit, valve means in said by-pass, means for holding said valve closed against pressure in the high-pressure side which is less than normal, and auxiliary means under the control of the cooling medium cooperating to hold said valve closed against the normal pressure in the high-pressure side.

1,415,400. MONORAIL RAILWAY WITH AEROPLANE CARS. THEODOR ROGHMANNS, Sonsbeck, Germany. Filed June 30, 1920. Serial No. 393,217. 3 Claims. (Cl. 104—23.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



2. Mono-rail railway having aeroplane cars, consisting of a carriage wtih carrying wheels, a rail with toothed-shaped means, toothed-shaped pins in one of the carrying wheels, a motor for driving the toothed wheel, a box-shaped room vertically movable on the carriage, means for limiting the lifting movement of said box-shaped room, supporting and flying planes fastened to said box-shaped room.

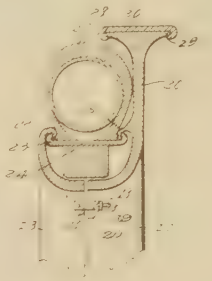
1,415,401. VEHICLE LOCK. WINGATE ROLLINS, Hyde Park, CLINTON K. SEYMOUR, Winchester, and JOHN A. SARGENT, Cambridge, Mass. Filed Jan. 16, 1920. Serial No. 351,917. 15 Claims. (Cl. 70—90.)



9. A vehicle lock having, in combination, two members hinged together and adapted to be positioned upon the rim of a vehicle wheel and means on one of said members adapted to engage the other of said members to lock said members in fixed relation to each other, comprising a segmental ratchet on one of said members and a spring actuated pawl on the other of said members adapted to engage said ratchet.

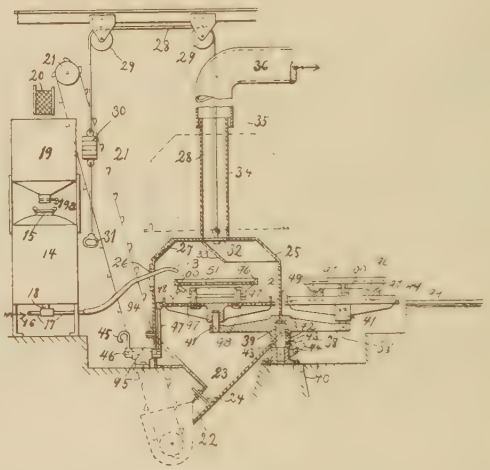
1,415,402. RIM FOR AUTOMOBILE WHEELS. ROSE ROSSBACH, Missoula, Mont. Filed Apr. 11, 1921. Serial No. 460,256. 5 Claims. (Cl. 301—39.)

5. In a supplemental rim for automobiles, approximately semi-circular sections on each side of the wheel, latches for connecting the sections on one side of the wheel together, latches for connecting the sections on the other side of the wheel together, lugs on the sections on one side of the wheel, yokes pivoted to said lugs on the sections on the opposite side of the wheel embraced by said yokes, screws threaded in the yokes bearing against the



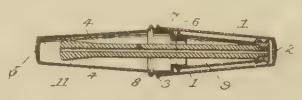
last mentioned lugs, means carried by the sections adapted to interlock with the flanges of the wheel, rim elements carried by the sections on one side of the wheel, and tires applied to the said rim sections.

1,415,403. SAND-BLAST APPARATUS. RICHARD RUEMELIN, Stillwater, Minn. Filed June 4, 1920. Serial No. 386,570. 8 Claims. (Cl. 51—15.)



3. In a sand blast apparatus, a rotary table consisting of a lower perforated member to which rotary movement is imparted, and an upper perforated member adapted to be supported by the lower member, means for locking the members together so that the upper member will not move during rotation, said upper member having supporting rollers or wheels which rest on the lower member, means for supplying and directing a blast of sand onto articles carried by the upper member, and a track beyond the lower member for said wheels to roll on in removing and replacing the upper member.

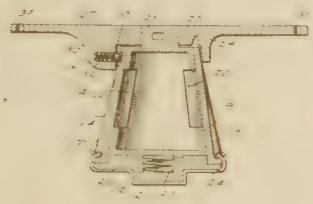
1,415,404. CIGARETTE OR CIGAR HOLDER. WILLIAM RUMBLE, Jr., East Orange, N. J.; Elsie G. Rumble, being administratrix of said William Rumble, Jr., deceased, assignor to Battin & Company, Newark. N. J., a Corporation of New Jersey. Filed Jan. 13, 1921. Serial No. 436,974. 4 Claims. (Cl. 131—10.)



4. In a device of the class described, the combination of a hollow casing element, said element having a nozzle

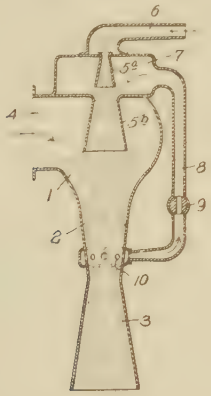
of two diameters at one end; a second casing element, the open end whereof passes onto the nozzle section of larger diameter; means for locking said elements together; and a cigarette holder comprising a head and a stem having a telescopic connection therewith, the mouth of said head being of such diameter as to pass over and to make frictional contact with the nozzle section of smaller diameter.

1,415,405. AIR-BRAKE ATTACHMENT. ARCHIE PIERCE SALE, San Antonio, Tex. Filed June 1, 1921. Serial No. 474,166. 2 Claims. (Cl. 246—170.)



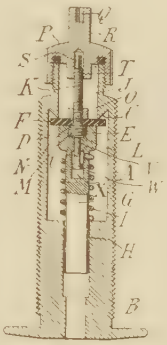
2. The combination with an air brake pipe of a railway car, of means by which said air pipe may be open to the atmosphere when the car becomes derailed, said means comprising a valve interposed in said air pipe adapted to normally permit a continuous air passage through the air pipe and when moved to a predetermined degree to open said pipe to the atmosphere, a cross member carried by the stem of said valve and adapted to operate the same, a ball and compression spring carried by said cross member, said ball being adapted to engage in a recess in the outer wall of the valve and yieldingly hold the arm in position so that the valve will be inoperative, and means connecting the outer end of said cross member to a truck of the car whereby upon the derailment of said car the valve will be operated for establishing communication with the atmosphere.

1,415,406. ELASTIC-FLUID-OPERATED EJECTOR. ARTHUR EDWIN LEIGH SCANES, Ashton-on-Mersey, England, assignor to The British Westinghouse Electric and Manufacturing Company Limited, a Company of Great Britain. Filed June 1, 1917. Serial No. 172,145. 14 Claims. (Cl. 230—13.)



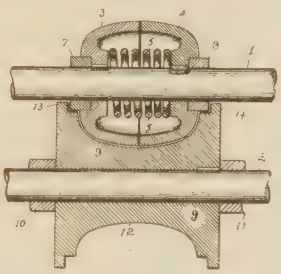
4. In an elastic fluid operated ejector, a combining or collecting chamber adapted to be connected to the device to be evacuated, a diffuser connecting with said chamber, an expansion nozzle for discharging elastic operating fluid into said combining and collecting chamber, and means for admitting variable pressure elastic fluid to said expansion nozzle at a point intermediate its ends and for varying the amount of elastic fluid so admitted in accordance with the variations in pressures at a point in said combining or collecting chamber.

1,415,407. TIRE VALVE AND THE LIKE. MAXIMILIAN CHARLES SCHWEINERT, New York, N. Y., and HENRY P. KRAFT, Ridgewood, N. J. Filed Jan. 6, 1915, Serial No. 758. Renewed Aug. 2, 1921. Serial No. 489,203. 26 Claims. (Cl. 132—12.)



1. A valve for tires or the like, comprising a shell having a valve seat and a check valve inwardly of said seat, said check valve being of larger diameter than said seat when in working position, and said check valve being adapted to assume a condition of lessened diameter sufficient to enable it to pass through said seat, and said check valve comprising a rigid body and a packing material.

1,415,408. ROLLS FOR SHEET-METAL-FORMING MACHINES. E HARRISON SCOTT, Richmond, Ind., assignor to Johnson Automobile Sheet Metal Works, Richmond, Ind., a Corporation of Indiana. Filed May 16, 1921. Serial No. 469,964. 3 Claims. (Cl. 153—54.)

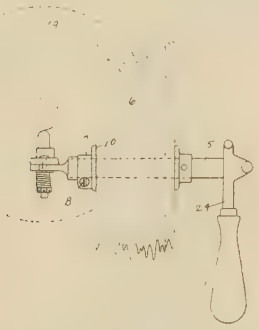


1. In combination with a shaft, a roll adapted to revolve with the shaft, a collar rotatably mounted in each end of the roll and each collar being also rotatably mounted on said shaft.

1,415,409. SPOTLIGHT CONTROL. HOWARD J. SEGUR, Portland, Oreg. Continuation of joint application Serial No. 402,727, filed Aug. 10, 1920. This application filed Mar. 31, 1921. Serial No. 457,293. 1 Claim. (Cl. 240—7.)

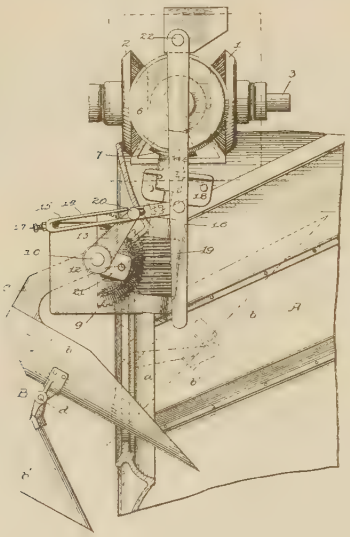
A spot light control consisting of a horizontal tube member adapted to pass through an upright member of an automobile, a collar on either side of said upright one of which is secured to the tube by means of a set screw and the other by means of friction, said friction held collar also being attached to the upright member by means of screws, a central tube member projecting from each end of said first mentioned tube, a collar member secured to one of said projecting ends, a lever hinged to said collar, a rod attached to said lever and passing through said

central tube, an arm attached to the opposite end of said central tube, a wrist plate attached to said arm and con-



nected to said rod member, a means for producing friction between said wrist plate and said arm, and a means for attaching said spot light to said wrist plate.

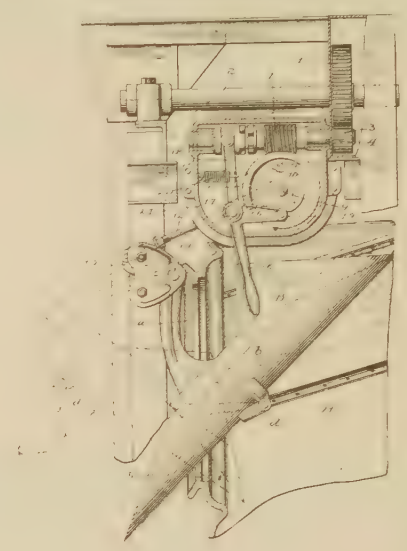
1,415,410. OPERATING MECHANISM FOR CHUTES. SAMUEL SHAFER, Jr., Milwaukee, Wis., assignor to Chain Belt Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Jan. 7, 1921. Serial No. 435,661. 8 Claims. (Cl. 193—29.)



8. A chute and a shaft supporting it, power-driven mechanism for intermittently oscillating the shaft, including a clutch, and a breakable pin adapted to yield should the shaft and chute be moved beyond the desired limits, an arm connected with the shaft, and means operated by the arm for shifting the clutch to neutral position, with the chute and supporting shaft disconnected from the source of power when the chute comes to the position at which it is to be arrested.

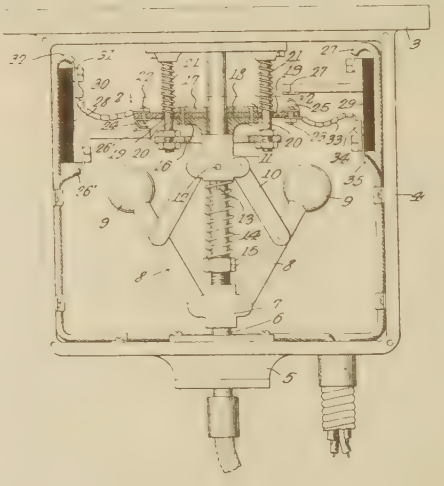
1,415,411. POWER-DRIVEN CHUTE-OPERATING MECHANISM. SAMUEL SHAFER, Jr., Milwaukee, Wis., assignor to Chain Belt Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Jan. 20, 1921. Serial No. 438,801. 6 Claims. (Cl. 193—29.)

1. A chute, a shaft by which it is supported, a second shaft, connections between these shafts whereby on the rotation of the latter the chute-carrying shaft is oscillated; power transmitting gearing, including a clutch, for driving the said second shaft, a shifter for operating



the clutch and a cam arranged to actuate the clutch shifter to automatically disconnect the power at predetermined positions of the chute-carrying shaft.

1,415,412. SPEED CIRCUIT CONTROLLER. ARCHIBALD G. SHAVER, Chicago, Ill., assignor to Regan Safety Devices Company, Inc., a Corporation of New York. Filed Feb. 7, 1921. Serial No. 443,292. 2 Claims. (Cl. 200—80.)

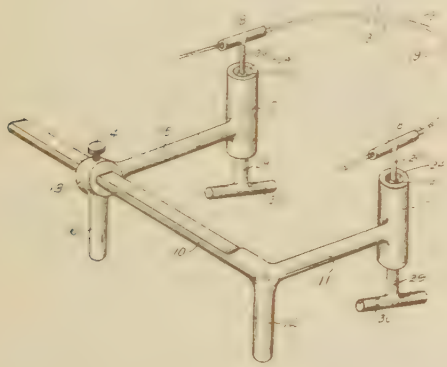


1. In a device of this character, the combination of a support, a shaft journalled therein for rotation, a spring adjusted centrifuge device mounted thereon, a sleeve connected to the centrifuge device for sliding movement upon the shaft, a disk of insulation carried by the sleeve, cooperative contact points carried by the disk and in the path thereof, means for guiding said sleeve and holding it against rotation, and resilient means opposing said disk in opposition to the spring of the centrifuge device.

1,415,413. CONTAINER APPLICATOR. RICHARD SLEE, Swiftwater, Pa. Filed Mar. 29, 1921. Serial No. 456,621. 7 Claims. (Cl. 128—236.)

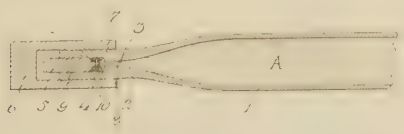
1. A container-applicator comprising a body having an inclined annular shoulder at one end, a screw inserted through the body and having its extremity expanded to form means for engaging the shoulder and passages for the contents, a plunger mounted to move within the body and means to apply manual stress to apply the action of the screw to the plunger.

1,415,414. INSTRUMENT FOR HOLDING APPLIANCES WHILE HEATED. ROBERT H. W. STRANG, Bridgeport, Conn. Filed Mar. 12, 1921. Serial No. 451,848. 17 Claims. (Cl. 266—2.)



1. A device of the character described comprising a pair of tubular arch holding members adapted for insertion of the ends of a tooth regulating arch, and supports by which said members are adjustably carried adapted to permit said members to hold said arch in a position to permit its intermediate portion to be heated and manipulated.

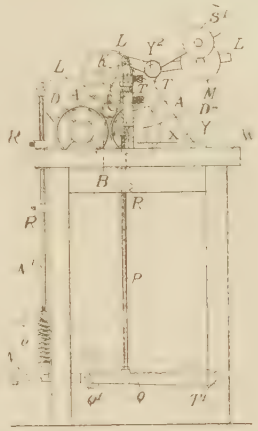
1,415,415. DRAWN PIPE AND PROCESS OF STRETCHING SAME. GENJI TANOMURA, Tokyo, Japan. Filed June 17, 1920. Serial No. 389,713. 2 Claims. (Cl. 205—8.)



1. The method of preparing a pipe for drawing, consisting in filling the pipe with liquid, closing the ends of the pipe, and providing the same at one end with a connecting member for attachment to a stretching means.

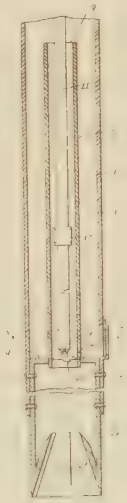
1,415,416. APPARATUS FOR TURNING HANDLES FROM ROUND STOCK. JOSEPH STOREY TILLING and HENRY DOBBINS, Warrington, England. Filed May 17, 1921. Serial No. 470,303. 2 Claims. (Cl. 142—1.)

1. In a lathe for successively shaping and detaching articles from the end of a round rod, comprising a pair of rotating rollers upon which the rod rests with one end thereof projecting beyond the rollers to the length of the desired article, a pattern knife having a travel towards such projecting portion of the rod, a roller movable towards and from the rod when mounted between



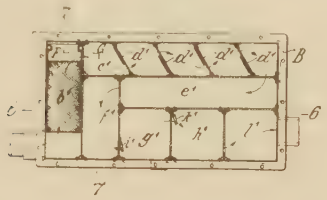
the above mentioned pair of rollers and common means for depressing said roller into contact with the rod and for moving the knife into engagement with the projecting part thereof.

1,415,417. PUMP. GEORGE BARNETTE TREW, Shreveport, La. Filed Aug. 23, 1920. Serial No. 405,285. 1 Claim. (Cl. 166—19.)



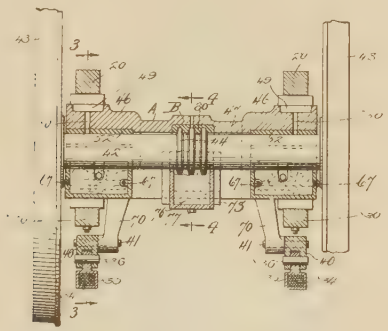
In a device of the class described, an outer casing having a bottom; a cylinder carried by the bottom and opening through the bottom; a plunger mounted to reciprocate in the cylinder; a piston carried by the plunger and embodying pivotally mounted upwardly-foldable leaves provided with cooperating means for limiting the downward folding movement of the leaves, the piston and the plunger constituting means for delivering material from within the cylinder into the space between the cylinder and the casing; and interengaging elements on the plunger and on the casing, cooperating to limit relative movement between the casing and the plunger, when the plunger moves upwardly and when the plunger moves downwardly, one of said elements being resilient, to serve as a cushion.

1,415,418. ARRANGEMENT FOR PURIFYING AND RENDERING ODORLESS THE EXHAUST GASES OF INTERNAL-COMBUSTION ENGINES AND THE LIKE. PHILIPP WACHTEL, Frankfort-on-the-Main, Germany, assignor to Wilhelm Schmidding, Köln-Mannsfeld, Germany, a Firm. Filed Sept. 10, 1920. Serial No. 409,493. 1 Claim. (Cl. 183—48.)



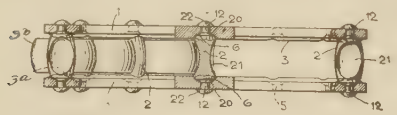
An apparatus for purifying and rendering odorless the exhaust gases of internal combustion engines and the like consisting of a series of chambers, baffling plates in the first of said chambers adapted to conduct the exhaust gases passing through along a horizontal zigzag path to collect any still contained oily matter, porous material in the second chamber, the following filled with absorbent material as sponges and again conducting the gases along a zigzag path, and adapted to completely remove the objectional smell of the exhaust gases.

1,415,419. CONNECTED DRIVING BOX. JOHN C. WALDRON, Brooklyn, N. Y. Filed July 12, 1920. Serial No. 395,719. 5 Claims. (Cl. 105—79.)



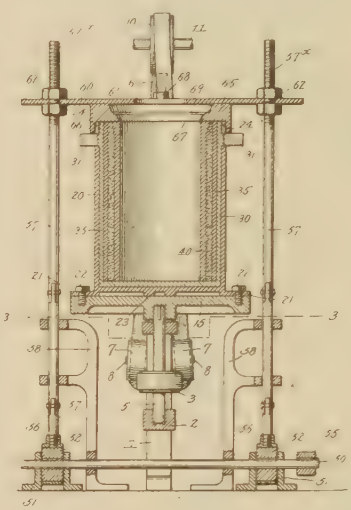
1. The combination in connected driving boxes of a pair of heads, bearings for an axle in said heads, a U shaped member connecting said heads and a thrust bearing for said axle in said U shaped member.

1,415,420. BALL OR ROLLER CAGE FOR ANTIFRICTION BALL OR ROLLER THRUST BEARINGS. ERNST HJALMAR WALODDI WEIBULL, Gottenborg, Sweden, assignor to Nordiska Kullager Aktiebolaget, Gottenborg, Sweden. Filed July 1, 1920. Serial No. 393,396. 6 Claims. (Cl. 64—62.)



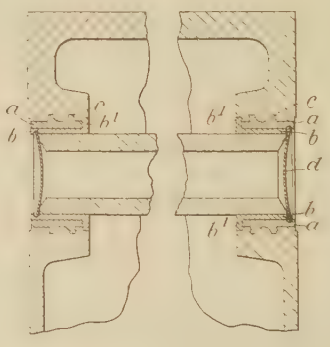
2. A ball or roller cage for antifriction bearings comprising two side rings each having spaced cavities, a plurality of cross-pieces securing said rings together, spacing the rings apart and constituting spacing means for rolling elements, each of said cross-pieces having thickened end portions engaging the cavities in the rings, the central portion of each of said cross-pieces being flattened and curved surfaces arranged between the flattened portion and the ends of the cross-piece, the curved surfaces corresponding to the operative surface of the rolling elements, said flattened portions being provided with recesses located in the radial middle plane of the cage.

1,415,421. CENTRIFUGAL CASTING MACHINE. WILLIAM F. WOLF, Somerville, N. J. Filed Apr. 30, 1921. Serial No. 465,810. 10 Claims. (Cl. 22—65.)



1. In a centrifugal molding machine, the combination of a rotary mold, with a nonrotating cap piece movable into and out of fixed operative relation with the open end of said mold and formed with a pouring opening and an inwardly presented annular flange or lip.

1,415,422. GUDGEON-PIN BUSH FOR PISTONS. ROBERT ALLEN, Woodcote, Reading, England. Filed Mar. 2, 1920. Serial No. 362,706. 9 Claims. (Cl. 74—108.)

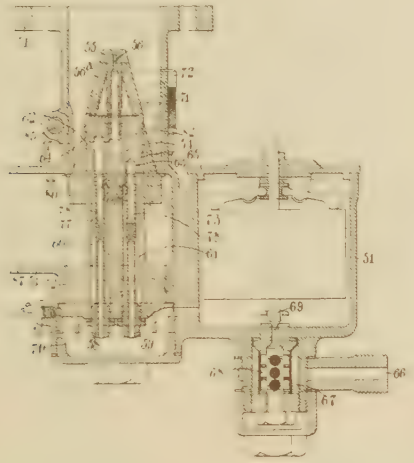


1. The improved gudgeon pin bush for pistons comprising an outer bush member and an inner bush member adapted to fit closely within the outer bush member and receive the gudgeon pin.

1,415,423. CARBURETOR FOR INTERNAL-COMBUSTION ENGINES. WALTER HILLIER ANDERSON, London, England. Filed May 6, 1920. Serial No. 379,363. 2 Claims. (Cl. 261—41.)

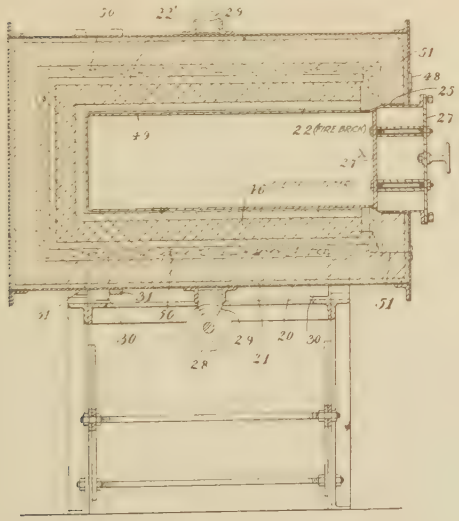
1. A jet or spray carburetor comprising in combination a main casting, a central member therein and having a supplementary jet nozzle situated on the central axis, a mixing chamber, a plurality of main fuel jet

nozzles fitted within said central member on parallel axes, an air inlet for each main fuel nozzle for providing a separate initial air supply thereto, a cone shaped valve



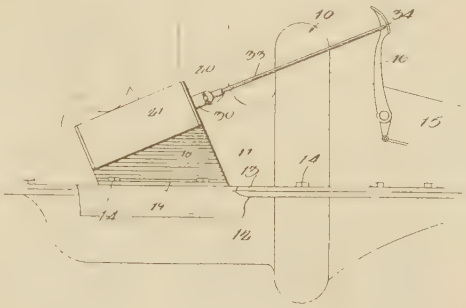
slidable over said central member adapted to simultaneously control both the fuel mixture and a main air supply to the mixing chamber.

1,415,424. MUFFLE FURNACE. JOHANNES ROBERT CARL AUGUST, Halifax, England. Filed May 8, 1920. Serial No. 379,995. 4 Claims. (Cl. 263—34.)



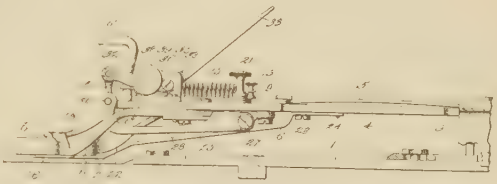
1. A rotary furnace of the rotary barrel type, formed by the combination of a rotary chamber closed at one end, and having a central aperture at the other, a muffle or barrel concentrically mounted inside the said rotary chamber so that while both revolve together an annular space is left between them, an electric heater located in the said space, and insulated from the said rotary chamber, and a removable container inserted closed end first into the barrel through the said central aperture, while the open end which is closed by a detachable cover is left projecting.

1,415,425. PEDAL LOCK. CURTIS DILLON BAILEY, Massillon, Ohio. Filed Mar. 23, 1921. Serial No. 454,712. 10 Claims. (Cl. 74—81.)



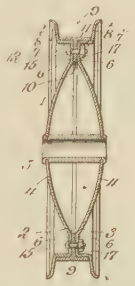
1. A pedal lock comprising a body having a channel provided with branches representing the high and low speed positions of a pedal, and a pedal operated pin movable in said branches.

1,415,426. BUTTON CLAMP FOR SEWING MACHINES. WILLIAM L. BARRON, Newark, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed May 29, 1919. Serial No. 300,687. 12 Claims. (Cl. 112—114.)



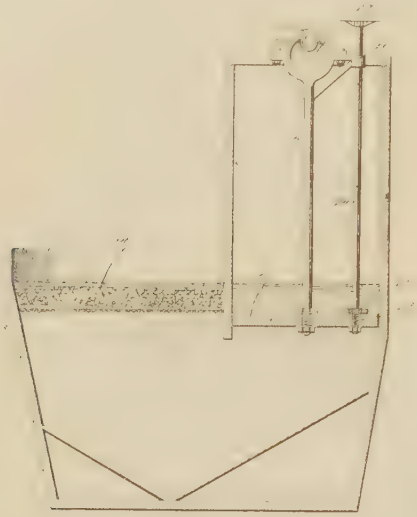
1. A button-clamp for sewing machines comprising a carrier, button clamp-jaws sustained by said carrier, button-confining fingers interposed between said jaws, and means readily accessible while the button clamp-jaws remain in operative relation, for shifting the button confining fingers relatively to said jaws.

1,415,427. VEHICLE WHEEL. WILLIAM F. BETZELL, Washington, D. C. Filed Sept. 16, 1920. Serial No. 410,714. 3 Claims. (Cl. 301—63.)



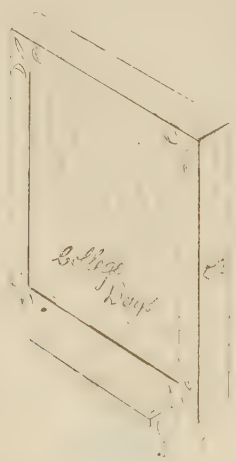
1. An automobile wheel comprising two sheet metal disks bulging oppositely from the rim portion of the wheel toward the axial portion thereof to produce a double convex wheel body, each disk terminating at the peripheral portion in a tire-retaining flange, with the flanges together forming a tire-receiving channel, said wheel having a flat transverse ring seated in the channel and provided with an interior radial flange interposed between the disks, means for uniting the disks and radially flanged ring together, and means for holding one of the tire-retaining flanges removably in place on the wheel.

1,415,428. JIG FOR CONCENTRATING ORES. JOHN R. COMBS, Tipton Ford, Mo. Filed Jan. 31, 1920. Serial No. 355,496. 6 Claims. (Cl. 83—79.)



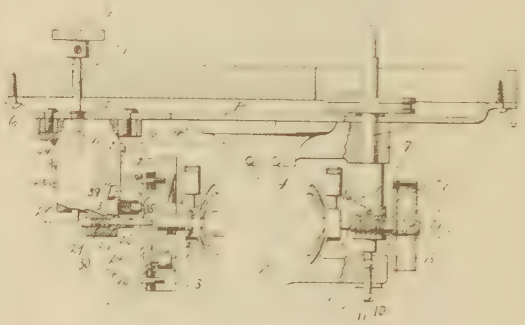
2. In a jig for concentrating ores embodying a suitable receptacle having therein stationary means for supporting the ores being concentrated, a plunger for agitating the fluid by which the ores are concentrated, means for varying the size of the fluid engaging surface of said plunger, during the operation of said plunger.

1,415,429. ALBUM OR HOLDER FOR PHOTOGRAPHS. BENJAMIN U. CUENY, Springfield, Mass., assignor to Taber-Prang Art Co., Springfield, Mass., a Corporation of Massachusetts. Filed June 10, 1921. Serial No. 476,500. 1 Claim. (Cl. 40—102.)



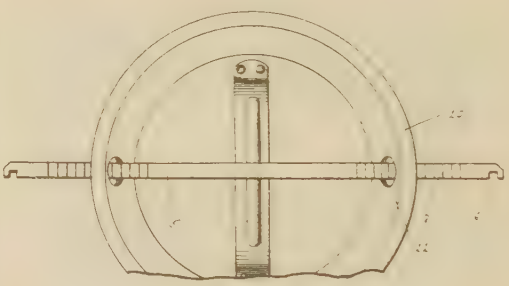
A display album having, in combination, a plurality of leaves, a pair of covers comprising rectangular frames hinged together and having panels fitted therein to provide recesses at both the inner and outer sides of the covers, the construction being such that the inner recesses will receive said leaves and the inner faces of the frames will abut each other when the album is closed so that the edges of the leaves will then be entirely enclosed within said frames, an expansible binder for securing the leaves to the covers, a thickened pedestal centrally located beneath the lower side of each frame for firmly supporting the album in upright position whether the same be opened or closed, and a clasp for positively securing the covers in closed position.

1,415,430. ELECTRIC MOTOR FOR TALKING MACHINES. WILLIAM W. DEAN, Newark, N. J., assignor to Splitdorf Electrical Company, Newark, N. J., a Corporation of New Jersey. Filed July 17, 1918. Serial No. 245,358. 12 Claims. (Cl. 171—222.)



1. The combination with an electric motor having a driving shaft, of a driven shaft, and a train of mechanism for imparting movements from the motor shaft to the driven shaft, said train of mechanism including a resilient device for absorbing any end thrust which may be imposed upon said train of mechanism by the driven shaft.

1,415,431. MILK-CAN SEAL. WILLIAM KERR EDGAR, Lawrence, Kans., assignor to The Edgar Steel Seal & Mfg. Co., Lawrence, Kans. Filed Sept. 19, 1919. Serial No. 324,757. 5 Claims. (Cl. 292—307.)

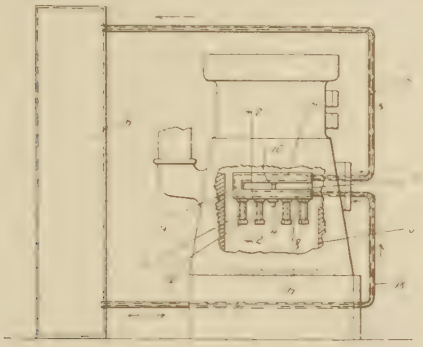


1. The combination with a milk can having opposed openings and a closure insertable between the openings of a seal comprising a strip of metal inserted through the openings, and over the closure the strip being provided with score lines in one face thereof near its ends, said ends being bent at the score lines to form loops engaging the can, and means at the ends of the strip for engaging intermediate portions of the strip to close the can engaging loops, the strip being adapted to break along any one of the score lines when a loop is opened.

1,415,432. WATER HEATER. WILLIAM J. EDWARDS, Geneva, Ohio. Filed Mar. 22, 1921. Serial No. 454,449. 1 Claim. (Cl. 122—20.)

A water heating attachment adapted to be secured inside a furnace over the fire-pot thereof, said attachment comprising a hollow casting having upper and lower water chambers arranged horizontally and substantially parallel to each other and connected together at one end by a relatively short vertical chamber, vertical heating

tubes having closed lower ends and having their upper ends connected to the lower water chamber, and water



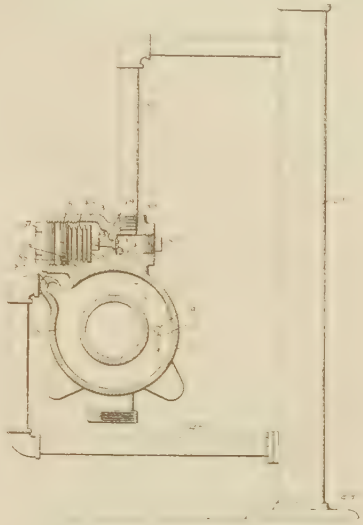
pipes connected to the opposite ends of the upper and lower water chambers from their vertical connecting chamber.

1,415,433. APPARATUS FOR THE EXTRACTION OF OILS AND THE LIKE. HENRI ENGEL, Hatch End, England. Filed Dec. 16, 1919. Serial No. 345,253. 10 Claims. (Cl. 87—6.)

3. Apparatus for the extraction of oils, fats or greases from substances containing or yielding the same, comprising an extracting vessel, a central shaft mounted therein, propelling devices mounted upon said shaft, central bosses formed in said propelling devices, sleeves mounted upon said shaft between adjacent propeller bosses, an inlet for heating fluid at one end of said shaft, an outlet for said fluid at the opposite end of said shaft, means causing said heating fluid to traverse successively through the blades of each propelling device, and ports in said sleeves for maintaining constant communication between said propelling devices.

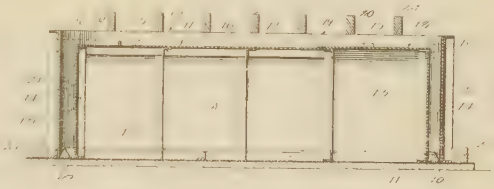
1,415,434. BURNER. MILTON A. FESLER, Oakland, Calif., assignor to Petroleum Heat and Power Company, a Corporation of Delaware. Filed July 2, 1920. Serial No. 393,646. 14 Claims. (Cl. 158—73.)

1. The combination of a burner having a water jacket adapted to be heated by heat developed by the burner, thermo-siphonic means for supplying water to said jacket, means to conduct oil adjacent to said water jacket preliminarily to delivery of the oil to the burner, that the oil may be subjected to heating or cooling influence from the



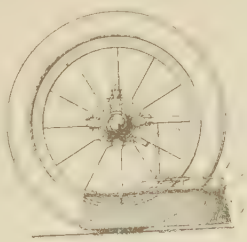
water in said jacket, a valve for the water supply means, and a thermostat responsive to the temperature of the water automatically to control said valve.

1,415,435. BURIAL VAULT. CHARLES BENJAMIN FRANKLIN, Pineville, La. Filed Apr. 29, 1921. Serial No. 465,395. 2 Claims. (Cl. 25—130.)



2. In combination, an outer form and an inner form, the side walls of which are telescopic for adjusting the length thereof, and a triangular form interposed between the said side walls and end walls at the lower edges thereof, the triangular form comprising sections adapted to permit the length thereof to be adjusted.

1,415,436. MUD GUARD FOR WHEELS OF VEHICLES. ALBERT GERMANN and ERNST LANG, St. Gallen, Switzerland. Filed Jan. 19, 1921. Serial No. 438,397. 7 Claims. (Cl. 280—157.)



1. A mud guard for automobiles and other vehicles, comprising guard members for the sides and back of a wheel and means to permit the individual members to be swung into a horizontal plane and held out of operative position.

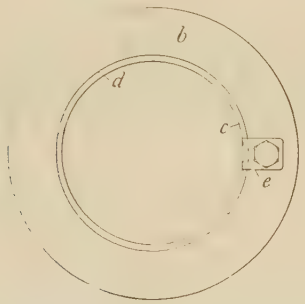
1,415,437. METHOD OF MAKING TENNIS BALLS AND LIKE HOLLOW ARTICLES. WILLIS A. GIBBONS, New York, N. Y., assignor to Revere Rubber Company, a Corporation of Rhode Island. Filed Aug. 24, 1921. Serial No. 494,868. 6 Claims. (Cl. 154—16.)

1. A method of making hollow articles of vulcanized rubber composition which consists in curing the articles in a mold and simultaneously creating within the articles an internal fluid pressure which, during the cure, shapes the composition to the mold and, after the cure, maintains the article inflated to shape and size at a pre-determined pressure suited for the contemplated use.

1,415,438. METHOD OF COVERING TENNIS BALLS. WILLIS A. GIBBONS, New York, N. Y., assignor to Revere Rubber Company, a Corporation of Rhode Island. Filed Aug. 24, 1921. Serial No. 494,946. 4 Claims. (Cl. 154—16.)

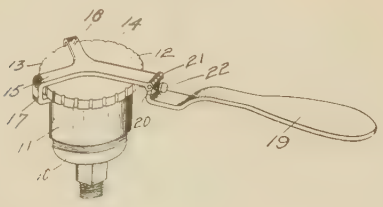
1. The method of covering tennis balls which consists in coating either or both a vulcanized and inflated center and cover sections with a heat settable plastic, expanding the center from its normal size to a size at least as great as that it assumes on heating in play, assembling the cover sections on the center with their edges in abutting relation while the center is expanded, reducing the thus covered center to normal size, and finally permanently adhering the cover sections to the center in a mold by heating.

1,415,439. METHOD OF MAKING PISTON RINGS AND DIE FOR SAME. WILLIAM HENRY GRAY and JOHN WILLIAM HOWLETT, Lymington, England. Filed Dec. 23, 1920. Serial No. 432,813. 3 Claims. (Cl. 29—1.)



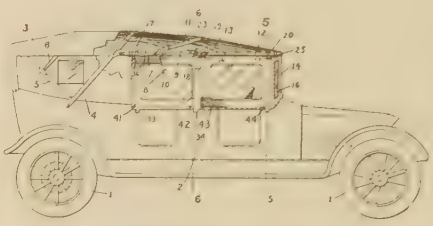
1. In the manufacture of piston and like rings, the holding of a divided ring which is stretched, or initially shaped, to a non-circular form, in a correspondingly shaped die, and hammering the ring while thus held, substantially as described.

1,415,440. GREASE-CUP TOOL. LEONARD W. GREIN, Cheney, Wash. Filed July 18, 1921. Serial No. 485,573. 3 Claims. (Cl. 81—3.)



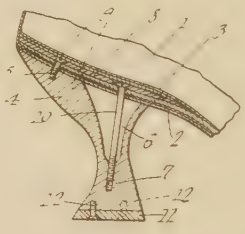
1. A wrench comprising diverging arms and L-shaped hooks at the ends of said arms to engage under a flange, a handle having a hinge joint extending transversely of the longitudinal axis of the wrench, said handle having a bent portion adjacent the hinge-joint, and a screw passed through said bent portion adapted to form a fulcrum point for co-action with said L-shaped hooks.

1,415,441. SIDE CURTAIN FOR AUTOMOBILES. RAOUL J. GRUENBERG, San Francisco, Calif. Filed Apr. 16, 1919. Serial No. 290,378. 7 Claims. (Cl. 296—140.)



1. The combination including an automobile top having longitudinal side rails and a plurality of transverse guides, abutment elements associated with said guides, and relatively stiff flexible side curtains slidably supported by the guides and adapted to have their lower edges brought against the side rails and their upper portion brought against the abutments to be frictionally maintained against displacement by their inherent tension.

1,415,442. HEEL. CHARLES HOMER HALL, Chicago, Ill. Filed Jan. 10, 1919. Serial No. 270,518. 1 Claim. (Cl. 36—40.)

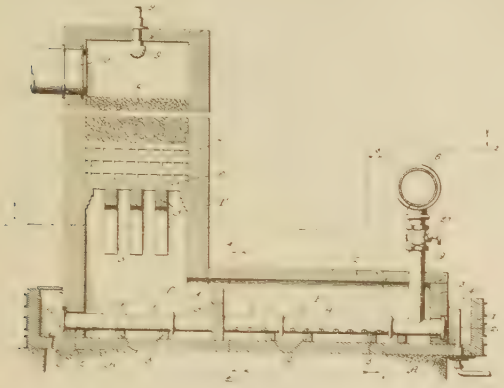


In a shoe, an upper and a heel, a sole superposed on the heel, a plate superposed on the sole, and a screw passing through the plate and the sole and threaded into the heel, the screw having a head engaging the plate, the forward end of the plate being free, whereby the plate will move toward the heel and conform readily to the sole when the screw is advanced, and means for securing the rear end of the plate fixedly to the heel, against movement, whereby the plate will be prevented from moving longitudinally or laterally and leaving a space between the edge of the plate and the upper, the heel having a cavity through which the screw passes, the cavity being located beneath the free portion of the plate, and beneath the corresponding portion of the sole, and being of sufficient size so as to permit the sole to yield slightly, thereby to secure a firm bearing engagement between the plate and the sole, regardless of minor irregularities in the sole or the plate.

1,415,443. METHOD OF AND APPARATUS FOR CONCENTRATING ACID. INGENUIN HECHENBLEIKNER and THOMAS C. OLIVER, Charlotte, N. C., assignors to Chemical Construction Company, a Corporation of North Carolina. Filed Sept. 16, 1920. Serial No. 410,626. 20 Claims. (Cl. 23—1.)

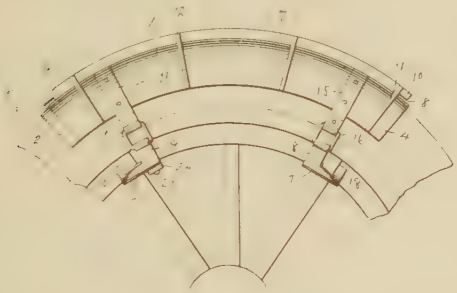
1. The herein described method of concentrating and purifying sludge acids or separated sludge acids which con-

sists in first concentrating the sludge acid by subjecting a body of the acid to heat at one stage and then purifying



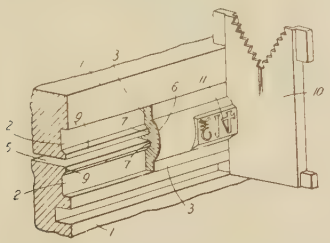
the concentrated acid by subjecting the same to a higher degree of heat at another stage to eliminate or neutralize impurities.

1,415,444. WHEEL SHOE FOR AUTOMOBILES. FRANK HIBNER, North Platte, Nebr. Filed July 14, 1920. Serial No. 396,054. 3 Claims. (Cl. 152—16.)



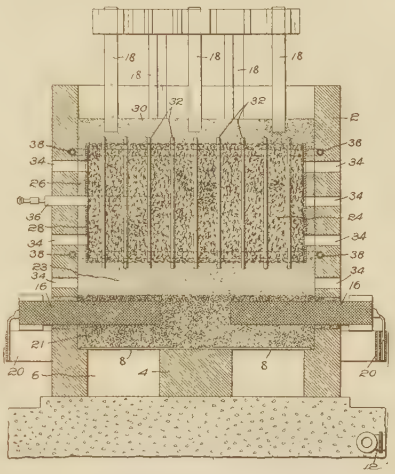
1. A sectional tire armor having the sections provided each with a tread forming rib undercut at each end and terminating in a tongue and groove respectively whereby the sections may be relatively interlocked with the undercut portions of the rib providing a slot below each interlocking joint into which any suitable key means may be inserted for holding the sections in place.

1,415,445. APPARATUS FOR CASTING TYPE BARS OR SLUGS. JOHN GLENNIE HOLBOURNS, London, England, assignor to Linotype and Machinery Limited, London, England, a Limited Liability Company of Great Britain. Filed Feb. 28, 1919. Serial No. 279,835. 6 Claims. (Cl. 199—55.)



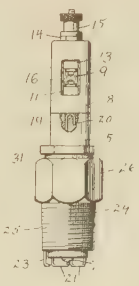
1. An apparatus for casting type bars or slugs of greater width than the height of the type faces thereon, embodying a mold formed in its front face with a recess of a length and width corresponding to the length and width of the cast slug in its ultimate form and having a relatively narrow longitudinal parallel-walled slot communicating with said recess to produce a thin severable sprue on the slug and provided with a lip located in said facial recess to produce a recess in the base of the slug adjacent the sprue to permit the severance of the sprue above said base.

1,415,446. APPARATUS FOR MAKING ALUMINUM NITRIDE AND OTHER CHEMICAL SUBSTANCES. WILLIAM HOOPES, Pittsburgh, Pa., assignor to Aluminum Company of America, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Sept. 19, 1919. Serial No. 324,763. 30 Claims. (Cl. 204—64.)



1. In apparatus of the class described, in combination, a reaction chamber enclosed laterally by a wall; a grate adjacent the bottom of said reaction chamber; a plurality of pipes extending through said wall and opening into the space beneath said grate and connected to a suitable gas supply; a lower layer of coke above said grate and supporting a charge within said reaction chamber; an upper layer of coke supported by said charge; a lateral layer of coke surrounding and supporting said charge laterally and interposed between the latter and said wall and connecting said upper and lower layers; a plurality of lower electrodes having their inner ends embedded in said lower coke layer; a plurality of upper electrodes having their inner ends in contact with said upper coke layer; and electrical connections connecting said electrodes with a suitable source of electric current.

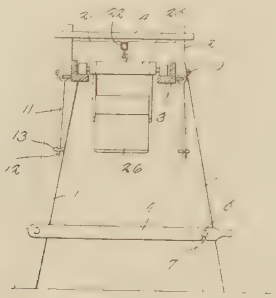
1,415,447. SPARK PLUG. LORENZO G. HOWARD, Providence, R. I. Filed June 15, 1920. Serial No. 389,194. 1 Claim. (Cl. 123—169.)



A spark plug having a core, an electrode loosely mounted therein, a cage resting on the core and said electrode, interengaging means intermediate the core and cage, a

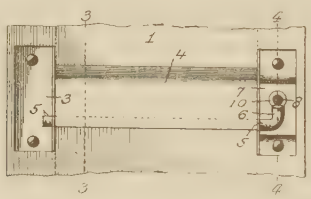
second electrode, said second electrode being loosely mounted in the core and said cage, a head on the second electrode to underlap the core and to cooperate with the first electrode, the cage having a window, a nut in said window engaging the second electrode to prevent displacement thereof, a third electrode, said third electrode being mounted by the cage and having a fastening nut in said window, projections on the nuts in said window, a visual protector for the electrodes in said window and into which said projections extend to mount it, a bushing, means to secure the core to the bushing, and electrode means on the bushing to cooperate with the said electrodes.

1,415,448. OVERHEAD CARRIER. LEONIDAS S. HUDSON, Newark, N. J. Filed Dec. 20, 1920. Serial No. 432,050. 3 Claims. (Cl. 104—26.)



1. A structure of the class described including a series of units each including supports arranged in pairs, upwardly projecting extensions upon the supports, opposed rails bearing on the supports and secured to the extensions, said rails having upwardly extending guide flanges, cross braces detachably connecting the lower portions of the supports, and means for detachably and pivotally connecting the ends of the rails of abutting units.

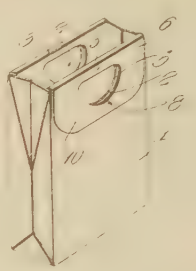
1,415,449. FRUIT AND VEGETABLE CUTTER. MICHAEL KIRNBAUER, Forest Park, Ill. Filed Jan. 14, 1922. Serial No. 529,108. 2 Claims. (Cl. 146—7.)



1. In a slicing implement, a flat work board, a cutter blade arranged transversely of the same, a shaft journalled transversely on said work board and having a lateral arm at one end, the butt of the cutter blade being secured to said shaft, and means for imparting a turning movement to said arm and its associated parts, the same comprising gear teeth on the outer end of the lateral arm, and a worm shaft journalled in the work board and having operative engagement with the gear teeth of said arm.

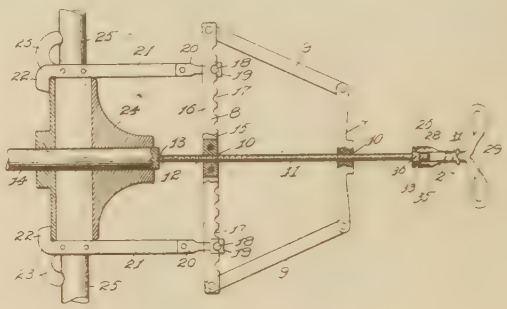
1,415,450. BAG. FRED L. JOHNSON, Binghamton, N. Y., assignor to Mid-East Specialty Company, Inc., a Corporation of New York. Filed Apr. 18, 1921. Serial No. 462,097. 2 Claims. (Cl. 229—54.)

2. A bag having a hand opening in its side adjacent the open end of the bag, a reinforcing sheet for the said side of the bag reinforcing the side about the opening therein, and a separate covering element straddling the said side of the bag and having its inner and outer side portions of substantially the same size and shape as the



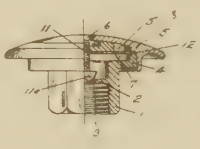
reinforcing sheet, the reinforcing sheet and side portions of the covering being relatively large and having openings registering with the opening in the side of the bag.

1,415,451. WHEEL PULLER. ALFRED B. JONES, Farmington, Mo. Filed Aug. 23, 1920. Serial No. 405,532. 1 Claim. (Cl. 29—85.)



A wheel puller of the character described comprising a rack bar, and a cross-bar, the connecting arms connecting both ends of said bars, a screw threaded member passing through said bars, a detachable handle mounted on the free end of the screw threaded member, the opposite end of the screw threaded member designed to contact with the end of the shaft on which the wheel is mounted, and pulling arms supported by the rack bar, its opposite ends adapted to contact with the hub or spokes of the wheel, substantially as specified.

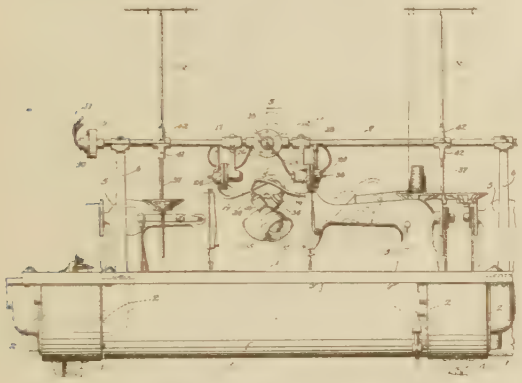
1,415,452. SPRAY SPRINKLER. VENICE A. H. KAHLER, Pasadena, Calif. Filed Feb. 8, 1921. Serial No. 443,375. 1 Claim. (Cl. 299—118.)



A spray lawn sprinkler of the character shown and described comprising in combination a body internally threaded at one end, having a floor or partition member with central opening therein and having its opposite end of larger internal diameter and externally threaded, a top cap internally threaded and adapted to screw on to the larger externally threaded portion of said body and having a central opening, a disc member of a diameter corresponding to the diameter of the larger part of said body and adapted to be clamped between the edge thereof and said top cap, said disc member having a series of holes therethrough adjacent its outer edge and having a central portion on its upper side of thicker construction and provided with a plurality of tangentially disposed openings

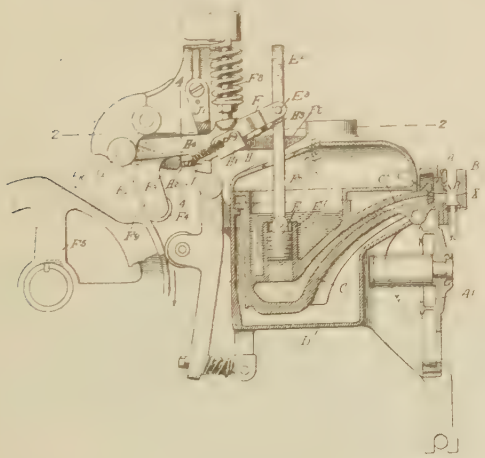
extending from the holes through the outer edge of the disc to the central part of said thicker part, and a screw valve member threaded through said disc portion and havinng its end adapted to seat in the central opening in the floor or partition member, whereby to cut off communication through said opening.

1,415,453. LIGHTING SYSTEM FOR POWER TABLES. JOHN D. KARLE, Roselle Park, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed May 5, 1919. Serial No. 295,012. 3 Claims. (Cl. 240—2.)



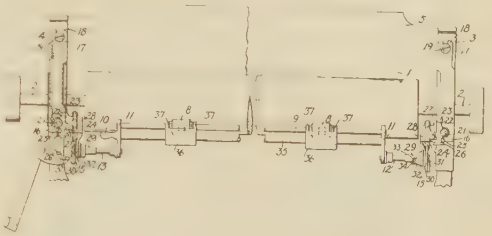
1. In a lighting system for sewing machine power-tables, a lighting unit including a fixed arm and a movable arm frictionally pivoted at the free end of said fixed arm to swing vertically, said movable arm including a support having a socket extending parallel to and closely adjacent the transverse vertical plane through the stitching point of the sewing machine to be illuminated, an arm proper adjustably mounted in said socket and having its extremity offset from but directed toward said vertical plane, and a lighting element mounted at the extremity of said movable arm.

1,415,454. TYPOGRAPHICAL CASTING MACHINE. DAVID S. KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Aug. 25, 1921. Serial No. 495,272. 8 Claims. (Cl. 199—53.)



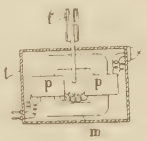
1. In a typographical casting machine, the combination of a melting pot, a plurality of pump plungers located therein, operating means for said plungers, and means for preventing the operation of one plunger independently of another.

1,415,455. TYPEWRITING MACHINE. ALFRED G. F. KUROWSKI, Brooklyn, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed June 25, 1920. Serial No. 391,675. 15 Claims. (Cl. 197—138.)



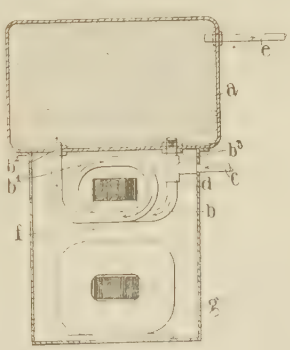
1. In a typewriting machine, the combination with a platen and a platen frame having ends, of an upper feed-roll to run upon the platen, a shaft upon which said roll is slidably journaled, supports for said shaft in said ends, a second stiffening shaft located radially of the platen in front of the first shaft, and a slidable brace engaging both of said shafts and connected to slide with a roll.

1,415,456. ELECTRIC COOKING OR HEATING VESSEL. CLARENCE HAROLD LAUTH, London, England. Filed Dec. 16, 1919. Serial No. 345,352. 2 Claims. (Cl. 219—47.)



1. An electric cooking and heating apparatus for use in a supply circuit of high amperage and low voltage comprising a vessel for receiving the contents to be heated, the shell of the vessel constituting the main resistance of the circuit wherein the heat necessary for heating purposes is developed, and current distributing contacts rigidly secured to the shell of the vessel solely in the proximity of its bottom edge, said contacts being rigidly secured to, and in good thermal and electrical contact with the shell of the vessel and dimensioned and shaped in such a manner as to cause an intense sheet of current to flow through and evenly heat the entire bottom of the vessel and a less intense current to flow through the sides thereof, gradually diminishing in intensity towards the top of the vessel, as set forth.

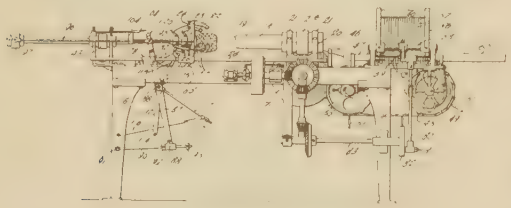
1,415,457. ELECTRICALLY-HEATED LIQUID HEATER. CLARENCE HAROLD LAUTH, London, England. Filed June 16, 1920. Serial No. 389,471. 5 Claims. (Cl. 219—47.)



1. The combination with a liquid heater and a transformer for heating the said heater by a current of high

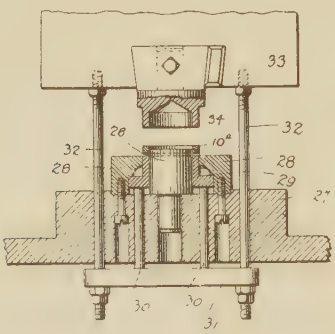
amperage and low voltage derived from the secondary of the transformer of a path for the flow of liquid to the heater, which path is so arranged that the liquid will absorb heat from the transformer prior to its reaching the heater, as and for the purposes set forth.

1,415,458. FRUIT CORING, SIZING, AND SLICING MACHINE. ELGIE J. LEWIS, Middleport, N. Y. Filed Nov. 7, 1921. Serial No. 513,270. 30 Claims. (Cl. 146—6.)



28. In a machine for operating on fruit, the combination of means for sizing fruit, conveying means to which the fruit passes from said sizing means, and slicing means to which the fruit is passed by said conveying means.

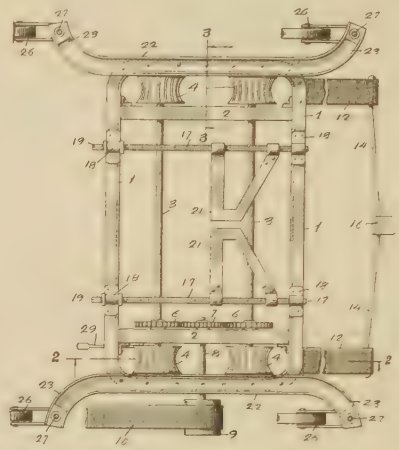
1,415,459. MACHINE FOR SIZING PROJECTILE BANDS. ALEXANDER W. LIMONT, Bridgeport, Conn., assignor to Bridgeport Brass Company, Bridgeport, Conn., a Corporation of Connecticut. Original application filed June 28, 1918, Serial No. 242,401. Divided and this application filed Feb. 17, 1919, Serial No. 277,662. Renewed Nov. 16, 1921. Serial No. 515,690. 9 Claims. (Cl. 78—1.)



1. In a machine for making projectile bands, the combination of a die bed, an upstanding, stationary mandrel thereon, a die member surrounding the mandrel with clearance to receive a band, and separate means to compress the band in the space between the mandrel and the die member.

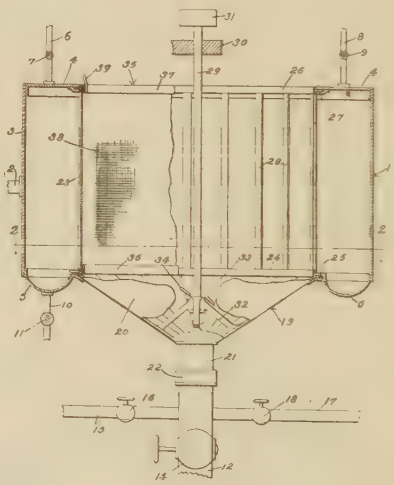
1,415,460. PORTABLE POWER-TRANSMITTING DEVICE. WILLIAM J. LINDECKER, San Francisco, Calif. Filed June 11, 1921. Serial No. 476,906. 9 Claims. (Cl. 74—106.)

1. A portable power transmitting device comprising a frame; rollers rotatably mounted upon said frame and arranged to engage and support the rear wheels of a motor vehicle; a driving pulley connected to said rollers whereby the same may be rotated by the said rear wheels; castors pivotally mounted upon said frame whereby the same may be transported; means for lowering and raising said castors whereby said frame may rest upon the ground and be easily transported; inclines hingedly connected to the frame and a draw-bar connected to the inclines whereby said device may be towed behind a



motor vehicle and directly in line with the rear wheels thereof to facilitate placement of said vehicle on said device.

1,415,461. FILTER PRESS. RICHARD DANIEL LUCAS, Wallaceburg, Ontario, Canada. Filed Dec. 9, 1920. Serial No. 429,589. 3 Claims. (Cl. 210—180.)

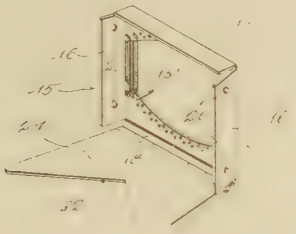


1. In a device of the class described, a casing, a rotary filter journaled in the casing, means for rotating the filter, a combined inlet and outlet member wherewith the filter communicates, a valve in said member, a valve-controlled inlet for unfiltered material, and a valve controlled washing inlet, each communicating with said member between the valve thereof and the filter, a valve-controlled suction conduit, and a valve-controlled pressure conduit, each communicating with the casing.

1,415,462. VOICE INTENSIFIER. ISAAC V. MORRELL, Elgin, Ill. Filed Jan. 20, 1921. Serial No. 438,742. 8 Claims. (Cl. 181—27.)

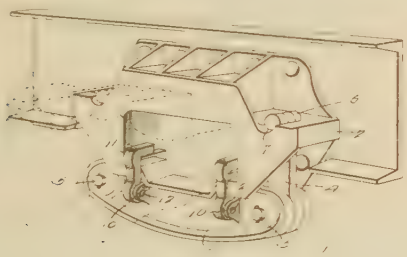
8. A voice intensifier comprising a horn and a mouthpiece, an open reed carrier fitting within said mouth-

piece, and a flexible element carried by and extending from the frame longitudinally within the mouth-piece



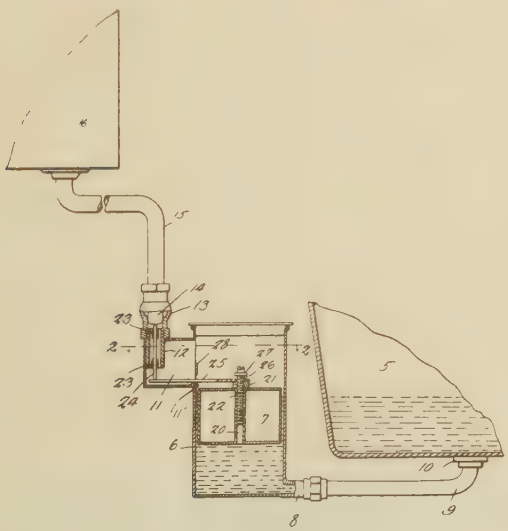
for engaging the chin and moving with the same and directing sound waves through the mouth-piece and reed carrier.

1,415,463. CENTERING DEVICE FOR CAR COUPLINGS. WALTER P. MURPHY, Chicago, Ill. Filed Dec. 30, 1919. Serial No. 348,286. 7 Claims. (Cl. 213—42.)



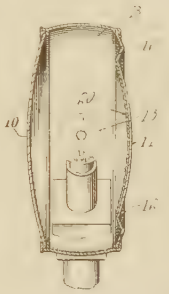
1. In a car, the combination of a coupler, of means to temporarily hold the coupler in proper coupling position while cars are being coupled, said means being released by impact or pull on the coupler.

1,415,464. AUTOMATIC OILING DEVICE FOR INTERNAL-COMBUSTION ENGINES. FRANK J. C. NICHALSON, Baltimore, Md. Filed Apr. 8, 1921. Serial No. 459,518. 1 Claim. (Cl. 184—103.)



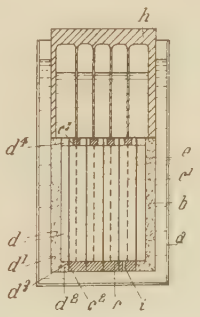
The combination of a float chamber having, at its lower end, an outlet adapted to be connected to the crank-case of an engine, and a side recess toward the top, said recess having internally, on its bottom, a transverse ledge, a nipple connected to said recess and opening thereinto, a valve-casing connected to the nipple and containing an upward-opening valve, an oil-supply connection to the valve-casing, a push-rod slidably mounted in the nipple and extending into the valve casing to engage the valve and unseat the same, a lever projecting into said recess and resting upon said ledge as a fulcrum and being elevated thereby above the bottom of said recess, said lever engaging the push-rod for actuating the same, a float in the chamber, and a stem carried by the float and provided with an abutment above the lever to engage the same, said lever having an aperture through which the float-stem passes, said stem being longitudinally threaded and screwed into said float, whereby said stem is longitudinally adjustable to vary the spacing between the lever and the abutment.

1,415,465. SIGNAL LIGHT FOR AUTOMOBILES. OMAR I. NIGH, Washington, D. C. Filed Oct. 28, 1920. Serial No. 420,195. 7 Claims. (Cl. 240—7.)



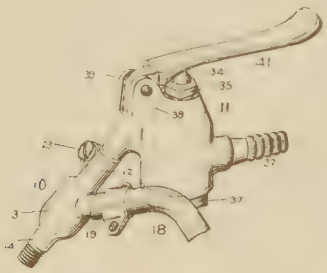
3. A signal light for automobiles comprising a curved frame, a transparent closure at one side thereof, a mirror at the other side, a lamp positioned between the two, the rear surface of the mirror being covered with reflecting material to provide a reflector for the lamp, and a light transmitting colored annular closure surrounding the mirror, substantially as set forth.

1,415,466. ELECTROLYZER. RODOLPHE PECHKRANZ, Carouge-Geneva, Switzerland. Filed June 1, 1920. Serial No. 385,598. 3 Claims. (Cl. 204—5.)



1. In an electrolyzer of the tank type in combination vertical diaphragms, a plurality of frames of insulating material, vertical electrodes of slightly smaller size than said diaphragms, said electrodes being arranged in alternation with said diaphragms and so dimensioned that when inserted into said frames they do not reach to the outer edges of the latter, substantially as described.

1,415,467. CLEANING DEVICE. GEORGE B. PICKOP, New Haven, Conn., assignor to The Malleable Iron Fittings Company, Branford, Conn., a Corporation of Connecticut. Filed July 1, 1918. Serial No. 242,871. 2 Claims. (Cl. 230—13.)



1. A portable manually directed engine or like cleaner having a nozzle and a mixing chamber provided with connections for a motive fluid and for a cleaning substance, and having a socket, a valve housing containing a spring pressed valve and having its outlet nozzle detachably and rigidly mounted in said socket and means to operate the valve against the tension of the spring, said means being located in position to be operated by the hand directing the cleaner nozzle.

1,415,468. PROCESS FOR MANUFACTURE OF RUBBER-LIKE SUBSTANCES. HERMANN PLAUSON, Hamburg, Germany. Filed Jan. 13, 1921. Serial No. 437,113. 4 Claims. (Cl. 260—6.)

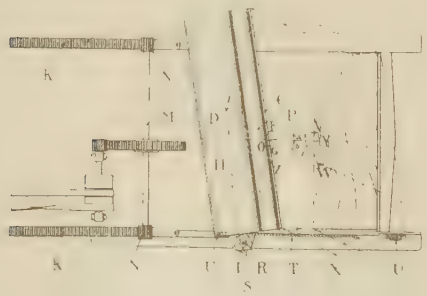
1. Process of polymerizing hydrocarbons of the butadiene series at temperatures not above normal, by employing high pressures of the order of fifty to six-hundred atmospheres in presence of a diluent.

1,415,469. PROCESS OF IMPROVING THE ODOR, TASTE, AND DIGESTIBILITY OF RAW YEAST FOR THE PURPOSE OF EMPLOYING IT AS EDIBLE YEAST. HERMANN PLAUSON, Hamburg, Germany. Filed Jan. 13, 1921. Serial No. 437,120. 9 Claims. (Cl. 99—10.)

4. The process of treating yeast which consists in rupturing the cells by disintegration in water at high speed and then hydrogenating the yeast.

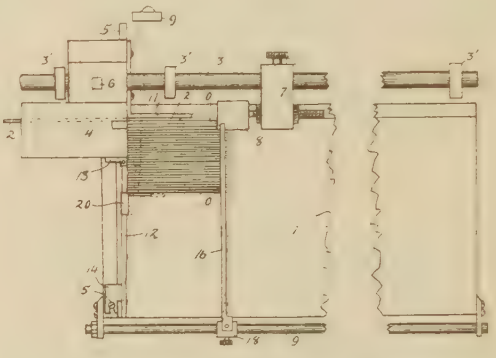
9. A hydrogenated yeast milk in which the yeast cells are mechanically distintegrated and form a colloidal solution.

1,415,470. WOOD SLICING MACHINE. PIERRE JEAN RENÉ POSTEL-VINAY, Paris, France, assignor to Societe Des Moteurs Salmson, (Systeme Canton-Unne,) Paris, France. Filed June 24, 1921. Serial No. 480,184. 2 Claims. (Cl. 144—162.)



1. A wood slicing machine comprising a frame, a reciprocating carriage on said frame, means for operating said carriage, a slide, means for guiding said slide on the carriage in a direction at an angle with the direction of travel of the carriage, a tool-holder on said slide, a cutter on said tool-holder having its cutting edge at an angle with the said direction of travel, a shaft rotatably supported on said carriage, two pinions on said shaft, a rack secured to the slide and in engagement with one of said pinions, a rack slidably mounted on the machine frame and in engagement with the other pinion and stop members on the machine frame for limiting the stroke of the latter rack.

1,415,471. SLUG STACKER. WILLARD E. PRESSLER, Fort Wayne, Ind. Filed Apr. 22, 1921. Serial No. 463,615. 3 Claims. (Cl. 199—61.)



1. In an attachment for a slug machine having a table and a movable cutting mechanism, a guide having pivotal connection at one end with the table and at its opposite end with the cutting mechanism; a slide having a stop thereon and being frictionally engaged in connection with the guide; and a bar arranged in parallel relation with the guide and having connection at one end with the cutting mechanism and pivotal support at its opposite end.

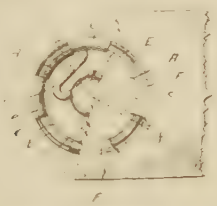
1,415,472. CROCHET NEEDLE. VOJTĚCH PUC, Prague-Vinohrady, Bohemia. Filed Aug. 1, 1919. Serial No. 314,764. 3 Claims. (Cl. 66—17.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

3. A crochet needle formed from a single piece of wire having a hooked working end and a handle formed by bending the wire upon itself to form a loop, and a ring to provide a finger rest in combination with a clamp for holding the free end of the wire below the ring close to the inner portion of the working end of the handle.

1,415,473. SAFETY PIN. VOJTĚCH PUC, Prague-Vinohrady, Bohemia. Filed Aug. 4, 1919. Serial No. 315,112. 4 Claims. (Cl. 24—73.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

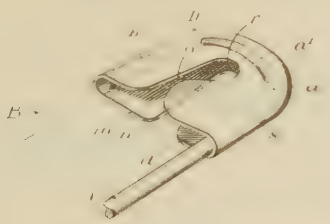
1. A safety pin, provided with a laterally projecting member and having parts which are movable under spring tension to lengthen the pin as a whole and to thus withdraw the pointed end of the pin from its guard.

1,415,474. SNAP BUTTON. VOJTĚCH PUC, Prague-Vinohrady, Bohemia. Filed Aug. 6, 1919. Serial No. 315,618. 3 Claims. (Cl. 24—208.)



3. A garment fastener comprising a member having in its peripheral portion hollow tubular parts adapted to receive a wire when inserted endwise and which tubular parts are arranged suitable distances apart to provide spaces to receive portions of the cloth to which the button is applied.

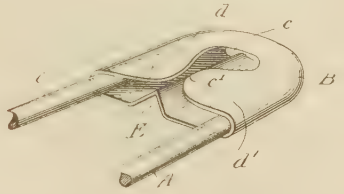
1,415,475. SAFETY PIN. VOJTĚCH PUC, Prague-Vinohrady, Bohemia. Filed Aug. 6, 1919. Serial No. 315,620. 2 Claims. (Cl. 245—156.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



1. A safety pin, comprising a stationary member, a movable pointed member connected by a coil, and a sheet metal guard, one side of which is formed with a diagonal slot and is flat and straight between the stationary and pointed members and the opposite side of which is formed with a diagonal slot and provided with a tongue of single thickness extending without bend from the extreme outer side of the stationary member diagonally inwards toward the opposite side of the guard across the slot therein.

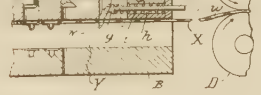
1,415,476. SAFETY PIN. VOJTĚCH PUC, Prague-Vinohrady, Bohemia. Filed Aug. 11, 1919. Serial No. 316,571. 3 Claims. (Cl. 24—156.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

1. A safety pin, comprising a stationary member, a pointed member, and a guard to which the stationary member is attached, which guard is formed on one side with a slot and on the opposite side with a fixed ridge beneath the slot and the outer end of which is disposed on



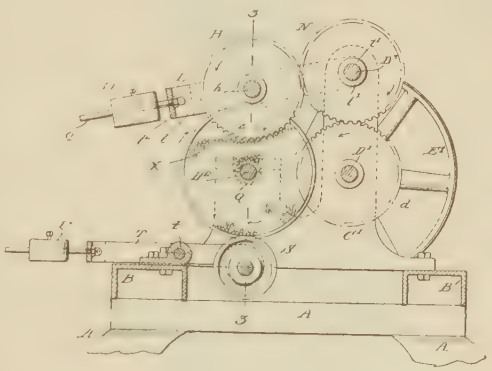
that side of the slot next the fixed member, said ridge having an inclined surface extending to the outer side of the guard for guiding the pointed end of the pin.

1,415,477. DIES FOR PUNCHING SMALL METAL PARTS. VOJTĚCH PUC, Prague-Vinohrady, Bohemia. Filed Feb. 4, 1920. Serial No. 356,115. 8 Claims. (Cl. 164—89.)



1. In a machine for forming small metal parts or articles from a strip of metal, the combination with means for punching the strip, for raising and lowering it and for advancing it step-by-step, of a pivotally mounted finger adapted to engage the strip when raised and to be moved thereby, and means for limiting the movement of said finger.

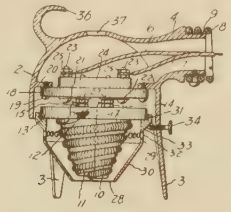
1,415,478. POLISHING MACHINE. VOJTĚCH PUC, Prague-Vinohrady, Bohemia. Filed Feb. 6, 1920. Serial No. 356,783. 20 Claims. (Cl. 51—164.)



1. A polishing machine comprising a container for the articles to be polished, means for rotating the container, a toothed roller journalled outside the container extending thereinto and bearing on the articles, and means for rotating said roller.

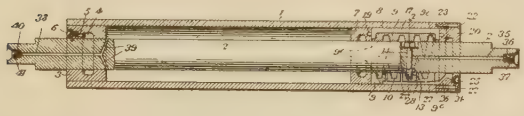
2. A polishing machine comprising a container for the articles to be polished, means for rotating the container, a toothed roller journalled outside the container and operating above the articles therein, means for rotating said roller, and a roller operating in the container below the articles.

1,415,479. ELECTRICALLY HEATED FUSING IMPLEMENT. EDWIN W. PUTNAM, Hartford, Conn. Filed Oct. 28, 1921. Serial No. 511,028. 8 Claims. (Cl. 219—21.)



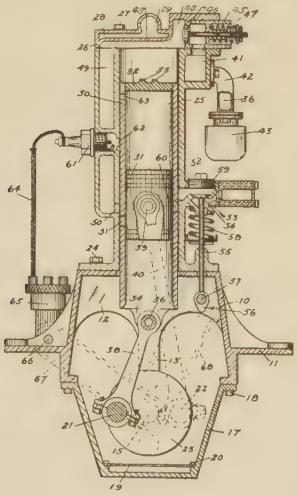
1. An implement of the class described, comprising a heating element, and a guard device surrounding the heating element and having an opening for radiant heat, the implement being provided with means for positively holding the heating element out of contact with a body in connection with which said implement is being used.

1,415,480. INK DISTRIBUTOR. WILLIAM JACOB RAMSAFER, New York, N. Y. Filed July 5, 1921. Serial No. 482,488. 8 Claims. (Cl. 101—348.)



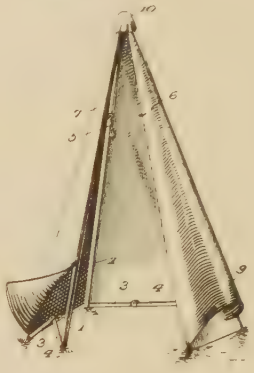
1. An ink distributor comprising a shaft, a distributing roll slidably and revolubly mounted on said shaft and formed with a chamber at one end, a sectional sleeve fitting within said chamber and provided with an internal duplex thread wholly within said sleeve, means for locking the sleeve to the roll to rotate therewith, means for confining the sleeve within the chamber, and a crescent switch pivotally mounted on said shaft and engaging the duplex thread of the sleeve.

1,415,481. INTERNAL-COMBUSTION ENGINE. FRANK J. REED, Omaha, Nebr., assignor of one-half to Alvin H. Siert, Omaha, Nebr. Filed Dec. 3, 1920. Serial No. 427,980. 3 Claims. (Cl. 123—66.)



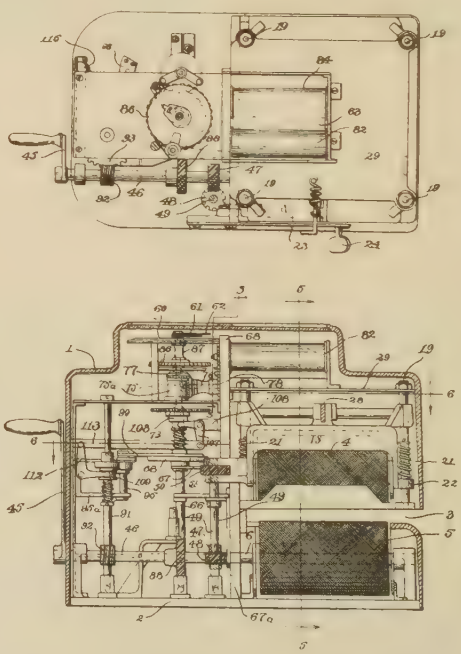
1. In an internal combustion engine, the combination of a two-part crank case, the upper part of said case having transverse webs with depending supporting arms having bearings in their lower ends, a crank shaft supported in said bearings, cylinders mounted upon the crank case, a pair of pistons mounted in each cylinder, said crank shaft having a pair of offset cranks in registry with each cylinder, and independent connecting rods between the pistons and the crank portions of the crank shaft whereby said crank portions are adapted to move said pistons toward and from each other during turning of the crank shaft.

1,415,482. COLLAPSIBLE TENT. RAYMOND THEODORE REED, Wichita, Kans. Filed Aug. 6, 1921. Serial No. 490,278. 2 Claims. (Cl. 135—4.)



1. A folding tent comprising a series of uprights, a ring upon which the upper ends of the uprights are mounted to swing and slide into spaced relation or into contact with each other, folding arms connecting the lower ends of the adjacent uprights and a covering for the uprights, said folding arms consisting of sections pivoted to the uprights at their outer ends and connected by a rule joint at their adjacent ends, one of the arms being omitted, and a hook pivoted to one upright at the omitted arm and an eye on the other upright for engagement by the hook.

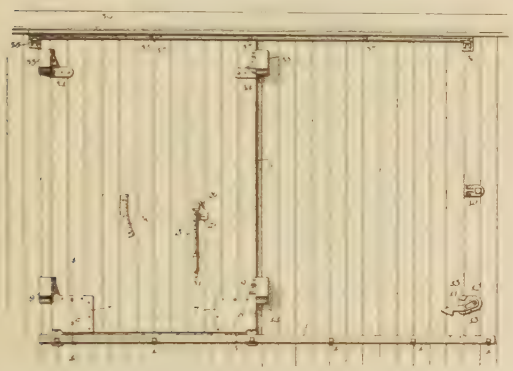
1,415,483. LACE-MEASURING MACHINE. FREDERICK REICHMANN, Webster Groves, Mo., assignor to The Measuregraph Company, St. Louis, Mo., a Corporation of Missouri. Filed Aug. 9, 1920. Serial No. 402,295. 13 Claims. (Cl. 33—133.)



1. In a fabric measuring machine, the combination of a pair of oppositely disposed movable members con-

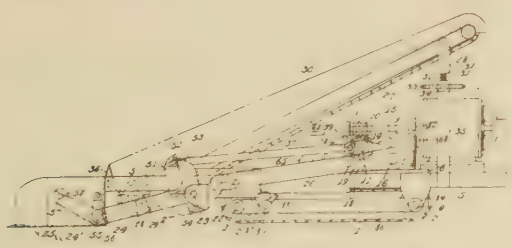
structed to receive the fabric therebetween, means for indicating substantially the amount of lineal movement of the movable members as the fabric passes therebetween, and a compensating device connected with the movable members and moving in unison continuously and proportionately therewith to prevent inaccuracies in the indicated measurement.

1,415,484. RAILWAY CAR DOOR. WILFRID SALMON, St. Paul, Minn. Filed Feb. 26, 1920. Serial No. 361,370. 10 Claims. (Cl. 20—23.)



5. The combination of sill castings with track portions, mounted in each corner of the sill of a door opening, and a car door, with wheels normally running on a rail, arranged to be lifted from the rail into the door opening and provided with guide wheels then running on the track portions.

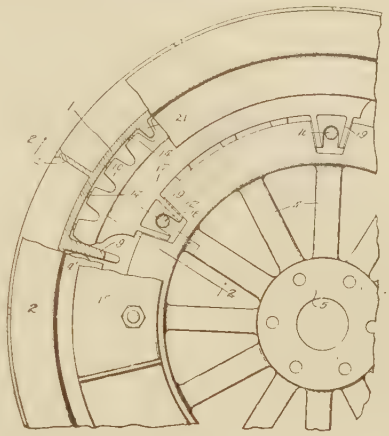
1,415,485. LOADING MACHINE. WILLIAM SCHLUTER, Jr., Bellaire, Ohio, assignor of one-third to C. H. Dankworth and one-third to G. W. Dankworth, Bellaire, Ohio. Filed Mar. 29, 1921. Serial No. 456,724. 11 Claims. (Cl. 214—90.)



1. A loading machine comprising a tractor, a frame carried thereby, slides mounted on said frame, means for reciprocating said slides, arms pivoted to said slides, a scoop pivotally connected to said arms, and means acting upon said arms at the limit of the forward movement of the scoop for elevating said arms to scoop dumping position.

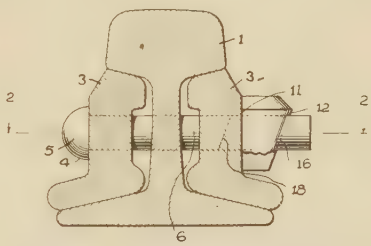
1,415,486. RESILIENT WHEEL. ALBERT L. SCHULTZ, Pittsburgh, Pa. Filed Feb. 11, 1920. Serial No. 357,982. 10 Claims. (Cl. 152—36.)

1. As intermediaries between the inner and outer rim members of a resilient wheel in which the inner rim member has outwardly flaring socket formations, cushioning members each comprising a substantially integral cushion in direct contact with both rims and with the socket formations, and a metal reinforcement imbedded in the cushion and having portions conformably extending into



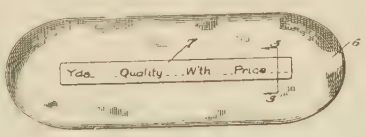
the socket formations but kept from direct contact with the latter by parts of the cushion.

1,415,487. BOLT. MARCEL K. SESSLER, New York, N. Y. Filed Mar. 29, 1919, Serial No. 286,144. Renewed Oct. 8, 1921. Serial No. 506,486. 19 Claims. (Cl. 238—260.)



16. In combination, two metallic plates, a bolt passing transversely thereof, a staple formed wedge straddling said bolt, said bolt being grooved to accommodate the legs of said wedge, one face of said wedge resting against one of said plates and one of said legs having a shelf, as and for the purpose described.

1,415,488. TAB HOLDER. EDWARD SEYFARTH, Dixon, Ill. Filed May 27, 1921. Serial No. 472,964. 4 Claims. (Cl. 40—22.)

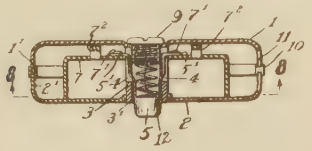


1. A tab holder comprising a tab-carrying body, a pair of slides, means for holding the slides on the tab-carrying body, and supporting means for said body comprising wire arms, each connected to one of said slides whereby to be adjustable to accommodate centerboards of different width.

1,415,489. POCKET TAPE. ROBERT J. SIMPSON, Athol, Mass. Filed Nov. 5, 1921. Serial No. 513,142. 3 Claims. (Cl. 33—138.)

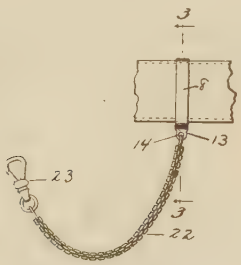
1. In a pocket take, a casing comprising a pair of shells, a central post on one shell, a rotatable tape spool

on said post, and an interposed strip of greater width than the thickness of the shell edges and channelled to receive the shell edges, and a screw engaging said cen-



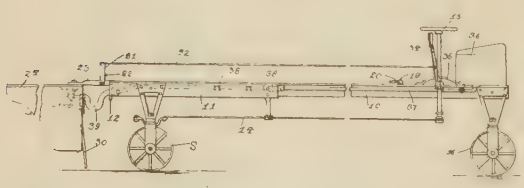
tral post and passing through the other shell for drawing the shells together with their edges lodged in said channels.

1,415,490. BELT LOOP FOR CHAINS. EZRA S. SMITH, Attleboro, Mass., assignor to R. F. Simmons Company, Attleboro, Mass., a Firm. Filed Feb. 1, 1922. Serial No. 533,312. 1 Claim. (Cl. 24—3.)



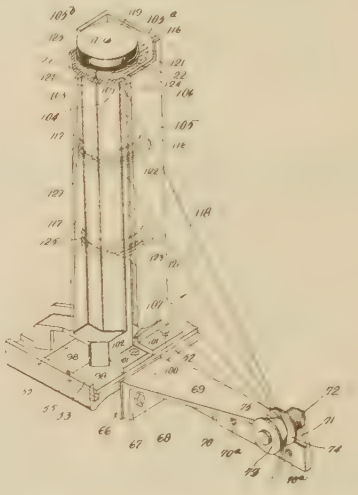
In a belt loop, a flat resilient arm comprising a body portion, an inwardly bent shoulder provided with an opening, and a depending portion, a second flat resilient arm integrally connected at one end to the body portion of the first arm, an inwardly directed convexo concave finger upon the lower end of the second arm provided with a reduced end movable through the opening to engage the body portion of the first arm, and a chain upon the depending portion of the first arm.

1,415,491. WEED AND INSECT BURNER. LEWIS FREAMON SOUTHER, Larson, N. Dak. Filed Dec. 11, 1920. Serial No. 430,038. 2 Claims. (Cl. 126—271.2.)



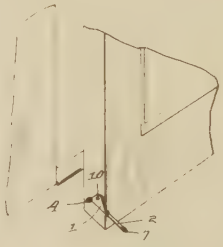
1. A weed and insect destroyer comprising a deflector plate, an angle iron supporting member, said member having one flange thereof secured to the lower face of said plate, brackets depending from said flange, burner means carried by the brackets, a drag plate hinged to the lower portion of the remaining flange of said angle iron supporting member, and means for pivotally connecting said deflector plate to a support.

1,415,492. APPARATUS FOR AUTOMATICALLY FEEDING WIRE FILLING UNITS TO WIRE-FABRIC SHUTTLES. WILLIAM S. SOUTHWICK, Clinton, Mass., assignor to Wickwire Spencer Steel Corporation, Worcester, Mass., a Corporation of Massachusetts. Filed Mar. 5, 1921. Serial No. 449,835. 5 Claims. (Cl. 139—85.)



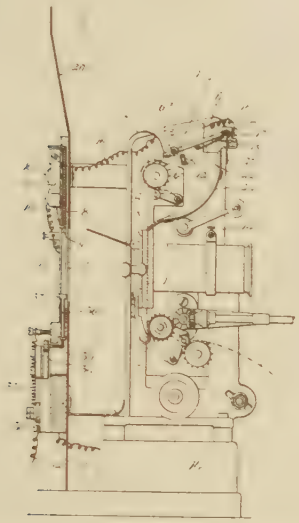
2. In a loom for weaving wire fabric, a lay, a shuttle carried thereby, a magazine to the front of the lay constituted to hold a series of filling units, means associated with each unit to yieldingly resist the unwinding of its filling, a slot on one side of said magazine, a notch in the wall of said magazine near its lower end connecting with the said slot, a series of filling units in said chamber, the free end of each filling passing through the said slot, a tension connected to the end of each filling, a guide for said fillings between said slot and said tension, means for keeping said tension separated, means for transferring the filling unit from the magazine to the shuttle, the free end of each filling automatically passing from said slot into said notch, co-operating parts upon said unit and said magazine to maintain said units in a predetermined path in their passage through and out of said magazine.

1,415,493. COMBINED DOOR CHECK AND BUFFER. DANIEL H. STRAYER, Los Angeles, Calif. Filed June 7, 1921. Serial No. 475,575. 6 Claims. (Cl. 16—86.)



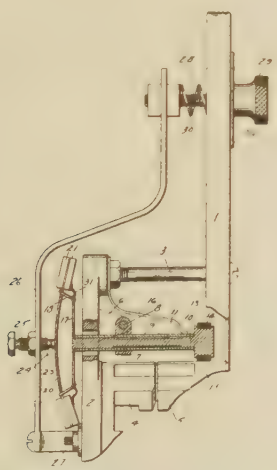
4. A structure of the class described comprising a member adapted to be pivotally mounted on the edge of a door and having an elongated portion normally projecting outwardly from the plane of the door, means carried by said member contacting with the door jamb when the door is closed for pivoting said elongated portion from its normal position, and means carried by said elongated portion for yieldingly contacting with the side of the door when said elongated portion is pivoted from its normal position during the door closing operation.

1,415,494. SAFETY DEVICE FOR CINEMATOGRAPH PROJECTING APPARATUS. FRIEDRICH STEIN, Villingen, Germany. Filed Aug. 5, 1921. Serial No. 490,126. 1 Claim. (Cl. 88—17.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



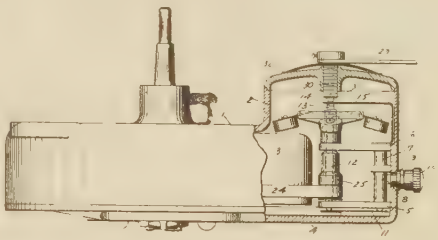
A fire-preventing device for cinematographic apparatuses in which a shutter intercepting the light rays of the projection lamp is released when the film breaks above the first sprocket or when it piles up below the same, comprising in combination with two feed sprockets, a contact lever resting on the film in front of the first of said feed sprockets and coming into operation when the film breaks above this first feed sprocket, a second contact lever which when the feed fails is raised by the loop of the film rising between said two feed sprockets, and a common pivot pin for said two contact levers.

1,415,495. GOVERNOR FOR ELECTRICAL CIRCUITS. EDWARD J. TOMLINSON, East Orange, N. J., assignor to Splitdorf Electrical Company, Newark, N. J. Filed Apr. 7, 1919. Serial No. 288,385. 8 Claims. (Cl. 200—80.)



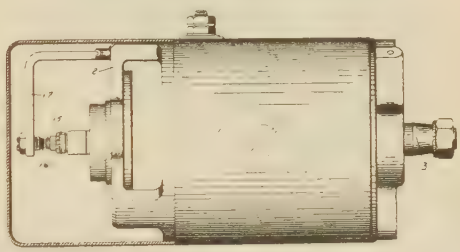
1. In a governor for an electrical circuit, the combination of a bearing support carrying a rotatable shaft, a member supported on the end of said shaft and extending at right angles thereto and having its ends upturned, a flexible member supported on said upturned end and having weights fastened to the ends thereof, a contact carried by said flexible member and a member carrying a contact to cooperate with the first contact for the purpose described.

1,415,496. GOVERNOR FOR ELECTRIC CIRCUITS. EDWARD J. TOMLINSON, Newark, N. J., assignor to Splitdorf Electrical Company, Newark, N. J. Filed June 22, 1920. Serial No. 390,984. 8 Claims. (Cl. 200—80.)



1. In a governor for an electrical circuit the combination of, an operating shaft with means for supporting and driving the same, a member carried by said shaft having a plurality of slots diametrically opposite each other, a groove in said member opening into said slots, a resilient member carried in said slots and having weights on its extremity outside said member, a resilient member carried in said groove for holding said first mentioned resilient member in place in said slots, a contact carried by the last mentioned resilient member and a relatively stationary contact for co-operating with the first mentioned contact.

1,415,497. AUTOMATIC CUT-OUT FOR ELECTRIC GENERATORS. EDWARD J. TOMLINSON, Newark, N. J., assignor to Splitdorf Electrical Company, Newark, N. J. Filed June 22, 1920. Serial No. 390,985. 8 Claims. (Cl. 200—80.)

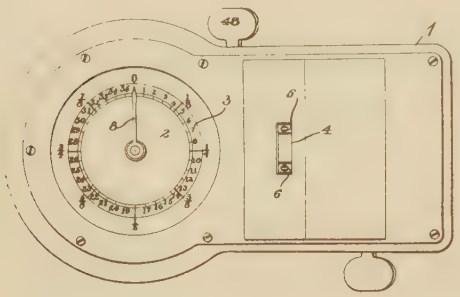


1. In an automatic cut-out for electrical generators, the combination of an operating shaft, a stud member fastened thereto, a cross member attached to said stud, weights pivoted to said cross member near its extremities, fingers on the ends of said weights, a pair of cooperating contacts and a flat spring having notches to receive said fingers operative upon movement thereof to close the contacts.

1,415,498. FABRIC-MEASURING AND COST-COMPUTING MACHINE. DOUGLAS TURNER, St. Louis, Mo., assignor to The Measuregraph Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 13, 1920. Serial No. 409,834. 8 Claims. (Cl. 235—91.)

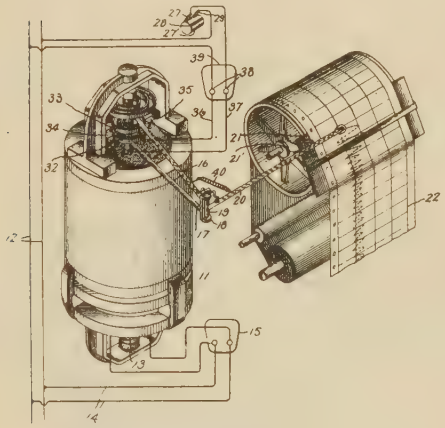
1. In a measuring machine, the combination of an indicator including a pointer for indicating fractions of the unit of measure, a totalizer mechanism having a plurality of counter-wheels carrying numbers for indicating quantities in the unit of measure, a measuring roller, a clutch

for driving the indicator pointer from the measuring roller, a second clutch for driving the totalizer mechanism from the measuring roller, a hand-operated member,



means actuated thereby for opening both clutches, and means also actuated thereby for returning the indicator pointer and the counter-wheels to their zero position when the clutches are open.

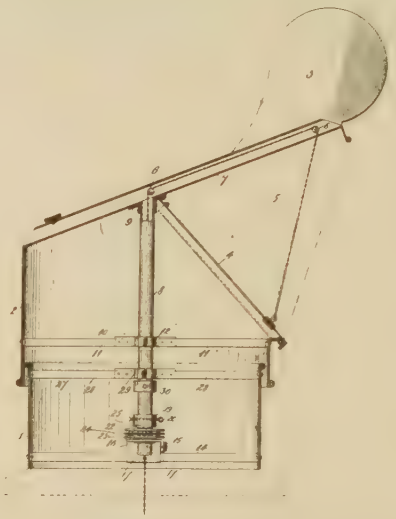
1,415,499. RECORDER. JAMES N. TUTTLE, Boston, Mass., assignor to General Electric Company, a Corporation of New York. Filed Oct. 13, 1919. Serial No. 330,257. 4 Claims. (Cl. 234—55.)



1. In a recorder, a record sheet provided with a surface sensitive to heat, a heated stylus relatively movable thereto, and means for periodically moving said stylus to and from the surface of said sheet, said surface being adapted to indicate where the stylus has been in contact therewith.

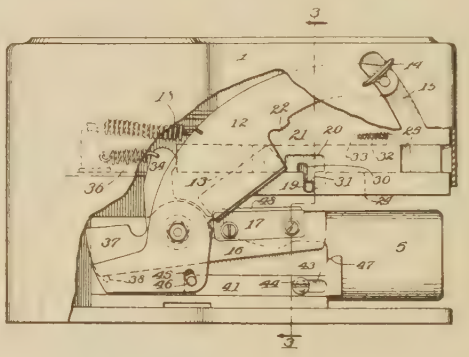
1,415,500. VENTILATOR. EZEKIEL VAN NOORDEN, Brookline, Mass., assignor to E. Van Noorden & Co., Boston, Mass., a Voluntary Trust Association. Filed May 6, 1920. Serial No. 379,262. 5 Claims. (Cl. 98—3.)

3. In a ventilator, having a lower member, an upper rotatable member, a post centrally arranged for supporting the upper member, means for fixing said post to one of said members, a bearing for said post fixed to the other of said members, an anti-friction device carried by said bearing, the combination therewith of a collar loosely arranged upon the post beyond said anti-friction device, and means for fixing the collar to the post whereby the post may turn upon an axis relatively to the collar, said collar being provided with an edge by which it has bearing



against said anti-friction device and thereby may turn thereon on an axis substantially at right angles to the first-named axis.

1,415,501. FLOATING SHEAR CONTROL FOR PRESSURE ROLLERS. JOHN L. WHEELER, St. Louis, and EDWIN A. REED, Maplewood, Mo., assignors to The Measuregraph Company, St. Louis, Mo., a Corporation of Missouri. Filed May 3, 1920. Serial No. 378,480. 12 Claims. (Cl. 33—130.)

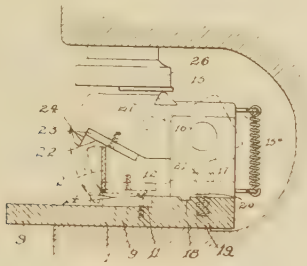


1. In a machine of the kind described, the combination of a measuring roller, a presser roller mounted to move toward or from the measuring roller and co-operating with the same, marking means for marking the fabric at the point where it is to be cut off, and including a hand actuated lever and a hand actuated part, the latter having locking means capable of co-operating with the lever to hold the hand actuated part against movement during the marking operation, and means for controlling the operation of the pressure roller by said hand actuated part.

1,415,502. METAL-TWISTING MECHANISM. WILLIAM J. YOUNG, Rochester, N. Y., assignor to Young's Wrought Iron Works, Rochester, N. Y., a Corporation of New York. Filed May 15, 1920. Serial No. 381,650. 15 Claims. (Cl. 153—78.)

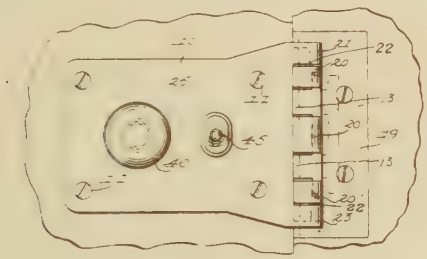
2. A machine for twisting flat metal strips comprising a pair of spaced clamps by which the strip is held, and a twisting mechanism operating between the clamps and embodying two dies cooperating with opposite edges

of the strip to move a portion of one edge laterally out of line with those portions held by the clamps and a



portion of the other edge into alignment with the portions of the first named edge held by the clamps.

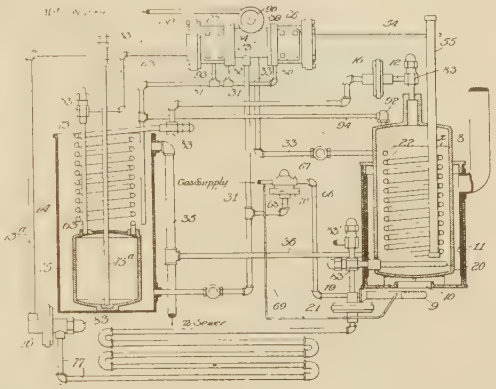
1,415,503. LOCK. ANDREW YUROW, New York, N. Y. Filed July 14, 1920. Serial No. 396,134. 2 Claims. (Cl. 70—46.)



2. A lock of the character described comprising a casing, a partition wall, transversely arranged in said casing, a skeleton bolt therein composed of a pair of side bars, operating plates at the inner ends of said bars, springs surrounding said bars between said partition wall and said operating plates, a cross-bar uniting said side bars at their front ends, projections on said cross bar adapted to normally engage the keeper, said keeper composed of three members, a central and two outer keeper members, one of said members provided with shoulders for the engagement by said projections of the cross bars, shoulders on said casing engaging the outer faces of the outer keeper members, one of the side bars of said bolt recessed at its lower edge, an operating member pivotally secured to the inner wall of the cover for said casing, an outer operating knob having a cylindrical stem extending into the casing and having its lower edge hammered down upon the inner face of said member and a pair of operating fingers on said member adapted to engage the operating plates at the ends of the bolt bars, for operating said bolt upon the operation of said knob, a sliding latch sliding between guides on the inner face of the casing wall, a rectangular bent arm on said latch provided with a hook at its outer end adapted to be engaged in the recess of said side bar, a pin on said latch extending through a longitudinal slot in the front wall of the casing to play therein, a slide plate on the outer end of said pin, and a slide socket surrounding said slot upon which said slide plate is gliding for locking and unlocking said bolt and its operating means.

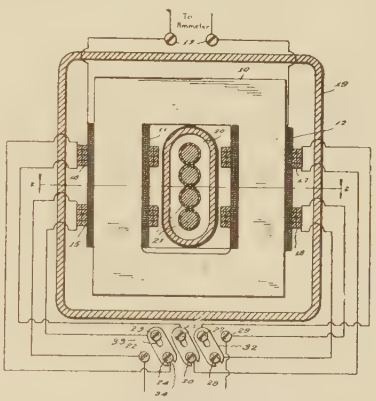
1,415,504. REFRIGERATING APPARATUS. JOHN ZANDER, Chicago, Ill. Filed May 17, 1916. Serial No. 98,038. 32 Claims. (Cl. 62—5.)

1. In refrigerating apparatus, the combination of generating means for gasifying a refrigerating agent in solution, condensing means for the gasified refrigerating agent in communication with said generating means, a refrigerating coil in communication with said generating means and said condensing means, means for supplying heat to said generating means, and means operated by fluid-pressure, operating automatically, to control



said last-named means to discontinue the supplying of heat to said generating means when the solution containing the refrigerating agent becomes weakened to a predetermined degree.

1,415,505. CURRENT TRANSFORMER. DONALD J. ANGUS, Indianapolis, Ind. Filed June 28, 1920. Serial No. 392,182. 13 Claims. (Cl. 175—361.)

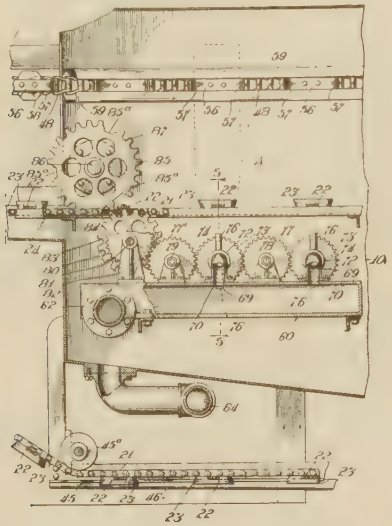


1. In a current transformer, a core having an opening through it, a plurality of primary windings on said core, a secondary winding on said core, said windings being permanently fixed on said core and passing through such opening and together being of materially smaller cross-section where they pass through such opening than such opening is itself so that when in place they still leave a relatively large clear passage through the same opening permitting the temporary insertion through such opening of one or more loops of a conductor to constitute another primary winding, and means for connecting the permanently fixed primary windings in different groupings to vary the ratio of transformation of the transformer.

1,415,506. WASHING MACHINE. GEORGE P. ANSTISS, Chicago, Ill., assignor to G. S. Blakeslee & Co., Chicago, Ill., a Corporation of Illinois. Filed Sept. 21, 1918. Serial No. 255,169. 22 Claims. (Cl. 141—1.)

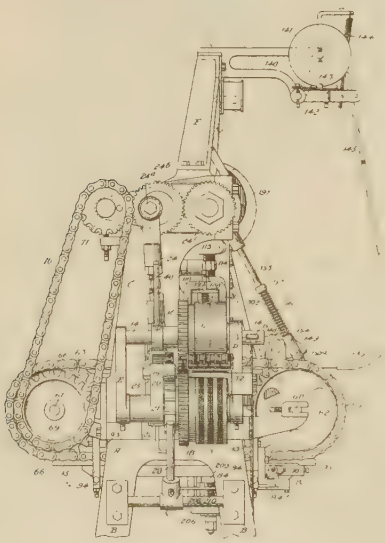
2. A washing machine comprising in combination a tank, a conveyor movable therethrough and comprising an endless chain, a track on which said conveyor-chain is movably supported, a rotatable toothed wheel located below said track and projecting through an opening in

the track and having its teeth in engagement with said chain, a second rotatable toothed wheel located above the track and also engaging said chain to prevent disengagement of such chain from the first-named wheel, means for holding a supply of water under pressure, in



which means is a port through which water is discharged against articles supported by said conveyor, a rotatable valve for controlling said port, and means interposed between said first-named wheel and said valve for rotating said valve.

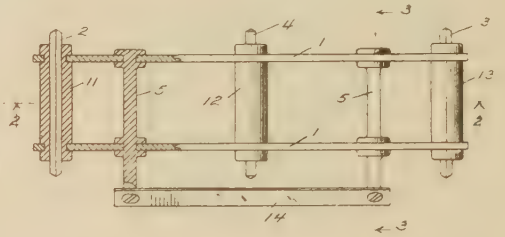
1,415,507. BOTTLE-CAP MACHINE. OREN F. BALTZLEY, Hagerstown, Md., assignor to The Smith-Lee Company, Oneida, N. Y., a Partnership composed of Wilbert L. Smith, Hurlbut W. Smith, and the Estate of M. C. Smith. Filed Sept. 28, 1920. Serial No. 413,388. 45 Claims. (Cl. 93—1.)



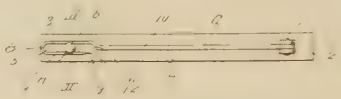
1. In a machine for making bottle caps or the like, the combination of means for holding a blank of material, and means for splitting a portion of such blank parallel to the surfaces thereof to form a tab.

1,415,508. SCALE-BEAM CONSTRUCTION. ERICH A. M. BANDOLY, Chicago, Ill. Filed Aug. 3, 1921. Serial No. 489,409. 4 Claims. (Cl. 265—49.)

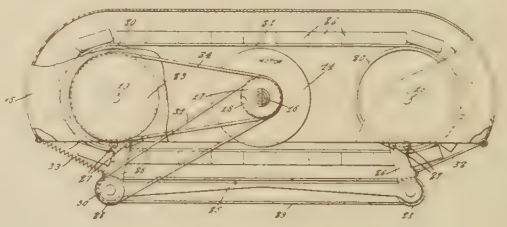
1. A scale beam comprising a metal beam having a transverse perforation, a bearing member of smaller cross-section than the perforation and extending through the latter, and a molded bushing tightly embracing the portion of the bearing member which extends through the



perforation and filling the space between the said member and the wall of the perforation and having opposed shoulders clamping the sides of the beam between them.

1,415,509. SAFETY CLASP. HARVEY V. BASLEY, Jersey City, N. J. Filed July 23, 1920. Serial No. 398,527. 5 Claims. (Cl. 24—150.)

4. A clasp of the type indicated comprising a pin, a pivotal support for the pin, a post to be engaged by the pin, the pin comprising a main part and a post-engaging part, the post-engaging part comprising a portion of the pin bent back upon itself to provide an opening adapted to receive the post, the post having a head thereon, the opening being of less width than the head, the post-engaging part of the pin being of resilient material whereby to render the walls of the opening resilient and adapted to snap over the head, and the material of the pin being shaped to provide a restricted passage into said opening adjacent the point of the pin.

1,415,510. SHOE-POLISHING DEVICE. JOHN BAUER, Detroit, Mich. Filed Sept. 8, 1919. Serial No. 322,289. 1 Claim. (Cl. 15—97.)

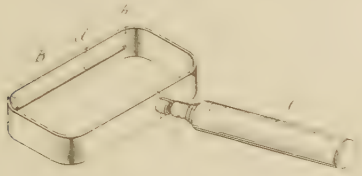


The combination with a housing adapted to be held in the hand, of a motor therein, an endless belt partly housed in said housing and driven by the motor, and buffing devices on the belt.

1,415,511. MOUNTING FOR READING LENSES. JOHN J. BAUSCH, Rochester, N. Y., assignor to Bausch & Lomb Optical Company, Rochester, N. Y., a Corporation of New York. Filed Aug. 31, 1920. Serial No. 407,180. 6 Claims. (Cl. 88—39.)

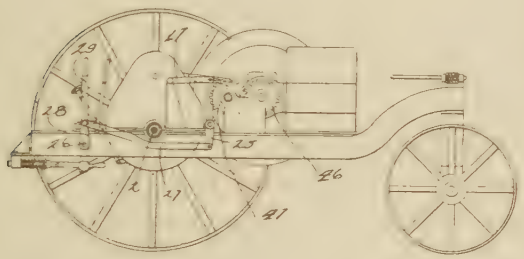
1. A holder for glass articles such as lenses, comprising a suitable frame embracing the edge of the article and provided with grooves in its inner opposed sides, in combination with the article, such as a lens, having

substantially straight edges in contact with the grooved sides of the frame, provided with grooves therein open



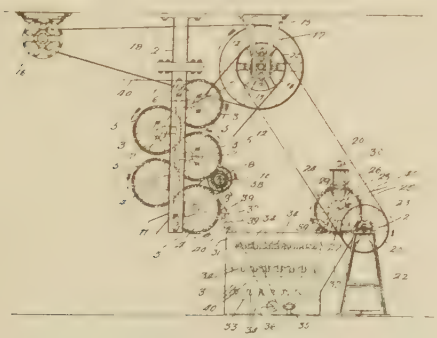
toward the outer side only and arranged adjacent the grooves in the frame, and the keys or rods arranged in both the grooves in the article and in the frame.

1,415,512. ADJUSTABLE TRANSMISSION MECHANISM. GEORGE G. BAYNE, Bushnell, Ill., assignor of one-fourth to John C. Hoehnen, one-fourth to Clement G. Branstrator, and one-fourth to Bayne Manufacturing Company, a Corporation of Illinois, Bushnell, Ill. Filed Apr. 29, 1920. Serial No. 377,428. 9 Claims. (Cl. 180—14.)



5. The combination with a tractor, of variable speed driving means therefor comprising an operating lever for the driving means, a shiftable fulcrum for said lever, a draw bar, a yielding abutment for said draw bar, and means for connecting said fulcrum and draw bar for varying the position of said fulcrum according to the load on said draw bar.

1,415,513. APPARATUS FOR AND METHOD OF DYEING MATERIAL. LUDWIG K. BIACH, New Haven, Conn. Filed July 13, 1920. Serial No. 395,965. 7 Claims. (Cl. 8—5.)

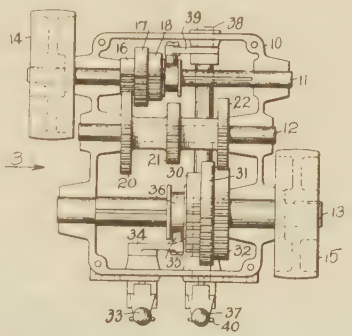


1. The method of dyeing which consists in first heating and superdrying substantially dry material to be dyed, and then subjecting the material to the action of the dyeing fluid.

1,415,514. CAMERA. JAMES STANLEY BISHOP, Cincinnati, Ohio. Fied Sept. 11, 1916. Serial No. 119,472. 14 Claims. (Cl. 95—1.1.)

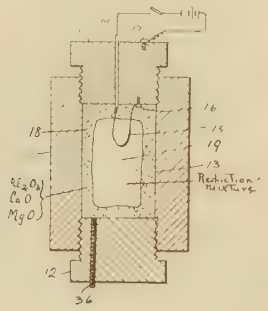
1. Means to mark a sensitized surface comprising a light-admitting element with a mark on one side, means whereby said side with the mark may be brought into photographic proximity with said surface, means for controlling admission of light to said surface past said mark, whereby light is excluded from said part of said surface except for short periods during approach and recession of said mark toward and away from said part of said surface, and means impeding the action of said light sufficiently to prevent material action thereof on said part of said surface during said periods, but permitting the desired action of the light thereon while said mark is for a longer period held in said photographic proximity to said part of said surface.

1,415,515. CHANGE-GEAR MECHANISM. CONSTANT BOUILLON, Torrington, Conn., assignor to Hendey Machine Company, Torrington, Conn., a Corporation of Connecticut. Filed Aug. 11, 1920. Serial No. 402,811. 2 Claims. (Cl. 74—58.)



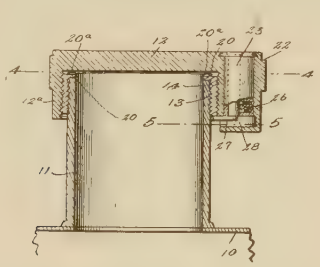
1. A change gear mechanism comprising a driving shaft, an intermediate shaft and a driven shaft, a set of three gears forming a unit rotatable with and slidable on said driving shaft, a second set of three gears forming a unit rotatable with and slidable on said driven shaft, a third set of three gears mounted in fixed angular and spaced relation on said intermediate shaft, and means to slide said first and second sets of gears longitudinally relatively to said third set of gears, each intermediate gear being adapted to mesh directly with one driving gear and with one driven gear.

1,415,516. METHOD OF AND APPARATUS FOR REDUCING METALS, ETC. ARTHUR BRIDGE, Washington, D. C. Filed May 29, 1919. Serial No. 300,587. 9 Claims. (Cl. 75—17.)



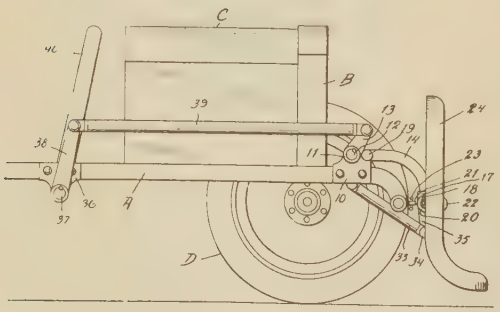
1. A method of reduction which consists in disposing within a closed, air-tight, pressure resisting chamber a mass of mixed materials of such a nature that they will undergo thermal reaction upon initial ignition, insulating said mass from the walls of the chamber, and causing an initial ignition of the mass to thereby effect reduction.

1,415,517. LOCK FOR RADIATOR CAPS. FRANCIS NATHANIEL BROWN, Jr., El Paso, Tex. Filed Nov. 19, 1920. Serial No. 425,253. 5 Claims. (Cl. 70—90.)



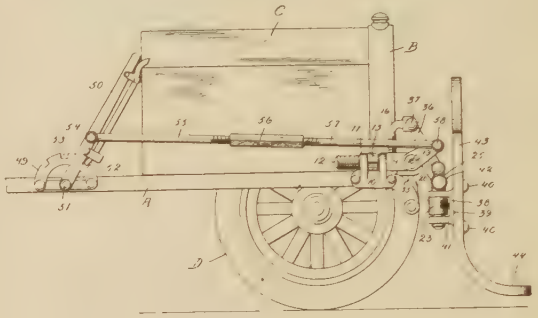
4. In a device of the character described, a radiator having a filling neck, a cap for the filling neck of the radiator, a sleeve providing for connection between the cap and the neck and having a portion constituting an abutment and locking mechanism carried by the cap and including a bolt engageable with the abutment of the sleeve for releasably securing the cap on the filling neck.

1,415,518. SAFETY FENDER FOR AUTOMOBILES. THOMAS F. BUCK, New Castle, Pa. Filed Dec. 16, 1921. Serial No. 522,832. 8 Claims. (Cl. 293—34.)



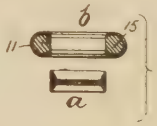
1. A safety fender for motor vehicles comprising bracket members secured upon the forward ends of the frame bars of the vehicle, a rock shaft journaled through said brackets, arms carried by said shaft, a fender proper carried by said arms and detachably associated therewith, adjustable link members pivotally connected with the frame and with said arms, and means for rocking said shaft.

1,415,519. SAFETY FENDER FOR AUTOMOBILES. THOMAS F. BUCK, New Castle, Pa. Filed Jan. 6, 1922. Serial No. 527,439. 8 Claims. (Cl. 293—34.)



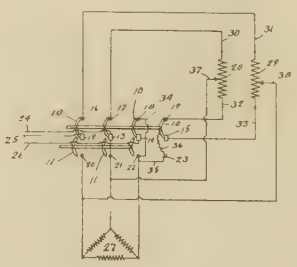
1. A device of the character described comprising brackets secured upon the forward portions of the frame bars of an automobile, a rock shaft journaled through said brackets, arms carried by said rock shaft, lever operated means for rocking the rock shaft, a bar carried by the arms, and a fender proper detachably mounted upon said bar, the detachable mounting consisting of T's mounted on the ends of said bar, rearwardly extending U-shaped brackets carried by the fender proper and straddling said T's, and removable pivot pins passing through said brackets and through said T's.

1,415,520. METHOD FOR MAKING COMPOSITE RINGS. ANDREW O. BURGESS, Newark, N. J., assignor to A. L. Newman Company, Providence, R. I. Filed Oct. 1, 1920. Serial No. 414,009. 3 Claims. (Cl. 29—160.6.)



1. A method of making a composite ring comprising the provision of a ring of metal, the provision of a sheet of metal, folding the sheet around the ring so that the edges of the sheet are at the inner face of the ring, and then cutting away the inner edge of the ring and of the folded sheet.

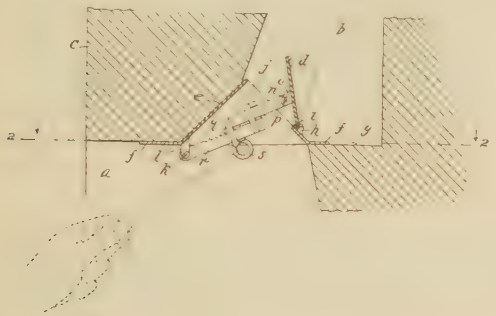
1,415,521. MOTOR-STARTING DEVICE. GEORGE A. BURNHAM, Saugus, Mass., assignor to Sears B. Condit, Jr., Brookline, Mass. Filed Aug. 2, 1918. Serial No. 247,975. 8 Claims. (Cl. 172—179.)



7. A motor starting device including a manually operable switch movable into a starting position for the start-

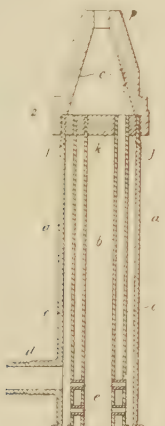
ing of the motor and movable into a running position for the running of the motor, an auxiliary switch controlled by the aforesaid switch, a motor-starting transformer having generally open-ended coils, and an electrically controlled contactor controlled by said auxiliary switch to interconnect said normally open-ended coils for the starting of the motor.

1,415,522. FIREPLACE DAMPER. HARRY N. CAIN, Cleveland, Ohio, assignor to The Donley Brothers Company, Cleveland, Ohio, a Corporation. Filed May 4, 1918. Serial No. 232,432. 2 Claims. (Cl. 126—288.)



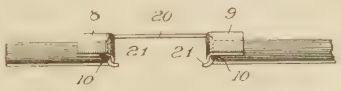
1. A regulating device of the class described comprising a pair of substantially parallel bars, the upper bar having a detent-shaped end with a guideway loop for the lower bar and a handle depending therefrom, and the lower bar being provided with ratch-teeth engageable with said detent to prevent shortening of the device and having a guideway loop for the upper bar mounted upon its inner termination.

1,415,523. SPRAYING AND DISTRIBUTING NOZZLE. PETER CAMERON, Methil, Scotland. Filed Jan. 3, 1920. Serial No. 349,261. 1 Claim. (Cl. 299—115.)



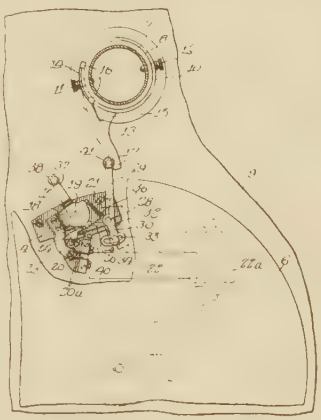
A nozzle comprising a plurality of concentric tubes forming a central passage and two annular passages, a conical extension carried by the external tube, partitions between said extension and two of said tubes, said partitions having a plurality of oppositely disposed helical ports communicating with said extension and tubes, transfer ports communicating with the outer and central passages, said annular passages each having an inlet and said extension being provided with an outlet orifice.

1,415,524. METHOD OF MENDING ELECTRIC RESISTANCE ELEMENTS. NOEL CARRICO, Sidney, Mont., assignor of one-half to Frank C. Hughes, Evanston, Ill. Filed Jan. 22, 1921. Serial No. 439,189. 2 Claims. (Cl. 219—10.)



1. The method of mending an electric resistance element in place in its mounting by bringing the broken ends in contact with the ends of a bridging member and passing through the element and said bridging member the current which normally operates the translator of which the element is a part.

1,415,525. CONTROL MEANS FOR SOUND-REPRODUCING MACHINES. FOREST CHENEY, Chicago, Ill., assignor to Cheney Talking Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 14, 1917. Serial No. 201,921. 2 Claims. (Cl. 192—116.)



1. In a sound reproducing machine, in combination, a motor for actuating a record, a switch in the motor circuit, a latch for holding said switch in closed position, tripping mechanism for operating said latch adjustable with respect to said latch to time the occurrence of the tripping action, said tripping mechanism including two relatively movable members, one of which members engages said latch, a projection secured to the tone arm and arranged to engage the other member of said tripping members under certain conditions, and a spring for actuating the tripping mechanism to open said switch when one member of said tripping mechanism is engaged by said projection.

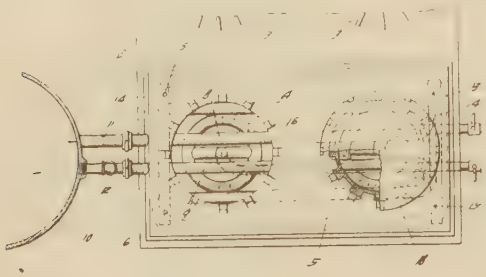
1,415,526. PROCESS FOR RECOVERING SELENIUM AND NOBLE METALS FROM ELECTROLYTIC SLIMES AND THE LIKE. MASUMI CHIKASHIGE and DENZO UNO, Kyoto, Japan. Filed Oct. 1, 1919. Serial No. 327,736. 5 Claims. (Cl. 75—17.)

1. A process for treating material containing non-metallic elements of the sulphur group and the noble metals, comprising fusing the same in the presence of a collector of the noble metals and an alkali metal flux, and recovering the non-metallic elements of the sulphur group and the noble metals from the fusion-products.

1,415,527. WATER HEATER FOR GAS STOVES. CLIFFORD E. COLE, Birmingham, Ala., assignor to Linka L. Cole, Birmingham, Ala. Filed Oct. 20, 1919. Serial No. 332,043. Renewed Oct. 13, 1921. Serial No. 507,490. 5 Claims. (Cl. 126—53.)

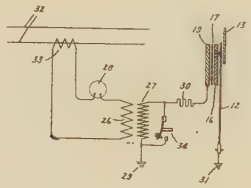
1. A water heating attachment for gas stoves comprising a casting having a top and marginal flanges forming

an open-bottom chamber therein, a water heating coil mounted in the chamber formed under said casting, said casting being provided with openings in its top under which portions of the coil pass, raised marginal lugs



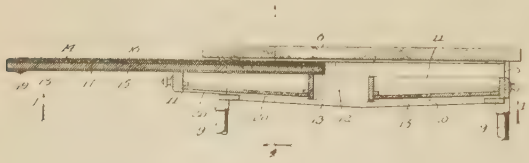
surrounding said openings, and a lid closure for said openings having a depending notched flange disposed in juxtaposition to said lugs and adapted to co-operate therewith, as and for the purposes described.

1,415,528. RECORDING INSTRUMENT. JAMES R. CRAIGHEAD, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Oct. 17, 1919. Serial No. 331,282. 7 Claims. (Cl. 234—5.5)



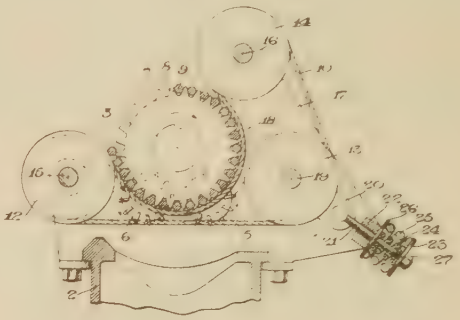
1. An electrical recording instrument of the type in which an electric discharge is caused to make a record on a recording sheet, said discharge passing between two electrodes, one of which is moved relative to the recording sheet in response to the quantity to be measured, characterized by the fact that means are provided for producing said discharge which derives its energy from the measured circuit and is independent of the voltage thereof.

1,415,529. COMBINED KITCHEN TABLE AND IRONING BOARD. GEORGE J. CRONENBERGER, Chicago, Ill., assignor of one-half to Hobart G. Miller, Chicago, Ill. Filed July 15, 1919, Serial No. 311,003. Renewed Sept. 26, 1921. Serial No. 503,382. 6 Claims. (Cl. 68—10.)



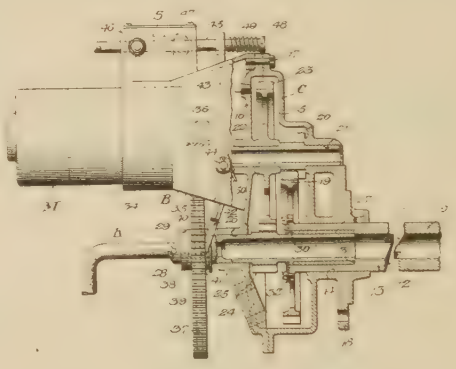
6. In an article of the character set forth, the combination of a table having a top, an ironing-board supported on said table to be moved into and out of a position in which it extends laterally beyond the table, a drawer slidably mounted on the table and extending beneath said ironing-board and serving when drawn outwardly, as a support for the board when the latter is in extended position for use, and means operating automatically in the act of drawing said drawer outwardly to clamp said board in place.

1,415,530. FEEDING AND CLAMPING MEANS FOR METAL-WORKING MACHINES. FRANK M. DAVIS, Milwaukee, Wis. Filed Dec. 31, 1920. Serial No. 434,307. 7 Claims. (Cl. 90—20.)



1. In a metal-working machine, the combination of a movable work carrier, a cutting tool, and a band travelling with the work carrier during the cutting operation and held under tension to clamp the work against movement between it and the carrier.

1,415,531. ENGINE-STARTING APPARATUS. JAMES KENDALL DELANO, New York, N. Y. Filed Sept. 28, 1918. Serial No. 256,126. 14 Claims. (Cl. 290—38.)

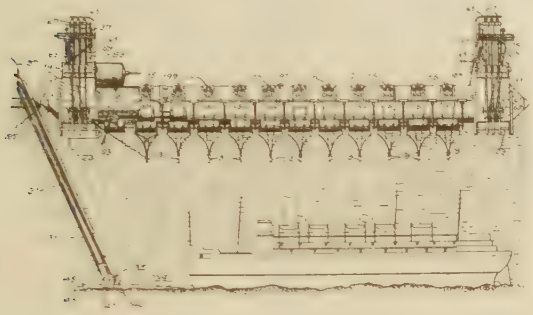


1. Engine starting apparatus comprising a shiftable shaft adapted for manual operation to start the engine, in combination with power operable means adapted to operate said shaft to start the engine, said shaft being alternatively operable manually or by said power means, and speed-changing mechanism for transmitting power from said shaft to the engine at a different speed from that applied to said shaft manually or by said power means.

1,415,532. APPARATUS FOR RAISING SUNKEN VESSELS. JOHN A. DE VITO, Medford, Mass. Filed Dec. 30, 1920. Serial No. 434,122. 24 Claims. (Cl. 114—53.)

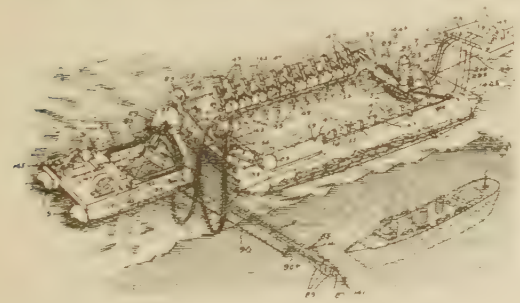
1. An apparatus for raising sunken vessels, comprising, in combination, pontoons having series of supporting arms projecting therefrom, means connecting the ends of said pontoons having provision permitting movement of the pontoons toward or away from each other, a group of cylinders at each end of the pontoons having pistons and rods for relatively moving the pontoons, means to supply fluid to said cylinders to operate said pistons, racks for

said rods, lock dogs co-operating with said racks, cylinders having pistons therein, and connections including links



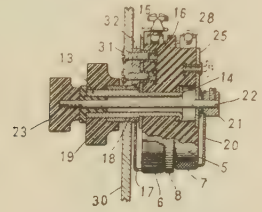
and levers between said dogs and last-named pistons for releasing the dogs from the racks.

1,415,533. APPARATUS FOR RAISING SUNKEN VESSELS. JOHN A. DE VITO, Medford, Mass. Filed Jan. 12, 1920, Serial No. 350,757. Renewed Dec. 7, 1921. Serial No. 520,720. 98 Claims. (Cl. 114—53.)



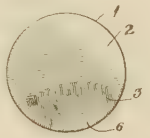
1. An apparatus for raising sunken vessels, comprising, in combination, pontoons, means to hold said pontoons in fixed spaced relation, that they may move as a unit down to opposite sides of a sunken vessel, means to move the pontoons in a direction of approach toward opposed sides of the sunken vessel, series of jaws mounted on said pontoons, and means differentially to move said jaws relatively to said pontoons to cause said jaws to engage and conform to the contour of the hull of the sunken vessel.

1,415,534. VARIABLE RESISTANCE. HAROLD POTTER DONLE, Meriden, Conn., assignor to The Connecticut Telephone & Electric Company, Incorporated, Meriden, Conn., a Corporation of Connecticut. Filed Dec. 15, 1921. Serial No. 522,460. 13 Claims. (Cl. 219—55.)



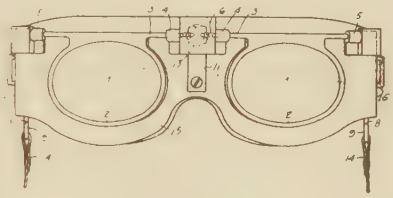
1. A resistance device of the character described, comprising an insulating body, resistance coils mounted on the front and rear thereof, adjustable contact arms for said coils, and operating knobs for such contact arms having a common axis.

1,415,535. MULTIFOCAL LENS AND METHOD OF MAKING THE SAME. THEODORE B. DRESCHER, Rochester, N. Y., assignor to Bausch & Lomb Optical Company, Rochester, N. Y., a Corporation of New York. Filed Feb. 27, 1922. Serial No. 539,429. 3 Claims. (Cl. 88—54.)



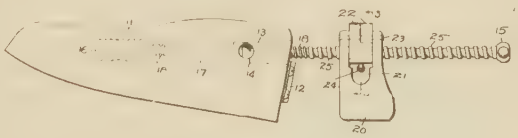
1. A multifocal lens comprising a single glass crystal having on one surface two adjacent areas having different surface curves and a smaller lens formed of glass of a different index from that of the other crystal embedded in the smaller of said areas, the opposite surface of said lens being finished on a curve coordinating with those of the opposite surface and with the embedded lens to produce a lens having three different powers.

1,415,536. PROTECTIVE GLASSES FOR FLYERS, CASTERS, WELDERS, ETC. NILS RICHARD GÖSTA EKWALL, Halmstad, Sweden. Filed Jan. 11, 1921. Serial No. 436,536. 4 Claims. (Cl. 2—149.)



1. Protective glasses comprising a frame adapted to be held in front of the eyes and movable glass or glasses on said frame, and means to move said glass or glasses by movements of the chin.

1,415,537. COMBINED SHOE STRETCHER AND TREE. ANSHELM BURTON ELMSTROM, Malden, Mass. Filed Nov. 20, 1920. Serial No. 425,399. 2 Claims. (Cl. 12—128.3.)

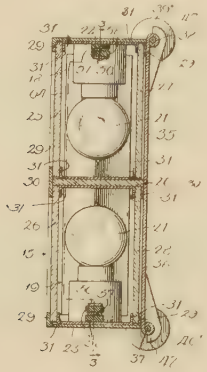


1. A combined shoe stretcher and tree comprising two connected but laterally separable last blocks, a threaded nut mounted in definite relation to said blocks, a heel piece having a separable nut mounted therein, and an operating rod having a thread fitting said first mentioned nut and having also a second thread of steeper pitch fitting said separable nut, said rod having means at its front end to separate said last blocks.

1,415,538. STOP AND TURN SIGNAL FOR VEHICLES. EMIL A. FEHRING, Chicago, Ill. Filed June 14, 1920. Serial No. 388,774. 10 Claims. (Cl. 116—45.)

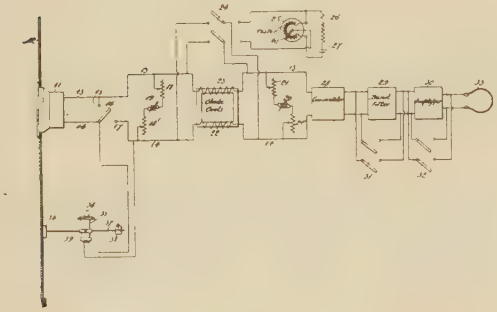
1. A signal device comprising a casing interiorly unobstructed to fore and aft passage of light rays there-

through, and provided with a front, uncovered lens and with a rear lens, said lenses bearing corresponding signal characters, the characters of said rear lens being legible both by through and reflected illumination of said rear



lens and the characters of said front lens being legible only by through illumination of said front lens, an opaque closure normally to cover said rear lens, and operating means for said closure.

1,415,539. METHOD AND APPARATUS FOR SUBMARINE SIGNALING. REGINALD A. FESSENDEN, Brookline, Mass., assignor to Submarine Signal Company, Portland, Me., a Corporation of Maine. Filed July 20, 1917. Serial No. 181,857. 5 Claims. (Cl. 177—352.)



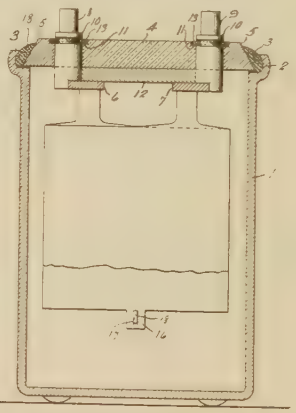
5. Means for detecting on board a vessel impulses originating from sources outside the vessel, which consists in a receiving means located on board said vessel and a compensating means also located on said vessel at a point where the pulsations of said vessel are substantially equal in amplitude and wave form to the vibrations of that part of the vessel at which the said receiving means is located but are in opposite phase thereto, and an indicator connected both to said receiving means and said compensating means whereby undesired impulses produced by the vessel in said receiving means will be neutralized by said compensating means and the desired impulses received on said indicator.

1,415,540. CARD HOLDER. HENRY W. FESSER, Sacramento, Calif. Filed May 25, 1921. Serial No. 472,410. 5 Claims. (Cl. 40—11.)

1. A device of the character described comprising a vertically disposed standard having a supporting base, a helical spring, secured at its center to the standard and having a plurality of its convolutions disposed on oppo-

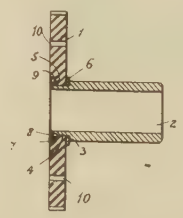
sides of the standard for supporting one or more cards or like articles to be displayed.

1,415,541. BATTERY. OLIVER P. FRITCHLE, Denver, Colo. Filed Apr. 12, 1920. Serial No. 373,220. 8 Claims. (Cl. 204—29.)



1. In a battery, a casing having at its upper end a recessed collar defining overhanging interior walls and a cover plate having upwardly beveled edges adapted to be seated in the recess of the collar.

1,415,542. GEAR CONSTRUCTION. GOTTLOB FUEGEL and HERMAN SCHMID, Brooklyn, N. Y., assignors, by mesne assignments, to Apollo Magneto Corporation, Brooklyn, N. Y., a Corporation of Delaware. Filed Dec. 27, 1918. Serial No. 268,555. 1 Claim. (Cl. 287—53.)



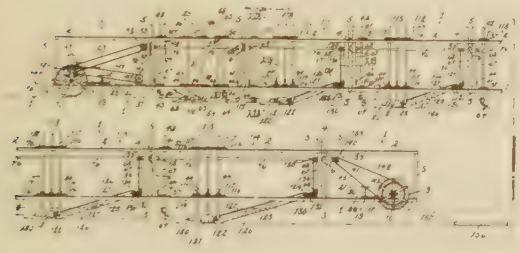
The combination of a gear wheel having a central opening and a shoulder surrounding said opening, a

washer engaging said shoulder, a hollow shaft having a shoulder at one end and a washer engaging the shoulder on said shaft, the gear wheel being fitted upon the shaft so that the gear wheel engages the washer on the shaft, the end of the shaft being expanded against the washer on the gear wheel, and a pin to engage the shaft and said last named washer.

1,415,543. CARTON. JOSEPH J. GANNON, St. Clair, Mich., assignor to Diamond Crystal Salt Company, St. Clair, Mich., a Corporation of Michigan. Filed Oct. 18, 1920. Serial No. 417,597. 7 Claims. (Cl. 229—7.)

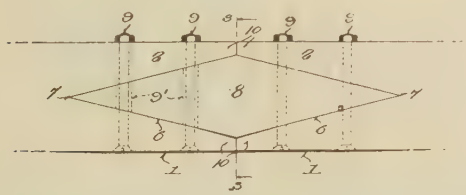
1. In a container or carton, the combination with a circular body, of a circular hinged lid or cover therefor, and a segmental flange on said cover for overlapping said body and limiting the width of the pouring opening.

1,415,544. EXCAVATING APPARATUS. STANDLEY GAUTEREAUX, Los Angeles, Calif. Filed Mar. 5, 1919. Serial No. 280,877. 25 Claims. (Cl. 37—25.)



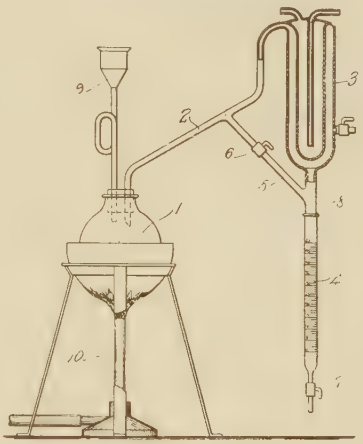
1. In an excavator, a frame; pairs of beams spaced apart and mounted in said frame; said beams adapted to move vertically independent of said frame; pairs of plows on the lower ends of said beams, said plows arranged so that one plow of each pair is in advance of the other; plates for limiting the movement of said beams; and a flexible connection between said plows and said frame.

1,415,545. RAIL SPLICE. SPIRO GEORGE, Milwaukee, Wis. Filed May 5, 1921. Serial No. 466,986. 1 Claim. (Cl. 238—219.)



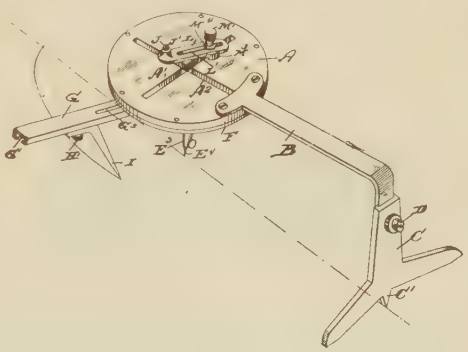
In combination with the contacting ends of a pair of rail sections having their heads provided with recesses and tapered downwardly at their abutting ends, a splicing member of diamond shape in plan positioned within said recesses, flush with the heads, the entire lower face of said member being flat and said member having a plurality of transverse openings therethrough, the greatest transverse dimension of said member being at the end of said rail sections, said rail sections having transverse apertures therethrough, and bolts extending through said openings and said apertures for locking said splicing member within said recesses.

1,415,546. APPARATUS FOR DETERMINING MOISTURE. FRANK E. GREENWOOD, New Rochelle, N. Y. Filed Sept. 10, 1920. Serial No. 409,466. 2 Claims. (Cl. 23—3.)



1. Apparatus for the determination of moisture content comprising an extraction flask, a reflux condenser, a conduit from the extraction flask to the upper portion of the condenser, a return connection from the lower part of the condenser to the extraction flask and a measuring receptacle connected with the condenser at a point below the return connection.

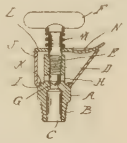
1,415,547. DRAFTING INSTRUMENT. DAVID GRIEVE, Detroit, Mich. Filed Dec. 12, 1921. Serial No. 521,674. 5 Claims. (Cl. 33—31.)



1. In an instrument of the class described, a plate having intersecting slots, a pair of slidable elements linked together mounted in the slots of the plate, a rotatable element carried by the plate having a central pivot pin, means carried by the plate co-operating with the pivot pin in supporting the instrument in spaced relation to a drafting board and in line with the predetermined axis of an ellipse to be described, a swinging beam pivotally connected with one of the slidable linked elements and adjustably connected with the slidable linked

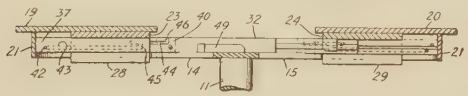
element and also with the rotatable element carried by the plate, and a scribing element adjustable upon the swinging beam.

1,415,548. PRIMING CUP. WILLIAM GRIKSCHEIT, Detroit, Mich. Filed Apr. 16, 1919. Serial No. 290,488. 5 Claims. (Cl. 123—187.5.)



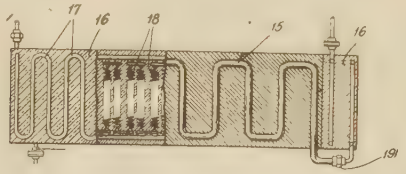
1. The combination of a member having an axial bore therethrough, externally threaded at one end and internally threaded at its opposite end, a valve member having a threaded portion for engaging the internal threads and a portion for engaging a seat upon said first-mentioned member, there being a transverse aperture in first named member above the seat when the valve is separated therefrom, and a sheet metal cup member of greater diameter than said first-mentioned member engaging the same, surrounding the portion having said transverse aperture.

1,415,549. EXTENSION TABLE. MEYER GROSSMAN, New York, N. Y., assignor of one-half to Adolph M. Deutsch, New York, N. Y. Filed July 16, 1919. Serial No. 311,136. 10 Claims. (Cl. 45—112.)



4. An extension table including, in combination, mated parts adapted to be drawn toward or away from one another, aprons depending therefrom, an auxiliary leaf detachably held substantially in parallelism under either one of said parts within the apron thereof and means arranged to bear from said leaf against said apron.

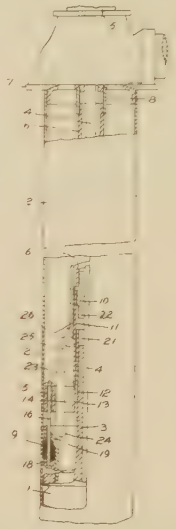
1,415,550. ELECTRIC HEATING APPARATUS. WILLIAM S. HADAWAY, Jr., New Rochelle, N. Y. Filed July 31, 1915. Serial No. 42,934. 46 Claims. (Cl. 219—37.)



1. The combination with a source of relatively low pressure steam, a radiator, a tubular distributing member interposed between the radiator and said source, heat insulation for the distributing member, and means for generating heat within the insulation to determine the temperature of the steam at the radiator.

1,415,551. WELL MECHANISM. SAMUEL N. HALL, Los Angeles, Calif., assignor to Mahlon E. Layne, Los Angeles, Calif. Filed Sept. 8, 1920. Serial No. 408,950. 7 Claims. (Cl. 166—1.)

1. In combination in a well mechanism, a well casing, a pump in the casing, a drive shaft extending upward therefrom, packing means between the well casing and pump supported from the surface of the ground, and

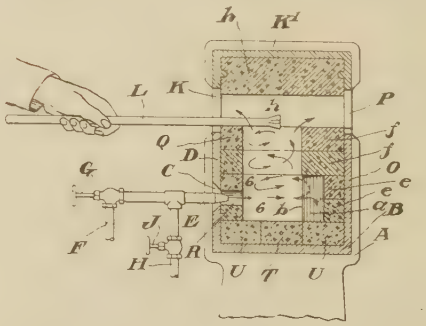


releasable therefrom, means on the pump engaging the packing whereby the weight of the pump is applied to said packing, and a shaft casing for the shaft.

1,415,552. PROCESS OF INCREASING THE QUALITY AND VOLUME OF OIL IN WELLS AND REMOVING THE OIL THEREFROM. ELMER C. HALLMARK, Mission, Tex., assignor to George M. Swift, Okmulgee, Okla. Filed Mar. 10, 1922. Serial No. 542,789. 1 Claim. (Cl. 166—21.)

A process for improving the quality and grade of oil prior to the final delivery thereof from the well, which consists in first mixing at the initial point of contact between the oil and gas the proper proportions of each and in such manner so as to cause the oil to absorb a portion of the gasoline contained in the gas, then in conveying the gas and oil while confined in contact to the point of final delivery from the well at a predetermined speed of travel of the gas and oil to said delivery point in accordance with the grade of the oil and the gasoline content of the gas.

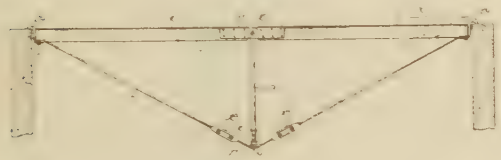
1,415,553. OIL-BURNING FORGE. CHARLES C. HANSEN, Easton, Pa., assignor to Ingersoll-Rand Company, Jersey City, N. J., a Corporation of New Jersey. Filed June 13, 1921. Serial No. 477,221. 4 Claims. (Cl. 263—9.)



1. An oil burning forge, comprising a casing having a renewable lining composed of blocks of refractory material, the lower central block being wedge shaped and projecting towards the fuel inlet of the forge in order to divide the flame vertically, the remaining blocks being of standard rectangular construction and the conforma-

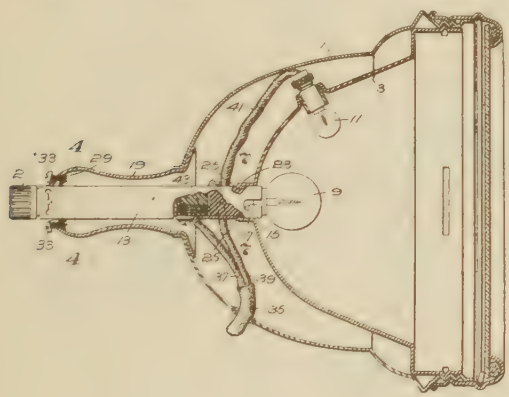
tion of the chamber being adapted to cause the portions of the divided flame to ascend at both sides of the central block in double spirals for heating the articles to be forged, thereby distributing the heat substantially throughout the whole chamber and retarding the flame to afford substantially complete combustion.

1,415,554. FLOOR CONSTRUCTION. ARTHUR G. HATCH, Duluth, Minn. Filed Jan. 31, 1921. Serial No. 441,202. 6 Claims. (Cl. 25—131.5.)



2. A truss adapted for use in supporting concrete forms, comprising a longitudinal compression member consisting of two sections pivotally connected by a pivot member, a transverse compression element having one end pivotally connected to said pivot, and longitudinal tension sections having their adjacent ends separably connected to the transverse compression element.

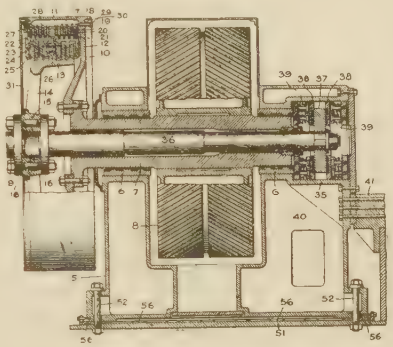
1,415,555. LAMP. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Continuation of applications Serial No. 105,282, filed June 22, 1916, and renewed Mar. 1, 1918, Serial No. 219,869 and Serial No. 149,088, filed Feb. 16, 1917. This application filed Apr. 2, 1920. Serial No. 370,850. 17 Claims. (Cl. 240—44.)



6. A lamp comprising an exterior casing, a housing projecting rearwardly from the back thereof and forming a handle for the lamp, a reflector in said casing, a light-carrying member disposed in said housing and extending through the reflector and the wall of the casing and joined to one of the same for non-rotary sliding movement whereby to adjust the focus of the light by rectilinear movement of the end of said member which projects through the housing, and means interposed between said member and the wall of the housing between the bearings of the member in reflector and casing, and bearing against said member to hold it fixed against undesired sliding movement relatively to the wall.

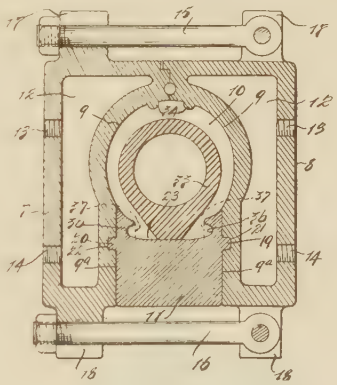
1,415,556. GEARING. CHARLES L. HEISLER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Apr. 9, 1920. Serial No. 372,628. 9 Claims. (Cl. 74—7.)

1. In combination, a gear casing, a low speed gear wheel having a quill shaft carried therein, a low speed shaft, a flexible coupling connecting it to one end of said quill shaft, an extension on said low speed shaft which



extends through said quill shaft to its other end, a thrust bearing for said extension, carried by the casing, and a fixed abutment to which said thrust bearing is fastened.

1,415,557. TIRE MOLD. ROBERT HELLER, Brooklyn, N. Y., assignor to Stanley Tire & Rubber Corporation of Delaware. Filed Jan. 29, 1920. Serial No. 354,854. 6 Claims. (Cl. 18—38.)

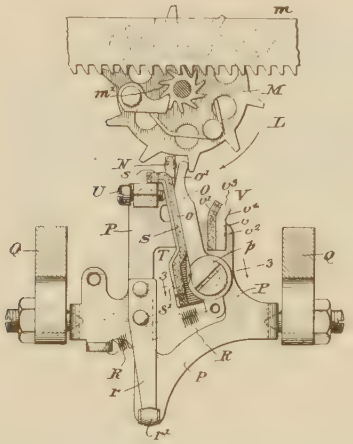


1. In a tire mold, a plurality of separably connected members, each member being recessed to form a chamber to receive the body portion of a tire when said members are connected, each member being further provided with a flat surface extending from the recessed portions, said flat surfaces being spaced from the center of the mold to form a channel, said flat surfaces each being provided with an annular groove, a bead engaging ring located in said channel, and ribs carried by said ring to engage the annular grooves.

1,415,558. TYPEWRITING MACHINE. EDWARD B. HESS, Manhattan Beach, and GEORGE F. HANDLEY, Glendale, N. Y., assignors to Royal Typewriter Company, Inc., New York, N. Y., a Corporation of New York. Filed Aug. 24, 1921. Serial No. 495,041. 7 Claims. (Cl. 197—82.)

1. In a typewriting machine, escapement mechanism comprising a dog rocker, fixed and limber dogs carried thereby, said limber dog having an extended bearing sur-

face and a bent outer end, a pad against which the limber dog strikes having an extended bearing surface for the



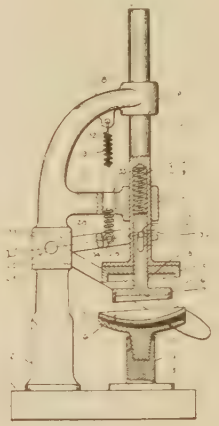
dog and bent ends removed from contact with the dog, and means for adjusting the position of the pad.

1,415,559. WATER-REPLENISHING DEVICE FOR STORAGE BATTERIES. GEORGE H. HICKMAN, Jamestown, Ind. Filed Mar. 1, 1920. Serial No. 362,569. 3 Claims. (Cl. 226—39.)

1. A water replenishing device for electric storage batteries comprising a primary cylinder having a pair of longitudinally disposed passageways of different lengths, the shorter passageway being of comparatively small size and having an opening connecting with the atmosphere intermediate its ends, said opening adapted to be closed by the finger of the operator.

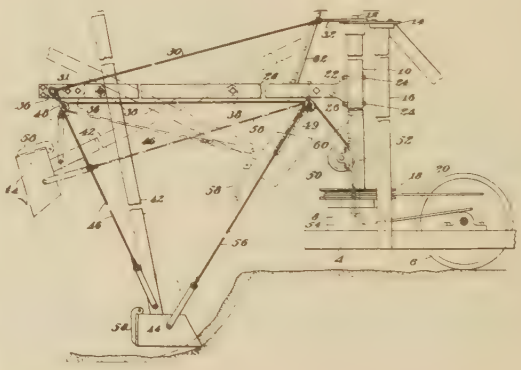
1,415,560. LENS-BLOCKING MACHINE. HARRY W. HILL, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts. Filed Jan. 18, 1919. Serial No. 271,874. 7 Claims. (Cl. 51—277.)

4. A lens blocking device including a lens block support, and a plunger in alinement therewith, said plunger having a head for engagement with the lens formed with its contacting face disposed at an oblique angle to the



direction of reciprocation of the plunger for tiltingly blocking a lens, substantially as and for the purpose described.

1,415,561. EXCAVATOR. PETER W. HILL, Dorchester, Mass. Filed Aug. 6, 1919. Serial No. 315,667. 2 Claims. (Cl. 214—135.)

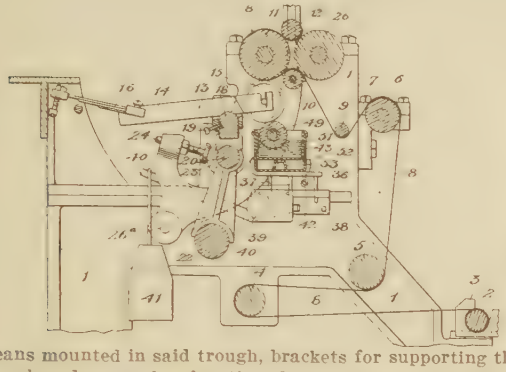


1. An excavator having, in combination, a mast, a boom supported by the mast and provided with an elongated guideway extending longitudinally thereof, an excavator dipper, a dipper handle extending through the guideway and working freely by gravity from end to end thereof during the operation of the dipper, and means for operating the dipper.

1,415,562. GUMMING DEVICE FOR RIBBON-CUTTING MACHINES. JOHN HENRY HOFFMAN, New York, N. Y., assignor to Theo. Tiedemann & Sons, Inc., New York, N. Y., a Corporation of New York. Filed July 26, 1918. Serial No. 246,859. 9 Claims. (Cl. 91—14.)

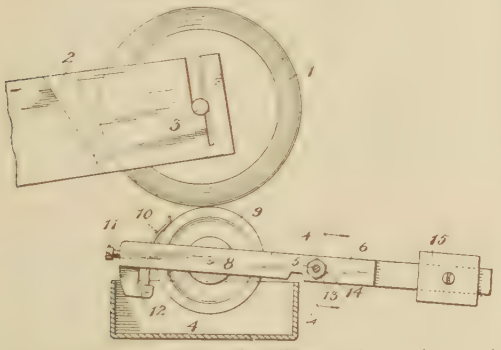
1. In a ribbon cutting apparatus or the like, the combination with a plurality of rotary cutters, rotary means for applying gum thereto, a trough from which said rotary gum applying means receives gum, and means for raising said trough.

9. In a ribbon cutting apparatus or the like, the combination with a cutter, a gum-containing trough, rotatable



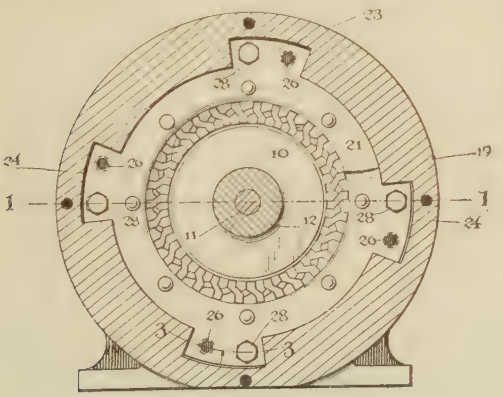
means mounted in said trough, brackets for supporting the trough and means for elevating the brackets and trough.

1,415,563. GUMMING DEVICE FOR RIBBON-CUTTING MACHINES. JOHN HENRY HOFFMAN, New York, N. Y., assignor to Theo. Tiedemann & Sons, Inc., New York, N. Y., a Corporation of New York. Filed July 26, 1918. Serial No. 246,860. 2 Claims. (Cl. 91—14.)



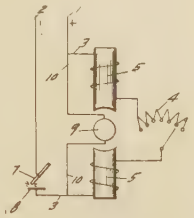
1. A gumming apparatus for ribbon to be cut into strips, comprising the combination of a rotary cutter, a roller adapted to bear frictionally against said cutter, a pivoted bar in which said roller is rotatably mounted, said bar having a reduced outer end and a weight slidably adjustable on said reduced portion.

1,415,564. MECHANICAL CONSTRUCTION OF ELECTRICAL MOTORS. JOHN JOSEPH HOLAHAN, Norfolk, Va. Filed Nov. 2, 1920. Serial No. 421,309. 5 Claims. (Cl. 172—36.)



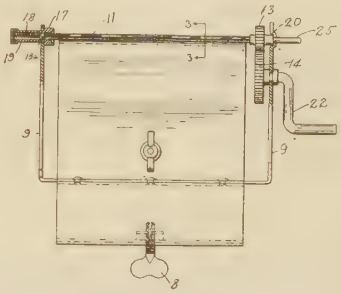
1. A motor including a stator, a frame having an inner seat for the stator on and off of which the latter is shiftable parallel to the axis of the rotor, and also having a removable side plate, and means for shifting the stator on to and off its seat, said means extending through portions of the stator and adapted for connection with the frame as described.

1,415,565. ARC-CURRENT REGULATOR. JOSEPH A. HOLIFIELD, Mobile, Ala. Filed Nov. 20, 1919. Serial No. 339,372. 8 Claims. (Cl. 219—15.)



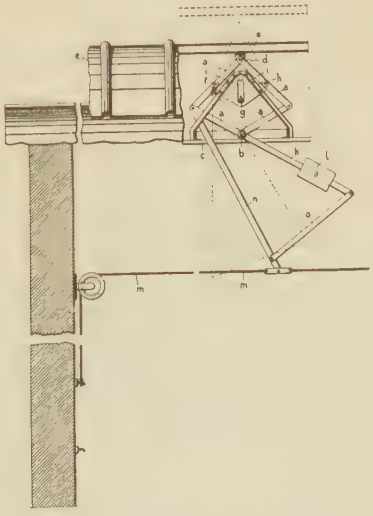
1. In an electric welding apparatus, a welding circuit having electrodes therein, means to interpose a resistance in the welding circuit, a by-pass circuit around said resistance, means to oppose a counter E. M. F. to the flow of current through the by-pass, and means to vary said counter E. M. F. automatically and directly responsive to the resistance of the arc.

1,415,566. MACHINE FOR MAKING BEADS. WALTER E. HORROCKS, Lakewood, Ohio. Filed June 1, 1920. Serial No. 385,859. 4 Claims. (Cl. 93—81.)



1. In a machine for winding paper beads or the like, the combination of a frame having bearings, a mandrel removable from said bearings, and a guide table mounted on the frame and extending under the mandrel.

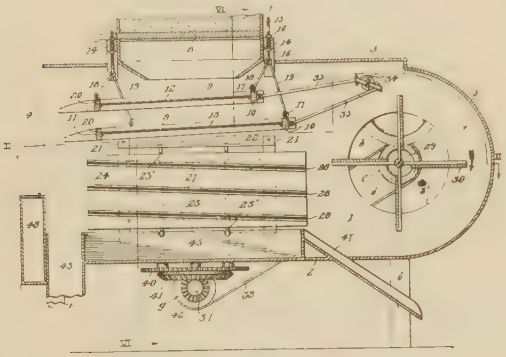
1,415,567. VENTILATING-HOOD-LIFTING DEVICE. PAUL HOSSFELD, Bad Harzburg, Germany. Filed Sept. 11, 1920. Serial No. 409,750. 4 Claims. (Cl. 268—22.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



1. In a device of the kind described in combination, a foldable frame having a fixed linking point, links pivoted

to two adjoining arms of said frame and having their free ends pivoted to each other and a vertical guide for guiding said free ends and means for operating said frame.

1,415,568. GRAIN SEPARATOR. DMITRO HRYNIEWICH, Livermore, Pa. Filed May 11, 1921. Serial No. 468,550. 2 Claims. (Cl. 130—15.)



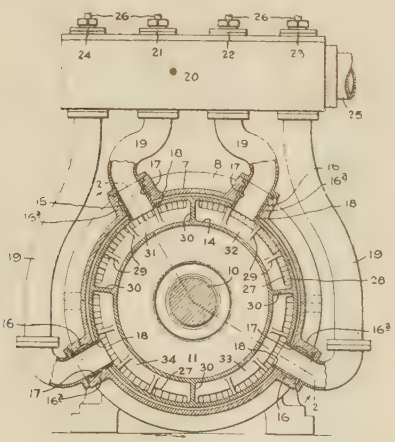
1. In a grain separator of the type described, a casing, a feed hopper for the upper end thereof, a set of screens within the casing arranged beneath the hopper, means for moving the set of screens in a circular path, said means including perpendicular side plates for removably supporting the screens, vertically disposed crank shafts carrying the side plates, and means for rotating said crank shaft.

1,415,569. [WITHDRAWN.]

1,415,570. POLISHING COMPOSITION OR MIXTURE. JAMES M. INOUYE, Ridgefield Park, N. J. Filed May 6, 1921. Serial No. 467,327. 5 Claims. (Cl. 134—24.)

1. A polishing composition comprising acetic acid, boiled linseed oil, turpentine, and benzyl ester, the whole being emulsified.

1,415,571. ELASTIC-FLUID TURBINE. OSCAR JUNGGREN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 29, 1920. Serial No. 392,776. 8 Claims. (Cl. 253—78.)

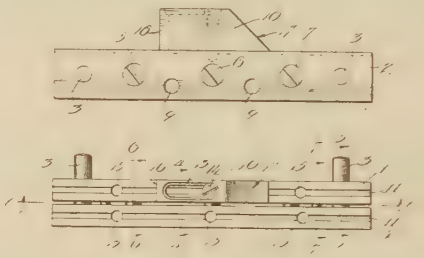


1. In an elastic fluid turbine, the combination of a casing, an annular elastic fluid chest located therein in spaced relation to the walls thereof, and radially-projecting, circumferentially-spaced, telescoping members carried by the casing and chest which have sliding engagement with each other and form a support for said chest whereby it is free to expand and contract radially in all directions.

1,415,572. PROCESS FOR THE RECOVERY OF POTASH FROM CEMENT MIXTURES. DANIEL D. JACKSON, Brooklyn, N. Y. Filed June 29, 1920. Serial No. 392,619. 3 Claims. (Cl. 23—22.)

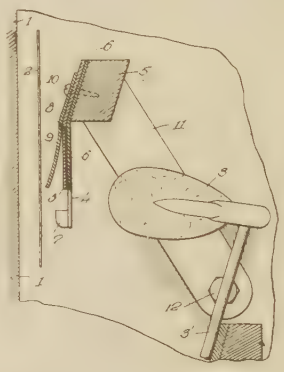
1. In the recovery of potash from cement mixtures containing potassium in insoluble form, the process of subjecting the cement mixtures in a kiln to such temperatures as are necessary to form them into cement, and introducing water vapor into the kiln during the operation to change the potash constituent of such mixtures into the form of hydroxide and volatilize it.

1,415,573. TEMPLET-FILING JAWS. THEODORE T. JANIS, Chicago, Ill. Filed Mar. 24, 1919. Serial No. 284,551. 4 Claims. (Cl. 33—185.)



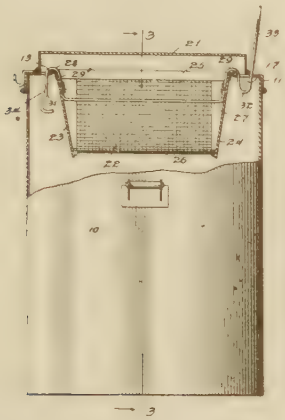
1. A device of the character described, comprising two bars of extremely hard steel and screws connecting the same together to form clamping jaws, said bars having flat upper faces lying in a common plane and having flat inner side faces parallel with each other, said screws passing through the bars and being of such length that the outer side faces of the bars are left unobstructed when a thin piece of work is gripped in the jaws.

1,415,574. MANDOLIN ATTACHMENT FOR PIANOS. PHILIP C. JOHNSON, Chicago, Ill. Filed Sept. 9, 1920. Serial No. 409,113. 3 Claims. (Cl. 84—224.)



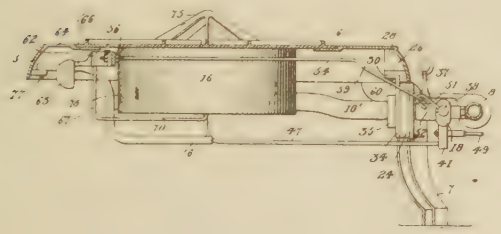
2. An attachment for use with a musical instrument wherein a sounding string is arranged for actuation by a hammer, said attachment comprising a stop movable into position between said string and hammer, a striker located between said stop and hammer and arranged to be struck by the hammer so as to react upon the string, and a shock absorbing member arranged between said stop and striker and located in the path of movement of the hammer to arrest the advance of the hammer toward the string.

1,415,575. ASH SIFTER. MEYER KAMENSTEIN, New York, N. Y. Filed July 28, 1921. Serial No. 488,120. 7 Claims. (Cl. 83—60.)



1. An ash sifter comprising a barrel top provided with an opening, a reinforcing wire encircled by the portion of the barrel top outlining the opening, a sifter member depending below said opening and provided with hooks at opposite sides thereof and hung on said reinforcing wire thereby to suspend the sifter member for oscillatory movement and a cover hinged to said reinforcing member for closing said opening with the sifter in place.

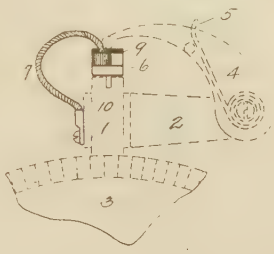
1,415,576. GAS STOVE. JAMES E. KENNEDY, Washington, D. C. Filed Dec. 23, 1920. Serial No. 432,810. 16 Claims. (Cl. 126—52.)



1. In a gas stove, the combination with a main burner and a pilot burner, of a valve for governing the supply of gas to both of said burners, said valve including a closing member constructed to normally close communication to the main burner and to allow slight seepage of gas to the pilot burner and arranged to increase the flow of gas to the pilot burner before turning on the gas to the main burner, means to automatically maintain the valve in its normal closed position, and means operable by the positioning of a device to be heated above the burners for automatically opening said valve.

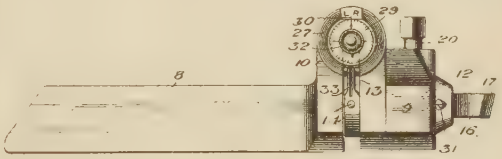
1,415,577. ADAPTER FOR MOTOR-BRUSH SHUNTS. DAVID R. KNAPP, Pottsville, Pa., assignor to Co-Operative Utilities Co., Inc., Philadelphia, Pa., a Corporation of Delaware. Filed Oct. 12, 1920. Serial No. 416,538. 6 Claims. (Cl. 171—323.)

2. The combination with a brush, a holder for supporting said brush for sliding movement relative to said holder, a member formed of conducting material arranged to move said brush into or through said holder, means for removably attaching said member to one end of said brush, insulating material secured to one end of said member, a spring pressed trigger acting



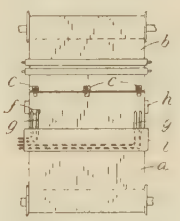
through said insulating material to press said member and brush transversely of said holder, and a conductor electrically connecting said member and said holder.

1,415,578. TOOL HOLDER. FREDERICK KNOOP, Washington, D. C. Filed Feb. 16, 1920. Serial No. 358,895. 13 Claims. (Cl. 29—96.)



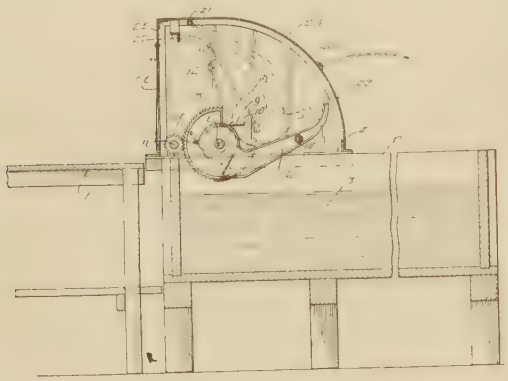
1. In a threading tool, the combination of a tool stock; a cutting tool mounted upon said stock and capable of angular adjustment thereon to adapt it to cut threads of different angular pitches; adjusting means for said tool including a dial and a reduction gear; and a clamp acting between the stock and tool and serving to clamp the tool to the stock in its adjusted positions.

1,415,579. TUNE SHEET FOR AUTOMATIC MUSICAL INSTRUMENTS. LOTHAR KÖHLER, Bremen, Germany, assignor to Dr. Jur. Wilhelm Lürman, Bremen, Germany. Filed Sept. 14, 1921. Serial No. 500,666. 3 Claims. (Cl. 84—162.)



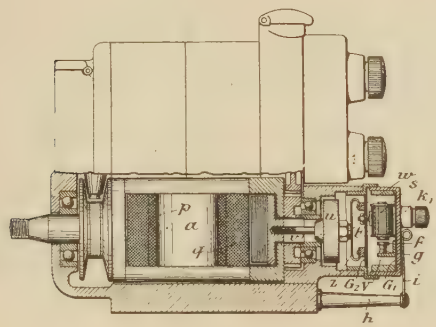
1. The employment, in automatic musical instruments, for the incidental music accompanying the projection of kinematographic pictures, of two independent tune-sheets made up of detachably connected sections, each section containing a different tune, electric contact elements connected to the sheets, and contact springs arranged so as to cooperate with said elements for controlling the starting and stopping of the sheets, the contact elements being arranged on the sheets so that one sheet is started when a tune of the other sheet has been played to a finish and so that such other sheet is stopped as soon as the tune of the next section reaches the proper starting position, the tunes being arranged in the sheets in alternate succession, substantially as and for the purpose set forth.

1,415,580. CARCASS-DEHAIRING MACHINE. LOUIS A. KRAMER, Chicago, Ill. Filed Nov. 1, 1920. Serial No. 421,123. 32 Claims. (Cl. 17—11.)



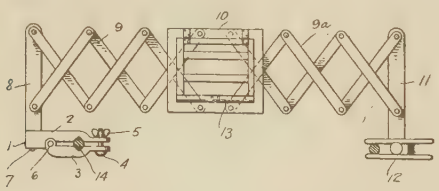
1. In a carcass dehairing machine, a scalding tank, a revolving beater member overhanging the same, and means for lifting a carcass out of the scalding tank and carrying it through the beating path of the beater member over the beater member.

1,415,581. IGNITION APPARATUS FOR INTERNAL-COMBUSTION ENGINES. FRANZ KRATZ, HEINRICH STARKER, and OTTO SELLING, Stuttgart, Germany, assignors to the Firm of Robert Bosch Aktiengesellschaft, Stuttgart, Germany. Filed Mar. 31, 1920. Serial No. 370,361. 2 Claims. (Cl. 123—148.)



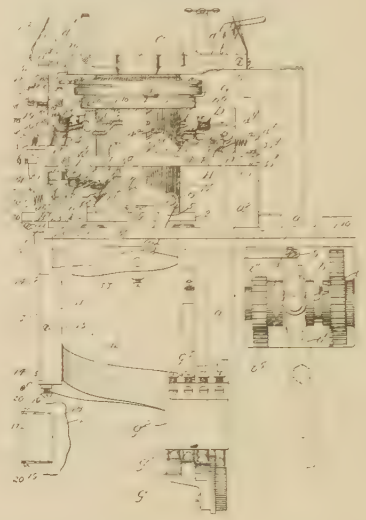
1. Magneto electric ignition apparatus for internal combustion engines comprising a magneto armature having primary and secondary windings, an interrupter, a housing for said interrupter, a buzzer for amplifying the ignition current, and a housing for said buzzer adapted to be attached to said interrupter housing.

1,415,582. EXTENSIBLE BOOKRACK. JOSEPH A. KRIVACS, Mount Vernon, N. Y. Filed Sept. 8, 1921. Serial No. 499,314. 2 Claims. (Cl. 45—82.)



2. A book rack comprising in combination, a pair of extensible lever arms, a book rest to which the lever arms are severally pivotally secured on opposite sides, two vertical arms to which the opposite ends of the lever arms are respectively secured, a pivotal bearing adapted to carry one vertical arm and a support for the other vertical arm.

1,415,583. SPLIT-WORK KNITTING MACHINE. ALDEI LANDRY, Central Falls, R. I., assignor to Hemphill Company, Central Falls, R. I., a Corporation of Massachusetts. Filed Feb. 5, 1919. Serial No. 275,228. 27 Claims. (Cl. 66—24.)



1. A split-work knitting machine having, in combination, a needle-cylinder, needles, main and auxiliary yarn-feeds, main knitting cams for round and round and also reciprocating knitting, narrowing and widening pickers cooperating with said main knitting cams, means for supporting said cams and pickers at one level in the machine, upper and lower instep cams, and an auxiliary set of radially-movable knitting cams for reciprocating knitting only, permanently located opposite the main knitting cams, and having the said auxiliary set of knitting cams located at an entirely different level from that of the main knitting cams.

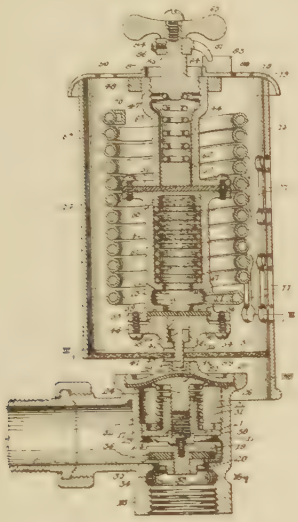
14. A split-work knitting machine comprising, in combination, a needle-cylinder, a series of needles, main knitting cams, widening pickers, a radially-movable block carrying said pickers, and pattern-connections for automatically moving said picker-block radially to place said pickers in and out of operative relations with the needles.

26. In a knitting machine having main and auxiliary feeds, the combination with a sinker-cam ring having sinker-actuating cams corresponding with said feeds, at least one of the latter movable into working and non-working positions respectively, of sinkers comprising a set having butts adapted to pass said movable sinker-cam without being engaged thereby, and a set having butts adapted to be engaged and actuated by the said cam when in working position, and pattern-connections for controlling the position of the said movable cam.

1,415,584. THERMOSTATIC HEAT-CONTROLLING REGULATOR. JAMES J. LAWLER, Pelham, N. Y. Filed Mar. 12, 1919. Serial No. 282,075. 4 Claims. (Cl. 236—42.)

1. A regulator for a valve comprising a tubular column, a downwardly projecting actuator slidably carried by the column and operatively associated with the valve, a thermostatic coil surrounding the column and communicating with the interior of the column for automatically operating the actuator during a change of temperature,

means arranged exteriorly of said column and resiliently associated therewith for adjusting the internal capacity of said column whereby the actuator is initially positioned as desired, and means within the tubular column cooperating with the capacity adjusting means to hold the same under tension.

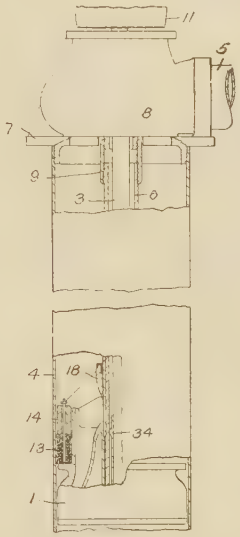


1,415,585. WELL MECHANISM. MAHLON E. LAYNE and SAMUEL N. HALL, Los Angeles, Calif.; said Hall assignor to said Layne. Filed Sept. 8, 1920. Serial No. 408,941. 10 Claims. (Cl. 253—199.)

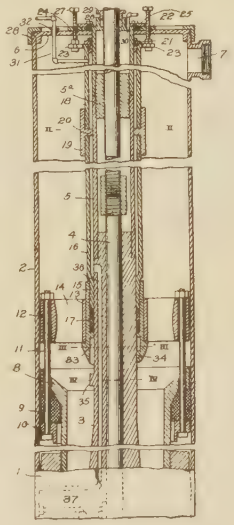
1. In combination in well mechanism, a pump, a discharge casing extending upwardly from the pump, a power transmission shaft extending upward from the pump, a shaft casing surrounding the shaft and provided with a series of spaced bearings for the shaft, and spring means constantly applying tension to said shaft casing.

1,415,586. WELL MECHANISM. MAHLON E. LAYNE and SAMUEL N. HALL, Los Angeles, Calif.; said Hall assignor to said Layne. Filed Sept. 8, 1920. Serial No. 408,943. 10 Claims. (Cl. 166—10.)

1. In combination in a well mechanism, a combined well and discharge casing, a pump in the casing, a drive shaft extending upward therefrom, a shaft casing provided with bearings for the shaft, a packing between the upper portion of the pump and said well and discharge casing, and means operable from the surface of the ground for tightening said packing after the pump has been set.



1,415,587. WELL MECHANISM. MAHLON E. LAYNE and SAMUEL N. HALL, Los Angeles, Calif.; said Hall assignor to said Layne. Filed Nov. 16, 1920. Serial No. 424,568. 17 Claims. (Cl. 253—199.)

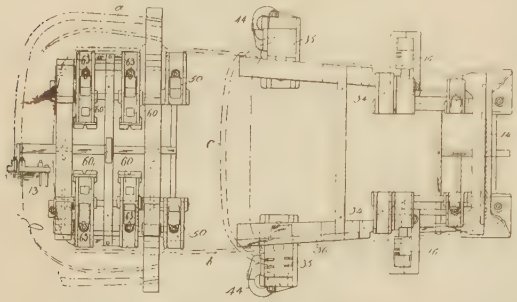


1. In combination in a well mechanism, a well casing, a pump in the casing, a drive shaft extending upward therefrom, packing means between the well casing and pump casing, a shaft casing extending upwardly from the pump, means on the pump casing engaging the packing whereby the weight of the pump is applied to the packing, and means extending to the surface of the ground and independent of the shaft casing for supporting the packing.

1,415,588. JIG FOR USE IN ELECTRICALLY WELDING THE PARTS OF AUTOMOBILE BODIES AND OTHER STRUCTURES. JOSEPH LEDWINKA, Philadelphia, Pa., assignor to Edward G. Budd Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 1, 1919. Serial No. 307,920. 3 Claims. (Cl. 219—4.)

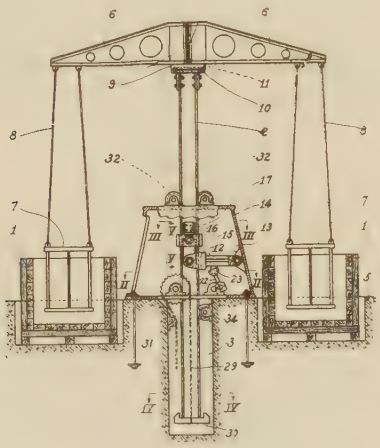
1. In a machine for welding together sheet metal stampings to form an automobile body, an assembly frame to

receive the stampings in position to be welded together, a rod carried by said frame, a rock member carried by said rod to rock thereon and shiftable therealong, a conductor bar carried by said rock member to be brought into con-



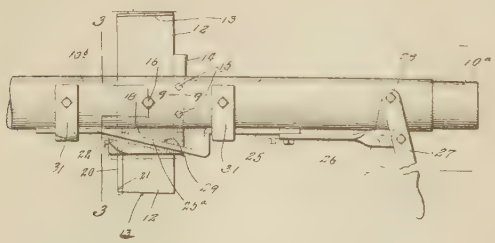
tact with the portions of the stampings to be welded, and a movable electrode cooperating with said contact bar to effect the welding action at any desired point along the length of said bar, said bar and electrode forming parts of an electric welding circuit.

1,415,589. PICKLING MACHINE. WARREN C. LEINBACH, Wilkinsburg, Pa. Filed Mar. 26, 1921. Serial No. 455,770. 11 Claims. (Cl. 266—7.)



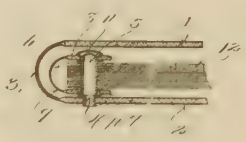
1. In a pickling machine, the combination with a plurality of vats, of a vertically movable ram provided with lateral arms having cages suspended therefrom, a pivoted arm engaging to said ram, a motor, and connections between said motor and arm for oscillating the arm to reciprocate the ram.

1,415,590. EXPANSIBLE BORING TOOL. JOHN LITTLE, St. Louis, Mo., assignor to John J. Larkin, St. Louis, Mo. Filed Dec. 31, 1920. Serial No. 434,198. 10 Claims. (Cl. 77—58.)



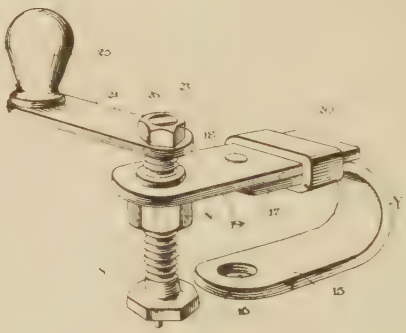
1. In a boring tool, a lathe bar, a radially disposed boring tool fixed to said bar, an expansible cutting tool mounted on said fixed boring tool, and manually controlled means for operating said expansible tool.

1,415,591. DETACHABLE COVER FOR PADS, BOOKS, ETC. OSCAR LOEWENBACH, Milwaukee, Wis. Filed Apr. 5, 1920. Serial No. 371,389. 1 Claim. (Cl. 129—23.)



The combination with a pair of cover members hingedly connected together, of a pair of posts carried by one of the cover members and extending toward the other member, a binder having corresponding portions to engage the opposite sides of a filler, eyelets in one of said portions and slidable on the posts and attaching sockets on the other of said portions for cooperation with the free ends of said posts.

1,415,592. VALVE-GRINDING TOOL. ALBERT LOVELESS, Aberdeen, Wash. Filed May 16, 1921. Serial No. 469,771. 5 Claims. (Cl. 51—29.)

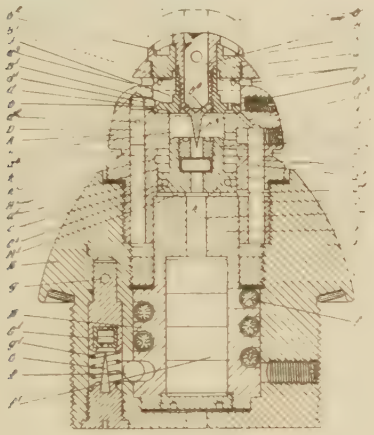


1. A valve grinding tool comprising a yoke, an extension formed on the yoke, said yoke and extension being formed of resilient material, a screw threaded spindle loosely extending through the extension, a head formed on one end of the spindle, pins carried by said head, a reduced extension formed on the other end of the spindle, a crank mounted on said reduced extension, a securing nut on said reduced extension engaging said crank, and an adjusting nut on said spindle and engageable with the first extension to effect when rotated a vertical adjustment of said spindle.

1,415,593. SHELL FUSE. OWEN DAVID LUCAS, Bayswater, London, England, assignor to V. M. L. Experimental Limited, Westminster, London, England. Filed Feb. 16, 1922. Serial No. 536,858. 8 Claims. (Cl. 102—39.)

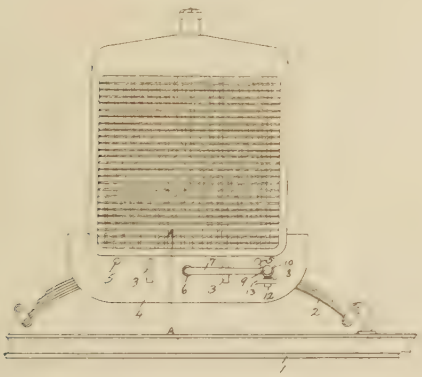
7. In a fuse of the kind set forth, a pair of cylinders in the fuse body, a striker and a detonator pellet both provided with pistons adapted to be displaced under air pressure due to flight of the shell from the rear to the forward part of the said pair of cylinders, a set back pin or pins holding the striker and pellet in rearward inoperative position, an air passage through the striker into the space behind the striker piston and an air passage from the said space to the cylinder space behind the pellet piston, the fuse being adapted on discharge of the shell to cause the set back pin or pins to release both

the striker and pellet, whereupon the air pressure due to the flight of the shell acts on the striker piston to



move the striker forward and then acts on the pellet piston to cause the pellet to follow up the striker, for the purpose specified.

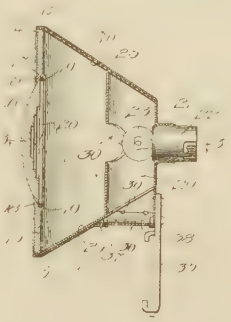
1,415,594. AUTO PLATE AND CRANK HOLDER. GEORGE MCGARRY, Youngstown, Ohio. Filed May 11, 1921. Serial No. 468,519. 2 Claims. (Cl. 180—1.)



1. In a device of the class described, a plate member secured snugly underneath a radiator, outwardly pressed rectangular parts for housing connecting parts, an inturned flange on said plate, a strap formed by pressing outwardly a portion of the said plate, an arm provided with a downwardly extending part hinged within said strap and plate, a clip secured to the upper and outer end of said arm, substantially as described for the purpose set forth.

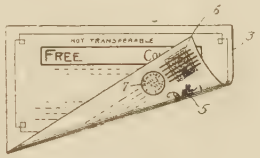
1,415,595. SIGNAL DEVICE. JOHN THOS. MCGRATH, Bloomington, Ill. Filed Jan. 19, 1920. Serial No. 352,405. 8 Claims. (Cl. 240—7.)

1. As an article of manufacture, a directly and indirectly illuminated signal device comprising a casing having a light emitting opening, lenses of different tints occupying different zones of said opening, a point source of light within the casing to directly illuminate said lenses, and mutually opposed reflector means within the



casing arranged to reflect and diffuse light entering the casing when the point source of light fails to illuminate said lenses.

1,415,596. ADVERTISING DEVICE. VICTOR P. MCKINNIE, New York, N. Y., assignor to Ward Baking Company, a Corporation of New York. Filed Nov. 18, 1920. Serial No. 424,808. 4 Claims. (Cl. 283—36.)

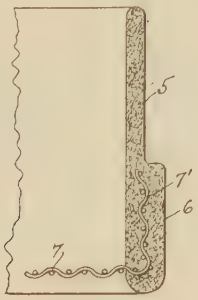


1. An advertising device comprising a card folded so that its parts lie in contact, means for temporarily holding them in such relation, one of the parts being designed to bear an address and being printed in the form of a coupon.

1,415,597. REST-PRODUCING STRUCTURE. MARK F. MADDEN, Chicago, Ill. Filed Oct. 19, 1921. Serial No. 508,739. 3 Claims. (Cl. 128—155.)

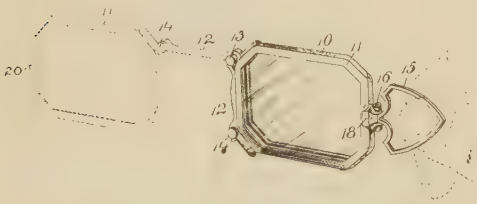
1. A structure for the purpose set forth comprising a body of padding material having an internal contour to fit portions of the body, an external contour comprising a substantially regular surface adapted to contact uniformly with a flat supporting surface, and means to secure the structure upon the body, whereby undue pressure upon any part is eliminated and bed sores prevented.

1,415,598. RIDDLE. HENRY O. MAGNUSON, Chicago, Ill. Filed Sept. 13, 1920. Serial No. 409,804. 2 Claims. (Cl. 83—60.)



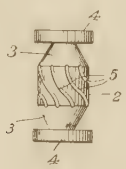
1. A molder's riddle comprising an annular frame of molded fiber composition, and a flat reticulated bottom disposed above the plane of the lower edge of said frame and having an upturned marginal portion embedded in the lower portion of said frame.

1,415,599. LORGNETTE. IRVING MANDEVILLE, Newark, N. J. Filed Jan. 27, 1922. Serial No. 532,082. 4 Claims. (Cl. 88—44.)



1. A lorgnette comprising a pair of lens frames connected so that they can be extended and also assembled in parallel relation, and a handle hinged to one frame, the handle including a catch disposed so that it releases the other frame when the assembled frames are swung on the handle.

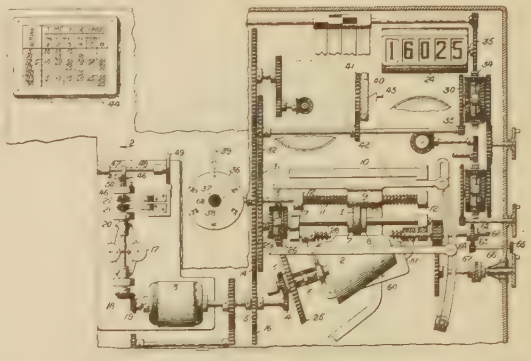
1,415,600. ADJUSTABLE PLUG FOR CLEANING CONDENSER TUBES. MARTIN MANNION, Perth Amboy, N. J., and ROBERT C. ARTHUR, Tottenville, N. Y., assignors of one-third to John Mannion, Perth Amboy, N. J. Filed July 1, 1921. Serial No. 481,942. 8 Claims. (Cl. 15—104.06.)



1. A tube-cleaner of plug shape, and consisting of a projectile having an intermediate grooved portion and annular end flange-forming portions.

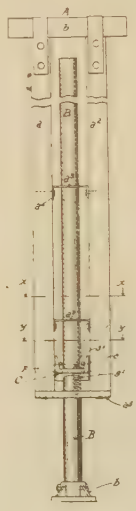
1,415,601. CORRECTION MECHANISM FOR INTEGRATING DEVICES. ELEMER MEITNER, Brooklyn, N. Y., assignor to The Sperry Gyroscope Company, Brooklyn, N. Y., a Corporation of New York. Filed Mar. 15, 1918. Serial No. 222,613. 11 Claims. (Cl. 235—61.5.)

1. In combination, a driving member, a driven member actuated by said driving member at a speed depending upon the relative position of said members, indicating means actuated by said driven member, means comprising a part actuated in accordance with the relative posi-



tion of said members for determining what the reading of said first mentioned indicating means should be and means for adjusting the speed of at least one of said members.

1,415,602. ADJUSTABLE SHORE. GEORGE W. MEYER and CHARLES A. ROOS, Cincinnati, Ohio. Filed Sept. 27, 1920. Serial No. 413,239. 4 Claims. (Cl. 248—3.)

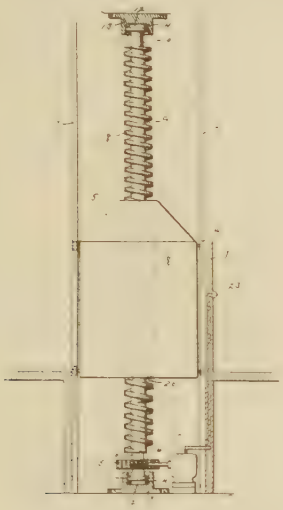


1. An extensible shoring device comprising a relatively fixed member, an adjustable member telescopically engaged upon said fixed member, said adjustable member comprising parallel bars slightly spaced apart, a series of perforated spacing and bracing plates rigidly secured to and between the inner faces of said parallel bars, one end of the fixed member being free to pass through any or all of the perforations of said plates, and means for securing the relative position of the fixed and adjustable members.

1,415,603. ELEVATOR DEVICE. MARTIN MICKELSON, Muskegon Heights, Mich. Filed July 28, 1920. Serial No. 399,518. 1 Claim. (Cl. 187—24.)

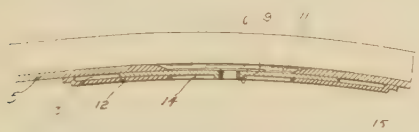
In a device of the character described, the combination with two vertically held guide rails, of an upper and lower bearing located between the said rails, a vertically held screw column the ends of which are reduced and provided with an enlarged bearing head arranged for cooperation with said bearings, a worm held to the lower end of said column, a car having a suitable bottom, said car provided with a vertically extending well passing through the same and enclosing said column, a spiral on the screw column having an upstanding rim, brackets se-

cured to the said car bottom, a grooved roller carried by the said brackets and arranged to ride on said upstanding



rim, and a guide carried by the said car for engagement with said guide rails, all as and for the purpose set forth.

1,415,604. PNEUMATIC TIRE. WILLIAM W. MOORE, Spokane, Wash. Filed Apr. 21, 1921. Serial No. 463,275. 3 Claims. (Cl. 301—10.)

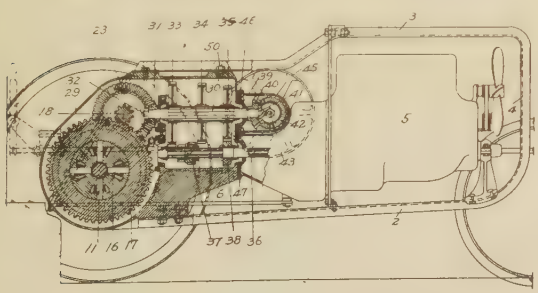


1. The combination with a circumferentially slotted wheel, rim and a slotted, fixed plate thereon forming a pocket on its inner periphery, of a movable guide plate in said pocket and said slotted rim and movable plate adapted to receive a valve stem as described.

1,415,605. CLEANSING COMPOUND. WARREN C. NEWBURY, East Boston, Mass., assignor to Samuel Cabot, Inc., a Corporation of Massachusetts. Filed Mar. 23, 1918. Serial No. 224,371. 2 Claims. (Cl. 87—5.)

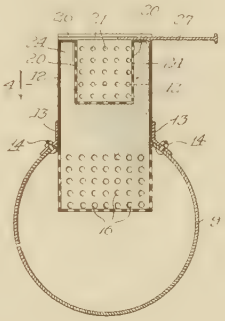
1. A liquid for removing tar or road oil from finished automobile bodies or the like, comprising creosote in predominating amount, a light petroleum oil and linseed oil.

1,415,606. TRANSMISSION CASING FOR TRACTION MACHINES. HAROLD NILSON and LEONARD NILSON, Wayzata, Minn. Filed Feb. 3, 1919. Serial No. 274,669. 10 Claims. (Cl. 74—56.)



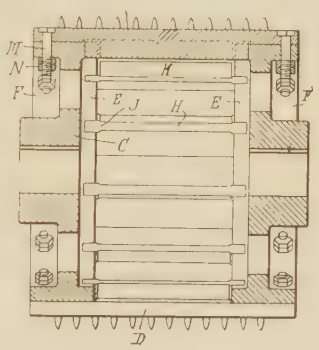
10. In a traction machine, a frame a transmission casing mounted thereon, a rear axle journaled in the side walls of said casing and having traction wheels, differential gearing mechanism on said axle within said casing, said axle and differential gearing being removable bodily from said casing without separation.

1,415,607. FUEL SAVER. ADOLPH OSCHMANN, Chicago, Ill. Filed June 7, 1920. Serial No. 387,046. 1 Claim. (Cl. 110—58.)



The combination with a smoke pipe of an air feeding device comprising a hollow open ended box-shaped member partially inserted into the smoke pipe through the wall thereof the inserted portion being perforated a second similarly shaped hollow member having its walls perforated inserted within the open end of the first mentioned member and having its walls spaced from the walls of the first mentioned member and means for varying the opening in the first mentioned member.

1,415,608. CRUSHER ROLL. BOYD C. OSLER, Hazleton, Pa. Filed June 14, 1921. Serial No. 477,399. 4 Claims. (Cl. 83—12.)



1. A crusher roll comprising separate heads and peripheral segments carrying crushing projections on their outer faces, said segments engaging each other at their side edges and being bolted to the separate heads, and additional means on said supporting heads adapted for interlocking engagement with the segments for holding said segments against peripheral movement, and relieving the bolts of strain in the peripheral direction.

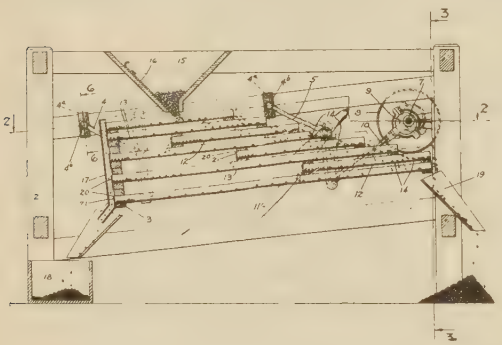
1,415,609. HAND SHEARS. WILLIAM PACEY, Dunedin, New Zealand. Filed Nov. 19, 1919, Serial No. 339,059. Renewed Apr. 1, 1922. Serial No. 548,795. 1 Claim. (Cl. 30—1.)

Hand shears having the shank portions formed concavo-convex with the edges bent to present lips, and blades

having extensions to fit the inner surfaces of such shanks and be retained by the lips, said blade extensions having

spring catches to ride over the surface of the shanks opposite that engaged by such extensions and cooperate with openings formed in said extensions.

1,415,610. WILD-PEA SEPARATOR. CHARLES L. PALMER and JOHN R. HOLLISTER, Sleepy Eye, Minn., assignors to Rollemout Manufacturing Company, Sleepy Eye, Minn., a Corporation of Minnesota. Filed Oct. 22, 1921. Serial No. 509,522. 14 Claims. (Cl. 130—15.)

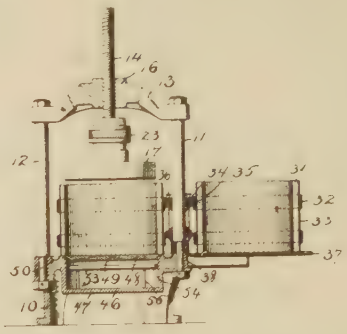


8. In a separator, an oscillating shoe having a plurality of inclined plates therein, one above the other, means for delivering a mixture of elongated and spherical seeds upon the upper plate of the shoe, the movement of said shoe tending to feed the material toward the upper end of the plate on which it lies, while the spherical seeds, separated therefrom, roll to the lower end of said plate, and each plate having near its upper end means for delivering the mixture of elongated and spherical seeds in a thin sheet upon the surface of the plate next beneath to continue the separation.

1,415,611. PRESS. LEWIS PEROTTI, Newark, N. J. Filed Jan. 11, 1921. Serial No. 436,439. 8 Claims. (Cl. 100—44.)

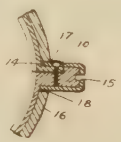
1. A press comprising a support, a pressure means on the support, the base of the support being recessed and having an annular groove around the mouth of the recess, the base having passages from the groove to the upper part of the recess, a cover on the recess, and a screen mounted in the recess below the passages.

8. A press comprising a support including a base and a standard, a bracket swinging on the standard, baskets attachable to the brackets and disposed so as to swing with their bottoms slightly above the level of the base, a pressure means on the standard and above the base, a shelf of curved form at the level of the base and adapted to support the contents of the basket swung toward the base, said shelf being short enough to permit enough space



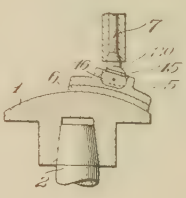
whereby a basket swung beyond the base can have its contents dropped, the parts being disposed so that the other basket is then in position under the pressure means, and a latch for stopping the bracket whenever the baskets are in the above described position.

1,415,612. OPHTHALMIC MOUNTING. ELMER L. SCHUMACHER, Southbridge, and WILLIAM H. BOUTELLE, Sturbridge, Mass., assignors to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed Nov. 25, 1921. Serial No. 517,722. 8 Claims. (Cl. 88—47.)



1. A frame of the character described comprising a metallic bridge and eye wire, said eye wire being split at the outer side, an end piece member carried by one end of the split eye wire and having a recess formed therein, a connecting plate carried by the other end of the eye wire and of size to fit within the recess, and a unitary composition frame member having a portion enclosing the end piece, a second portion encircling the metallic rim, and a terminal flap overlying the connecting plate on the opposite end of the metallic rim and when closed making flush joint with the end piece covering to substantially conceal the union of the split ends of the frame.

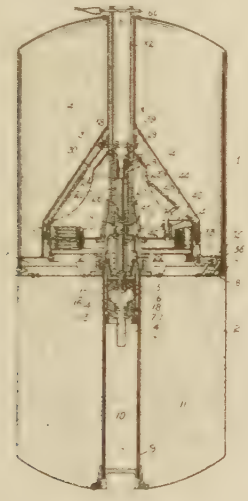
1,415,613. LENS-GRINDING MACHINE. LEON G. SIMPSON, Rochester, N. Y., assignor to Bausch & Lomb Optical Company, Rochester, N. Y., a Corporation of New York. Filed Nov. 30, 1918. Serial No. 264,849. 5 Claims. (Cl. 51—131.)



1. The combination of a lens carrier and a grinding tool cooperating therewith, one of said parts having a recess

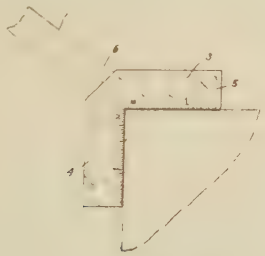
therein on the side thereof opposite the other of said parts, a guide bar and a universal joint between said recessed part and bar comprising a bearing member within the recess and rounded on the bottom for pivotal movement in said recess and a pin pivotally connecting the bearing member and guide bar within and adjacent the bottom of said recess.

1,415,614. DEPTH-CONTROLLED MINE. ELMER A. SPERRY, Jr., Brooklyn, N. Y. Filed Apr. 16, 1917. Serial No. 162,245. 32 Claims. (Cl. 102—3.)



1. In combination, a mine, means for exploding said mine at a predetermined depth below the surface of the water, adjusting mechanism for predetermining the depth at which said mine will be exploded and means for preventing the release of said exploding means while said adjustment is being effected.

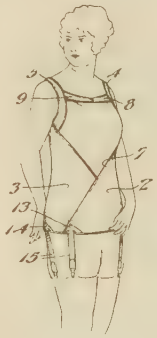
1,415,615. MACHINIST'S RULE AND GAUGE. ADAM J. STOCK, Wilkinsburg, Pa. Filed July 23, 1919. Serial No. 312,694. 2 Claims. (Cl. 33—185.)



1. A gauge of the character described made of a single piece of flat material and comprising a pair of straight legs of uniform width disposed angularly in one plane; the apex formed by the outer edges of said legs being cut normally to the bissectrix of the angle formed by said legs; said gauge being adapted to be placed with its reentrant angle in contact with the adjacent sides of an angular body.

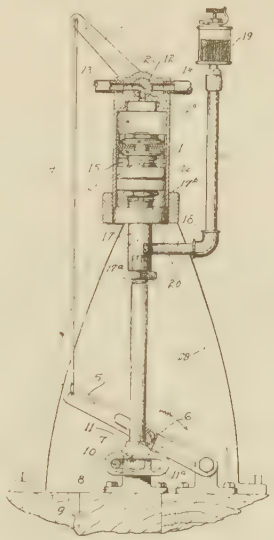
1,415,616. UNDERWAIST. MABEL M. STURGIS, Burley, Idaho. Filed Aug. 25, 1920. Serial No. 405,895. 1 Claim. (Cl. 2—98.)

An underwaist including with a shaped back portion, substantially triangular front portions secured at the sides of the back portion to have their tapered ends overlapped over the abdomen of the wearer and secured, shoulder straps extending from the top edge of the back portion looped over and connected at their free ends on the ta-



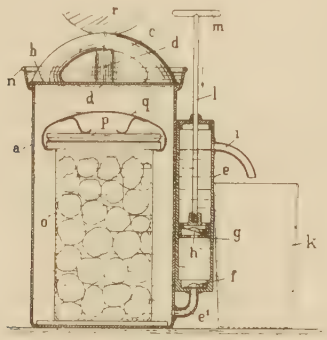
pered edges of the front portions to present arm loops, and straps connected with the forward loops of the shoulder straps to be fastened across the chest of the wearer to hold the shoulder straps in place.

1,415,617. PUMP. ISAAC W. WEPPLO, Chicago, Ill. Filed Nov. 15, 1920. Serial No. 424,256. 2 Claims. (Cl. 103—63.)



1. In a measured delivery pump, a reciprocating piston, an oscillating valve, means for operating said piston and valve in the proper time relation, said piston having a central body and a pair of heads, one head attachable from each side of said body, each head comprising a pair of flexible rings and having resilient members urging said rings against the sides of the cylinder, and means for maintaining the space between said heads constantly filled with lubricants.

1,415,618. METHOD AND DEVICE FOR HANDLING PRESERVING JARS. GUSTAV WINKLER, Dessau, Germany. Filed Sept. 8, 1920. Serial No. 409,014. 3 Claims. (Cl. 226—82.)



1. The method which consists in surrounding a superficially closed preserving receptacle within a closed container with a suitable liquid and forcibly pumping some of said liquid from said container.

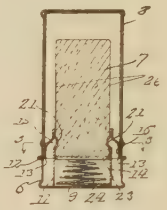
1,415,619. DRILLING BIT. EDWIN J. AKINS, Moundsville, W. Va. Filed Mar. 18, 1921. Serial No. 453,361. 5 Claims. (Cl. 255—63.)

1. A tool for deep-well drilling, comprising a bit shaped to form a central spine of substantially cylindrical form and two diametrically opposite wings, the latter terminating in downwardly-facing shoulders, said spine being prolonged below said shoulders and constituting a drilling point of relatively small diameter.

1,415,620. METHOD OF MAKING PISTON RINGS. ALBERT W. ALBRECHT, St. Louis, Mo. Filed Oct. 20, 1919. Serial No. 332,105. 3 Claims. (Cl. 29—156.6.)

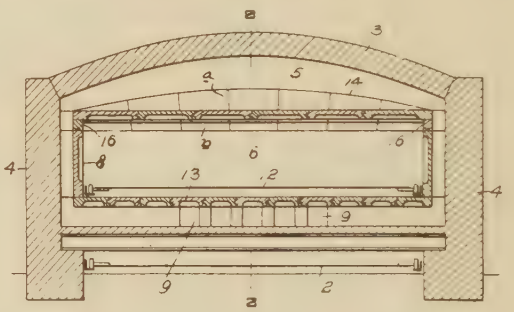
1. The method of making a one-piece piston ring, which consists in shaping a noncircular bar to form a rectilinear central portion of equal width throughout its length, and tapering end portions narrower than the central portion throughout their length and each end portion being bordered on one side edge throughout its length by a rectilinear continuation of one of the side edges of the central portion and its opposite side edge being inclined from an intersection with said rectilinear continuation to an intersection with the opposite side edge of the central portion, and rolling said noncircular bar into annular form to place the inclined side edges of said end portions in contact with the side edges of the central portion respectively, so that the completed ring will be of the same width throughout its circumference.

1,415,621. CONTAINER AND HOLDER FOR SHAVING STICKS. JOHN B. ALBRIGHT, Rockford, Ill. Filed July 18, 1919. Serial No. 311,831. 6 Claims. (Cl. 206—56.)



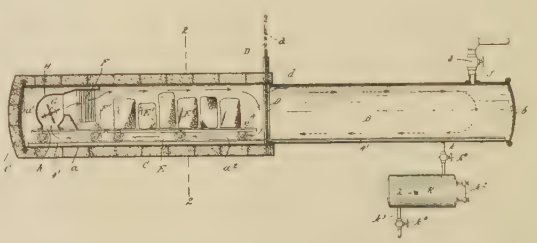
1. A holder for shaving sticks, comprising a holder element composed of a base member and a socket member, the face member having an outer tubular wall, the socket member having an inner tubular wall spaced inwardly from said outer wall, reaching above the latter and turned downwardly and fastened to the upper portion of said outer wall, the tubular wall of the socket member having an inwardly extending boss of greater length than width and arranged in a plane transverse to the axis of the socket, a shaving stick having a bayonet shaped recess for the reception of said boss, and a cover casing adapted to inclose the shaving stick and detachably connect to the holder element.

1,415,622. ANNEALING FURNACE OR LEER. WALTER O. AMSLER, Pittsburgh, Pa. Filed May 21, 1920. Serial No. 383,258. 6 Claims. (Cl. 263—46.)



1. A flat roof structure including a series of flat tiles and a series of arched members assembled in interlocked relationship.

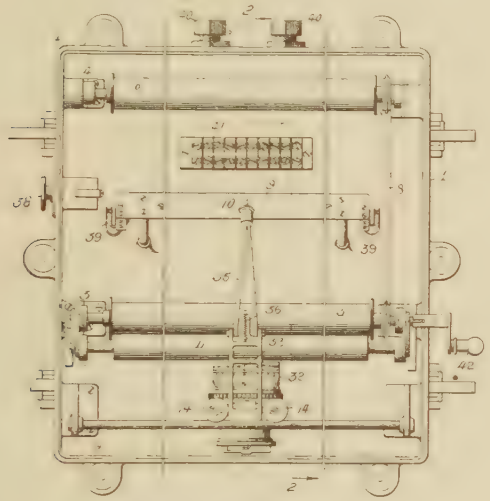
1,415,623. METHOD OF DRYING GOODS. WILLIAM ATKINSON, Boxford, Mass., assignor to The Vacuum Company, Somerville, Mass., a Corporation of Massachusetts. Filed Oct. 12, 1918. Serial No. 257,855. 5 Claims. (Cl. 34—24.)



5. That method of drying goods under a partial vacuum in a closed chamber, which consists in alternately

heating and cooling the air while under a pressure less than atmospheric pressure whereby the moisture will be alternately withdrawn from the goods and taken up by heated air, and then condensed and the dried air reheated to take up more moisture from the goods, and the same air under a partial vacuum used constantly until the drying is complete.

1,415,624. APPARATUS FOR INDICATING AND RECORDING THE DIRECTION AND DISTANCE OF TRAVEL OF VEHICLES. ARTHUR ERNEST BREWERTON, Wandsworth Common, London, England, assignor to The Sperry Gyroscope Company, Brooklyn, N. Y., a Corporation of New York. Filed June 4, 1919. Serial No. 301,767. 9 Claims. (Cl. 234—26.5.)

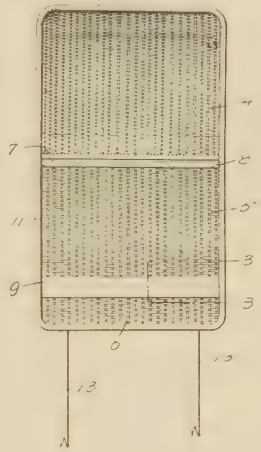


1. Apparatus for indicating and recording the direction and distance of travel of a vehicle comprising a chart movable in one axis or direction in its own plane and a carriage carrying a marking device for making a record on the chart and movable along an axis at right angles to said first mentioned axis, the said carriage carrying propelling mechanism which drives the carriage and the chart at speeds the ratio of which is equal to the ratio of the two components of the direction being traversed at any instant by the vehicle.

1,415,625. MOVABLE-BLOCK PUZZLE. MARTIN BULISTER, Pittsburgh, Pa. Filed June 3, 1921. Serial No. 474,745. 4 Claims. (Cl. 46—41.)

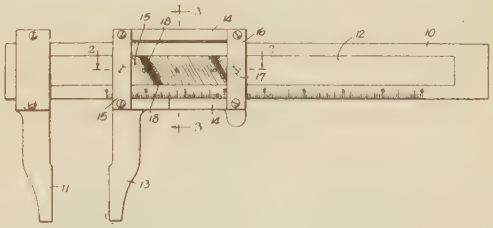
1. A movable block puzzle of the character described comprising a square field and nineteen movable blocks; fifteen of said blocks being square and of equal size, three blocks rectangular having a width equal to the sides of said square blocks and a length equal to twice the side; and one rectangular block of equal width as the aforementioned blocks and a length equal to three times the width.

1,415,626. GARMENT PROTECTOR FOR AUTO SEATS. EDWARD L. FUCHS and ANTHONY L. FUCHS, St. Louis, Mo. Filed June 11, 1921. Serial No. 476,842. 3 Claims. (Cl. 155—182.)



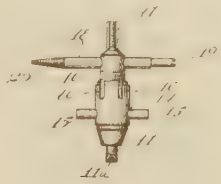
1. A reversible and flexible garment protector for auto seats composed of a section for the back, a section for the seat, and a section for the front edge of the seat, the seat section and back section being spaced apart almost throughout their widths, a continuous piece of binding tape stitched at the outer margins of said section for holding the same in assembled form, the lower edge of the back section and the rear edge of the seat section being unattached except at the side margins, so that the seat back section may conform with the shape of the seat back.

1,415,627. PRECISION INSTRUMENT. GIOVANNI EUSEBIO GIAMBIASI, Philadelphia, Pa., assignor to Howard S. Levy and Lionel F. Levy, Philadelphia, Pa. Filed Nov. 7, 1919. Serial No. 336,458. 1 Claim. (Cl. 88—14.)



A measuring instrument, comprising a pair of translucent members having adjacent flat faces and being movable one over the other along parallel axes, the adjacent flat faces of each of said members being provided with a series of parallel lines, the lines on both members being inclined in the same direction at an angle to their axes but the lines on one member being inclined at a different angle from the lines on the other member to form alternate dark and light parallel bands extending at an oposite angle to said lines, whereby when one of said members is moved axially of the other the intersecting points of the lines on the two members will traverse said members across the adjacent faces thereof so that said parallel dark bands will move axially of said members at a rate of speed equal to the axial distance one member is moved relatively to the other member to cause the intersection to travel the entire length of said lines.

1,415,628. TIRE-VALVE TOOL. HARRY C. GIELOW, Chicago, Ill., assignor to Elgin Auto Tool Company, Elgin, Ill., a Corporation of Illinois. Filed Apr. 19, 1921. Serial No. 462,506. 10 Claims. (Cl. 7—1.)

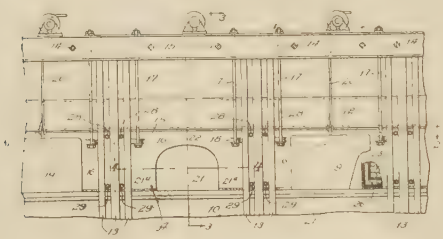


8. In a device of the class described, the combination of a threaded rod having clamping jaws extending from one end thereof of a diameter to enter the bore of a valve stem, a sleeve engaging said threads to forcibly move said jaws toward each other, and a cross rod extending from said threaded rod and secured thereto to form a handle for said threaded rod.

1,415,629. METHOD FOR FILING PRINTING PLATES. HARLO R. GRANT, Chicago, Ill. Filed Nov. 13, 1919. Serial No. 337,853. 1 Claim. (Cl. 99—8.)

The method of preserving printing cuts, which comprises arranging said cuts in vertical superimposed relation, and confining them in a narrow container so as to leave a slight air space between the backs of said cuts and the adjacent walls of the container.

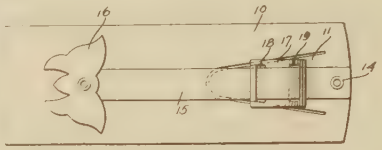
1,415,630. FRONT WALL FOR OPEN-HEARTH FURNACES. JOHN O. GRIGGS, Youngstown, Ohio. Filed Jan. 31, 1921. Serial No. 441,204. 7 Claims. (Cl. 263—46.)



1. A front wall for open hearth furnaces having buck stays, comprising a plurality of portable, removable and replaceable front wall sections, set end to end behind the buck stays, and each formed with a door opening therein through which access may be had to the interior of the furnace.

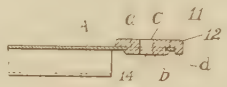
1,415,631. BOOKMARK. AUGUST GRIMM, Newark, N. J. Filed Aug. 30, 1921. Serial No. 496,891. 3 Claims. (Cl. 116—119.)

3. As a new article of manufacture a bookmark of the class described comprising a main plate, means integral with said plate for attaching it to the leaves of the book, a flexible pointer having one end attached to the said plate, a plate of any shape or size on which advertising



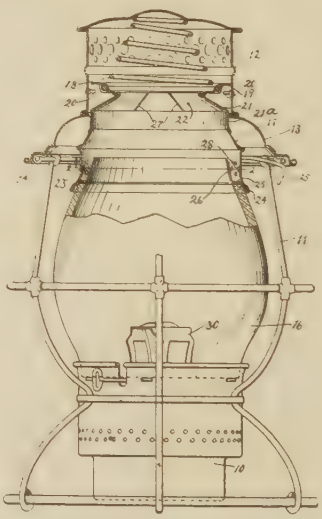
matter may be marked integral with said pointer, and a buckle slidably mounted on the pointer to bend it to fit a corner of the leaf deck of the book.

1,415,632. BONNET CORNER PAD FOR AUTOMOBILES. JOHN A. GURKE, Detroit, Mich., assignor to Essex Motors, Detroit, Mich., a Corporation of Michigan. Filed May 28, 1921. Serial No. 473,416. 4 Claims. (Cl. 180—69.)



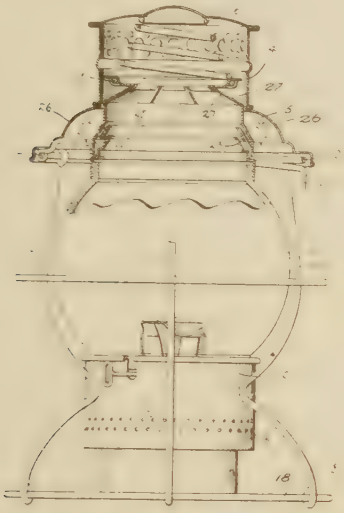
1. In combination with a bonnet of an automobile, a protecting member formed of cushioning material, said bonnet and protecting member having portions which interlock with each other, said protecting member having an edge which extends around over the proximate edges of the bonnet at the corner.

1,415,633. LANTERN. WILLIAM S. HAMM, Hubbard Woods, and FRANK A. SCHUETZ, Chicago, Ill., assignors to The Adams & Westlake Company, a Corporation of Illinois. Filed July 8, 1919. Serial No. 309,334. 6 Claims. (Cl. 240—38.)



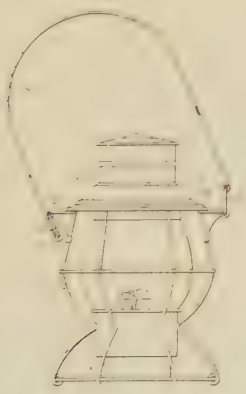
6. A signal lantern adapted for use of a light fuel oil such as kerosene, comprising, in combination, a base having air induction ports open to the atmosphere, a burner for light fuel such as kerosene, a globe inclosing the burner and having an open upper end of substantially greater cross-sectional area than is neccessary to discharge therethrough the vapors of combustion, a dome covering the upper end of the globe and having an annular series of air induction ports in its base, and a shield plate facing the last named ports.

1,415,634. LANTERN. WILLIAM S. HAMM, Hubbard Woods, Ill., assignor to The Adams & Westlake Company, a Corporation of Illinois. Filed July 11, 1921. Serial No. 483,769. 8 Claims. (Cl. 240—29.)



1. In a lantern, in combination, a dome having a series of lateral air induction ports, and a perforated shield within the dome and facing the induction ports the opening in the shield being above the induction ports, the lower end of the shield making a substantially air tight contact with the dome and the top of the shield being free to permit air currents from the ports to pass over it.

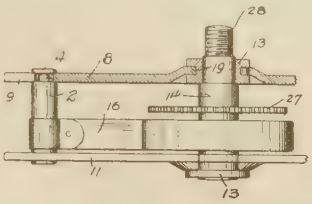
1,415,635. LANTERN. WILLIAM S. HAMM, Hubbard Woods, Ill., assignor to The Adams & Westlake Company, a Corporation of Illinois. Filed July 11, 1921. Serial No. 483,770. 10 Claims. (Cl. 220—95.)



1. In a lantern, in combination, a frame, a pair of brackets secured to the frame and each having a pivot eye, a pair of links pivotally engaging the bracket eyes, and a bail pivotally attached to the links.

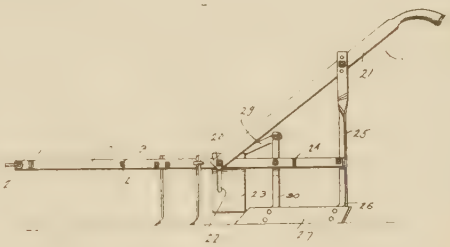
1,415,636. CLOCK FRAME. WILLIAM F. HANSON, San Francisco, Calif. Filed May 8, 1919. Serial No. 295,653. 6 Claims. (Cl. 58—52.)

5. In a clock, a front and rear frame each formed with an aperture therein and a slot connecting the aperture with the edge of the frame, and a post for connecting said frames having a flattened neck at each end whereby the



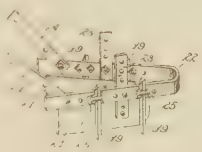
post is adapted to be moved transversely through said slots and rotated in said apertures to secure it in said frames.

1,415,637. CULTIVATOR. JESSIE F. HARDEN, Brundidge, Ala. Filed Nov. 18, 1919. Serial No. 338,821. 2 Claims. (Cl. 97—10.)



2. In combination with a straddle-bow cultivator having side pieces carrying scraper blades, of vertical plates suspended from the side pieces and disposed substantially in the line of draft to enter the soil at the sides of the plants and assist the operator in guiding the travel of the cultivator over the row of plants, and means for adjusting said plates vertically with respect to the side pieces of the cultivator; together with wings extending rearwardly from scraper blades to travel over the bed and cooperate with the aforesaid plates in guiding the cultivator, substantially as herein shown and described.

1,415,638. CULTIVATOR. JESSIE F. HARDEN, Brundidge, Ala. Filed July 27, 1920. Serial No. 399,301. 1 Claim. (Cl. 97—44.)

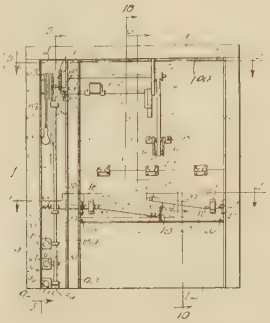


In a straddle-row cultivator, the combination with the diverging side pieces having handles of an attachment comprising a bar bent upon itself in substantially U-shape to provide side members, a plurality of harrow-teeth attached to each side member for cultivating the soil at both sides of a row of plants, vertical oblong plates attached to the side members respectively to extend longitudinally at the inner side of the harrow-teeth, and metal strips extending upwardly from the side members of the attachment for connecting the latter to the side pieces of the cultivator, substantially as shown and for the purpose set forth.

1,415,639. ELEVATOR-DOOR CONSTRUCTION. JOHN C. HEINZELMAN, Chicago, Ill. Filed Oct. 22, 1920. Serial No. 418,699. 9 Claims. (Cl. 187—59.)

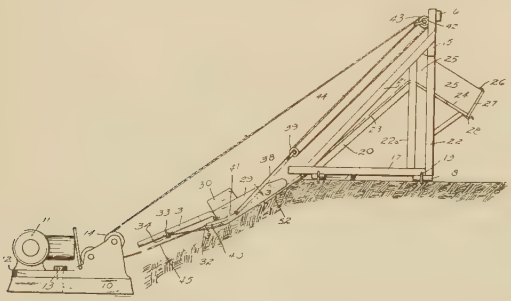
5. In an elevator construction, a frame for an opening in the wall of an elevator well, a collapsible door

hinged at its upper edge to said frame, manually operable means for moving said door into collapsed position, gravity controlled means for locking said door in collapsed position, means for operating said last named means to release the door, a contact member carried by



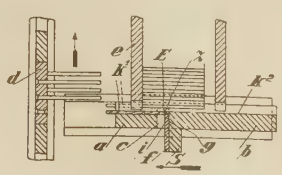
a car moving in the well for actuating said last named means when the car is in a certain position with respect to the opening in the wall of the well, means for locking said door in extended or closed position, and means for operating said last named locking means to release the door.

1,415,640. DUMPING DEVICE AND PROCESS. MORRIS O. HENDERSON, Story City, Iowa. Filed Aug. 10, 1920. Serial No. 402,660. 8 Claims. (Cl. 37—19.)



1. In a machine of the class described, a base, a hoisting mechanism pivotally supported thereon, a dump having upright members, rearwardly inclined brace members, an inclined floor having at its upper end a downwardly inclined extension, side walls on said extension, a pulley supported at the upper part of said dump above the highest part of said inclined floor, a slip, a bail connected with said slip, a pulley on said bail, a rope connected with said dump and extended around said last pulley, thence around said first pulley and thence to said hoisting mechanism, a draft device connected with said slip forwardly of the points of connection of said bail, and a handle on said slip adapted to serve as a stop for said bail.

1,415,641. MATCH-MAKING MACHINE. LUDWIG HENNINGER, Durlach, Germany, assignor to Badische Maschinenfabrik & Eisengiesserei vormals G. Sebold und Sebold & Meff, Durlach, Germany. Filed Jan. 3, 1922. Serial No. 526,850. 3 Claims. (Cl. 144—64.)

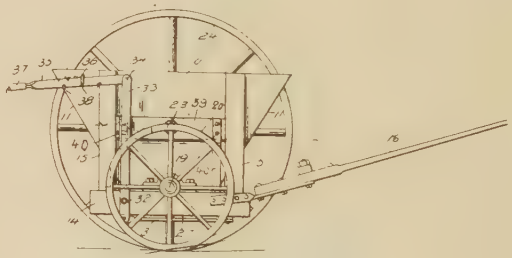


1. The combination, in an automatic machine for manufacturing matches, of a hopper for the sticks, a stepped push-plate below said hopper provided with front and rear grooves for the reception of the sticks and a waste discharge slot at the step, means for reciprocating the push-plate, and a device for raising the ends of the sticks situated above said slot to such a height that the said ends lie with their upper surfaces at least flush with the bottoms of the rear grooves in said push-plate.

1,415,642. FLEXED-BLOTTER HOLDER. NEWTON S. HILLYARD, St. Joseph, Mo. Filed July 20, 1920. Serial No. 397,584. 1 Claim. (Cl. 120—24.)

A sheet holder transversely of segmental form; a pressing edge formed of one of the longitudinal edge portions of said holder return bent upon itself; a holding edge on the other longitudinal edge of said holder said holding edge being formed of a portion of said holder bent at an incline inward and upward with a space between said holding edge and said pressing edge for insertion therebetween of one of the transverse edges of an elastic flexed back sheet and of a flexed plurality of perforated sheets of blotting paper; another sheet holder of the same construction for similarly holding the opposite ends of said sheets; and a rod the ends of which are secured in the center of one of the sides of said holders respectively at a right angle thereto with the pressing edges of said holders beneath the respective ends of said rod.

1,415,643. FERTILIZER DISTRIBUTOR. ALEXANDER A. HODGES, Headland, Ala. Filed Apr. 21, 1921. Serial No. 463,261. 1 Claim. (Cl. 275—2.)

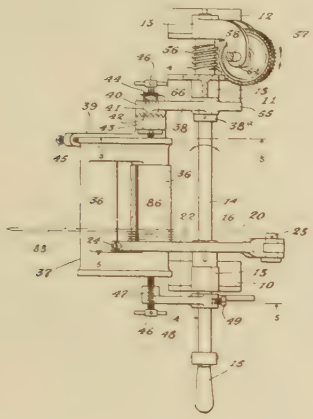


An apparatus of the class described comprising a receptacle having a discharge opening, an upper axle extending through said receptacle and adapted to carry agitating means, a lower axle extending through said receptacle and adapted to carry feeding means, a relatively large traction wheel rotative with said upper axle, and a relatively small traction wheel rotative with said lower axle, whereby the upper axle and its attachment is operative faster than the lower axle and its attachment.

1,415,644. WINDING MECHANISM. ANDREW J. HOLMES, Tacoma, Wash. Filed Jan. 25, 1921. Serial No. 439,888. 4 Claims. (Cl. 242—9.)

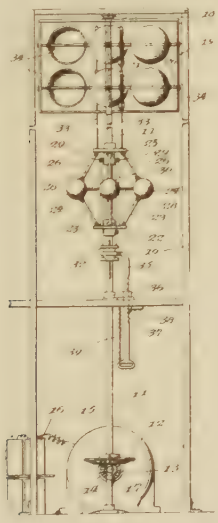
1. A coil winding mechanism comprising support bearings; a shaft rotatably mounted within said bearings, means to rotate said shaft, a work holder disposed for selective angular adjustment about said shaft, clamping

means to retain said work holder in selective angular positions, means carried by said work holder adapted to



support and rotate the element upon which the coil is to be wound, and means actuated by said shaft adapted to rotate said last named means.

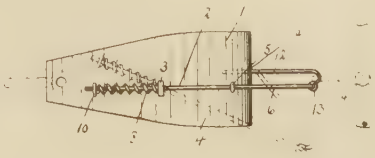
1,415,645. WIND WHEEL. SAMUEL HOLTERUD, Duluth, Minn. Filed Aug. 1, 1921. Serial No. 488,944. 3 Claims. (Cl. 170—20.)



1. A windmill device comprising a wheel having feathering blades, a vertical shaft carrying the wheel and rotatable therewith, a governor on the shaft and including sliding collars and centrifugal weights connected with the collars, cords connected with one of the collars and with the vanes, a locking rod operatively engaged with the other collar, and cords connected with the last-named collar and with the locking rod and engage with the first-named collar.

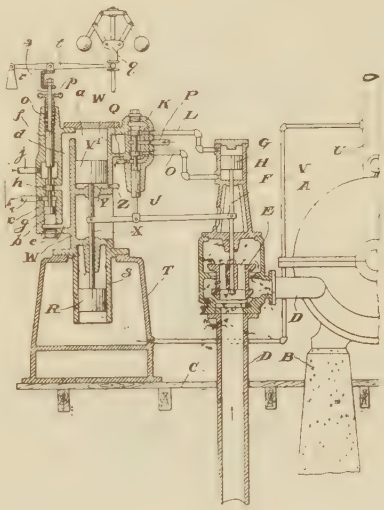
1,415,646. AUTOMATIC RELEASE COUPLING. GEORGE WILBER HOWDEN, Pompey, N. Y. Filed Mar. 28, 1921. Serial No. 456,424. 2 Claims. (Cl. 213—67.)

1. An automatic coupling comprising a draft bar, a draft plate, a resilient connection between said draft bar and draft plate permitting relative extensible movement, removable means engaging the draft plate and draft bar for preventing angular rocking movement of the draft bar with respect to the draft plate, and a coupling hook



pivotally connected to the draft bar having a part engaging the draft plate under normal load conditions, said part released from engagement with said draft plate by relative extensible movement of the draft bar and draft plate against the action of said resilient connection.

1,415,647 PRESSURE REGULATOR FOR TURBOCOMPRESSORS. LESLIE R. HUFF, Phillipsburg, N. J., assignor to Ingersoll-Rand Company, Jersey City, N. J., a Corporation of New Jersey. Filed Feb. 19, 1921. Serial No. 446,388. 8 Claims. (Cl. 103—92.)

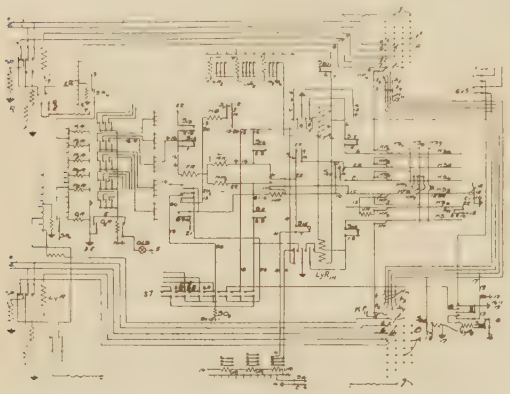


1. A pressure regulator for a motor driven turbocompressor, comprising a movable fluid pressure regulating member subject to the pressure in the discharge of the compressor and operatively connected to control the power supplied to the motor, a fluid pressure thrust compensating device connected to the said movable regulating member and means for automatically maintaining substantially constant pressure in said compensating device.

1,415,648. SELECTOR SWITCH. CARL AXEL WILHELM HULTMAN, Stockholm, Sweden. Filed Dec. 23, 1918. Serial No. 268,068. 12 Claims. (Cl. 179—18.)

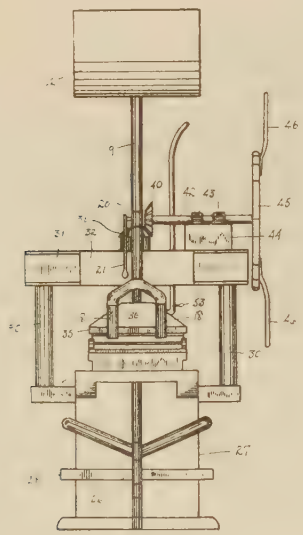
1. In a selector switch having hunting movements in two different co-ordinate directions, means for starting the contact arms from a variable initial position in the first co-ordinate direction upon a call being initiated,

means for setting the contact arms in the first coordinate direction for the selection of a contact row, and



means for setting the contact arms in the second coordinate direction for the selection of a particular contact.

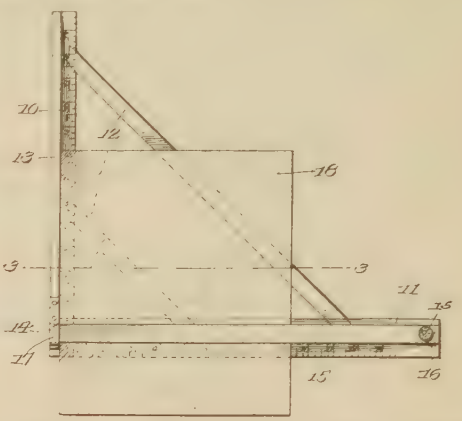
1,415,649. MACHINE FOR MAKING SHINGLES. ROBERT W. JAGENBURG, Utica, N. Y., assignor to M. William Bray, Utica, N. Y. Filed July 17, 1920. Serial No. 397,043. 11 Claims. (Cl. 25—42.)



1. In a machine for making shingles, a mould having beveled edges covered with rubber, and means cooperating with said mould, whereby to form shingles with beveled edges.

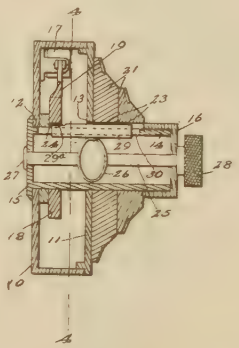
1,415,650. GLASS-CUTTING SQUARE. HENRY E. JOHNSON, Fort Bragg, Calif. Filed June 1, 1921. Serial No. 474,215. 1 Claim. (Cl. 33—32.)

A glass support and cutting guide comprising a pair of right-angularly connected arms, oblique braces between the arms, the arms and braces being adapted to support a sheet of glass to be cut, one of the arms having a vertical longitudinal stop rib for one edge of the glass, both of the arms having graduations, the inner end of the rib terminating adjacent the inner edge face of the other arm, a cutter guiding arm pivotally connected to the outer end of said other arm, and a detent carried by the said inner end of the rib for gripping engagement with the free end of the pivoted arm, to releasably hold the



arm against the end of the rib and the glass on the angularly connected arms and braces.

1,415,651. LOCK. ANDREW KENDECHY, Cleveland, Ohio. Filed June 15, 1920. Serial No. 389,167. 1 Claim. (Cl. 70—53.)



A device of the class described comprising a casing provided with a central opening a cover plate having an opening of a greater diameter than the opening in said casing and provided with an indicating arrow, a hollow cylindrical member extending through the openings in said casing and said cover and provided with a longitudinally extending slot, a flanged head extending from one end of said member and engaging said casing, a threaded cap removably secured to the opposite end of said member, a locking bolt mounted for sliding movement within the casing and provided with a shank having bifurcated ends, a disk rotatably mounted upon said cylindrical member, having a notch formed therein and provided with a slotted lug pivotally secured to the bifurcated end of the shank of said lock-bolt, a plurality of disks rotatably mounted upon said cylindrical member upon the outside of said casing provided upon their marginal edges with indicia and having notches formed therein, a sectional rod located in said hollow cylindrical member and extending through said head and said cap, an oval shaped spring secured to the adjacent ends of the sections of said rod, a knurled knob secured to one end of said rod, said sectional rod at the opposite end thereof engaging the head of said cylindrical member, and a dog secured to said spring and adapted to engage the notches in said disk.

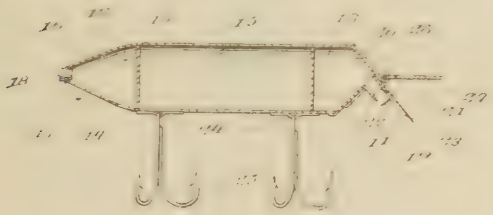
1,415,652. BRUSH. HARRY JAMES KIRKPATRICK, Toronto, Ontario, Canada, assignor to The Boeckh Company, Limited, Toronto, Canada. Filed Aug. 9, 1921. Serial No. 491,030. 3 Claims. (Cl. 15—193.)

1. A brush comprising an oblong metal plate having a plurality of holes therein; bristle tufts extending

through said holes; a mass of bristle sealing compound applied to the back of the plate and the inner ends of the tufts of bristles; a sheet metal back having a rim within which the plate is adapted to fit, the back having

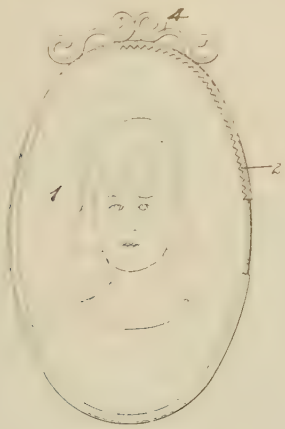
a central depression stamped longitudinally in its back forming a longitudinal shoulder engageable by the mass of sealing compound and the edge of the rim being turned over the plate to hold it in place.

1,415,653. ARTIFICIAL BAIT. FRANK L. KOEPKE Ridgefield, Wash. Filed Mar. 19, 1921. Serial No. 453,618. 1 Claim. (Cl. 43—46.)



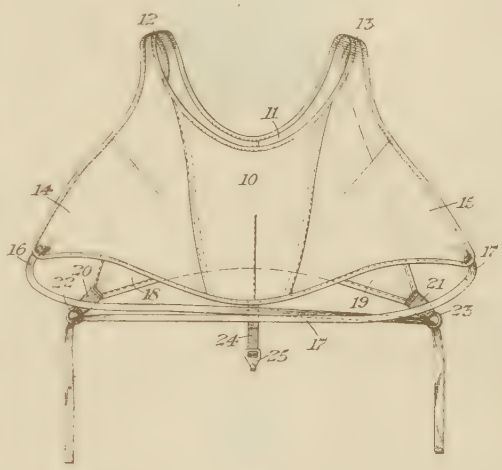
An artificial bait comprising a hollow elongated body having its rear end tapered and provided with a filling opening in the apex thereof, a closure removable in said opening, the forward end of the body beveled from the upper and lower sides toward the transverse center of the end of the body, a filling nozzle in the forward end of the body extending at right angles from the lower bevel face and provided with a removable stopper, and a downwardly and forwardly extending and downwardly widening fin on the upper bevel face of the forward end of the body for contact with the water of a stream to deflect the body downwardly thereinto, said fin extending in parallel relation to the filling nozzle and projecting past the end thereof.

1,415,654. PICTURE FRAME. LOUIS KOPPERSMITH, New York, N. Y. Filed Apr. 20, 1921. Serial No. 462,826. 2 Claims. (Cl. 40—154.)



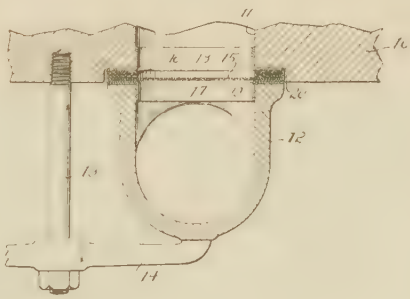
1. A frame comprising a sheet metal strip angular in cross-section to provide a channel along its inner side, the outer edge of said strip being serrated, said serrations terminating short of the bottom of said channel.

1,415,655. BRASSIÈRE. WALDEMAR KOPS, New York, N. Y., assignor, by mesne assignments, to Nemo Circlet Company, Inc., a Corporation of New York. Filed Feb. 17, 1921. Serial No. 445,642. 4 Claims. (Cl. 2—73.)



1. In a brassière, a front member having portions adapted to extend partially around the waist of the wearer, a back member having portions adapted to extend partially around the waist of the wearer, the said portions of the front and back members being adapted to overlie each other at the sides of the wearer, and tapes connected to the ends of one of the said members and adapted to continue around the waist of the wearer and to be threaded through and to coact with devices associated with the ends of the other member whereby in drawing the tapes and securing the same together the said members are simultaneously adjusted to position on the body of the wearer.

1,415,656. GASKET FOR INTAKE MANIFOLDS. GEORGE KUNZ, Cleveland, Ohio. Filed Feb. 10, 1921. Serial No. 443,975. 12 Claims. (Cl. 219—38.)

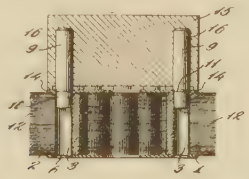


1. In combination an intake manifold, a screen extending transversely thereof, a packing ring extending around the marginal edge of the screen, and means for securing the ring to the screen, said means being adapted to be inserted across the intake manifold in an internal combustion engine.

1,415,657. PROCESS OF MAKING BRUSHES. ARTHUR W. LAMP, Cleveland, Ohio, assignor to Walter J. Carter, Cleveland, Ohio. Filed Aug. 13, 1920. Serial No. 403,253. 7 Claims. (Cl. 300—21.)

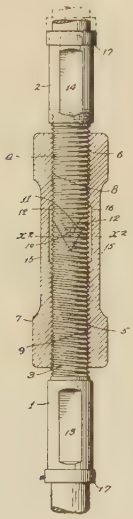
6. The process of making a brush which comprises providing a head with posts having removable extensions,

applying tuft material to the posts and extensions, compressing the tuft material toward said head and strip-



ping it from the extensions, and securing a second head to the said posts and in operative engagement with such compressed tuft material.

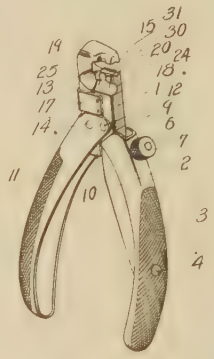
1,415,658. ROD AND TOOL COUPLING. SAMUEL E. LANE, Santa Ana, Calif., assignor of one-half to William Baker, Santa Ana, Calif. Filed Nov. 17, 1919. Serial No. 338,780. 4 Claims. (Cl. 287—105.)



1. A coupling for sucker rods comprising right and left threaded pins provided at their ends with male and female V-shaped members adapted to slip endwise into engagement with each other to prevent relative rotation, and a collar internally threaded with right and left hand screw threads and adapted to be connected to said members to bring said members into and out of engagement with each other for the purpose of preventing disconnection of the members except when rotation of the collar relative to both such members alike, or vice-versa, is effected; said rods and said coupling being provided with plane wrench faces arranged in predetermined position relative to the slip joint members so that when wrenches are applied to the wrench faces of the sections, and their handles are extended to predetermined positions, the slip joint members will be in position to allow the joint to be united so as to prevent relative rotation of the bodies.

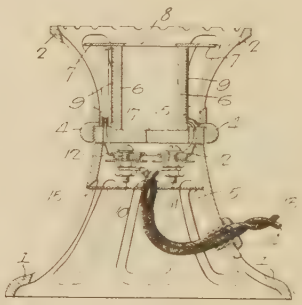
1,415,659. OPTICIAN'S TOOL. JAMES M. LAWLOR, Topeka, Kans., assignor of one-half to T. H. Cutsinger, Topeka, Kans. Filed Oct. 1, 1920. Serial No. 414,035. 6 Claims. (Cl. 81—15.)

1. An optician's tool comprising a rigid jaw member having a longitudinal groove and a transverse groove in its outer face parallel with the end of the jaw, and a grooved clamping face at its end, a longitudinally movable jaw member having a groove in its outer face aligning with the longitudinal groove in the rigid jaw member, and means for moving the movable jaw member toward



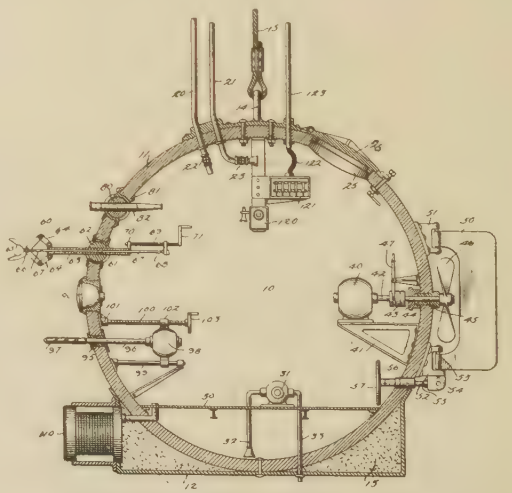
and away from the rigid jaw member in parallel relation thereto.

1,415,660. ELECTRIC HEATER. RICHARD G. LEDIG, Philadelphia, Pa., assignor to A. Mecky Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 27, 1921. Serial No. 495,886. 7 Claims. (Cl. 219—43.)



1. The combination in an electric heater of a frame including two hollow frusto-conical members; means for holding said members with their small diameter ends together; a refractory structure fixed within said frame; and a heating element wound on said structure.

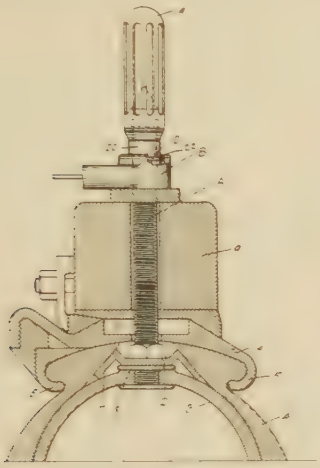
1,415,661. DEEP-SEA SALVAGE APPARATUS. ALFRED E. LEMON, Douglas, Ariz. Filed Dec. 30, 1919. Serial No. 348,317. 1 Claim. (Cl. 61—69.)



A gripping device for a deep sea salvage apparatus, comprising a tube adapted to be mounted in the wall of

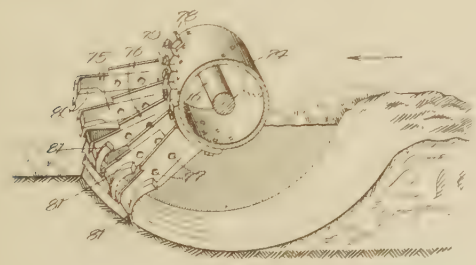
the body of the apparatus, a rod slidable in the tube, a pair of jaws fulcrumed on the outer end of the said rod, links connecting the said jaws with the outer end of the said tube, a nut on the inner end of the said rod, a screw rod screwing in the said nut and having one end mounted to turn on the said tube, and a handle on the other end of the said screw rod.

1,415,662. LOCK. HENRI G. LEVY, San Francisco, Calif., assignor to Robert H. Butters, Atlanta, Ga. Filed Aug. 15, 1921. Serial No. 492,501. 3 Claims. (Cl. 70—122.)



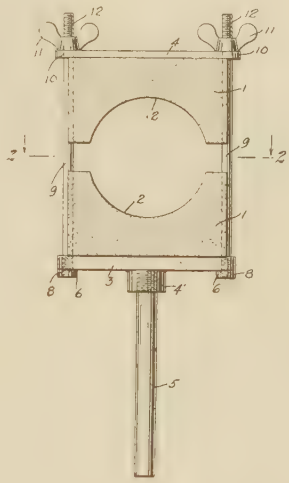
1. A lock comprising in combination a stem adapted for turning movement about its axis and a block which may be fitted closely and conformably upon the stem, said block comprising two parts and lock mechanism incorporated with one part for cooperation with the other and said parts having relative movement by which they may be engaged with the stem in a manner to hold the block against endwise and turning movement on the stem and also may be brought into the relative position required for operation of said lock mechanism.

1,415,663. ROTARY PLOW. CHARLES L. LILLEBERG, Chicago, Ill. Filed June 28, 1917. Serial No. 177,479. 1 Claim. (Cl. 97—62.)



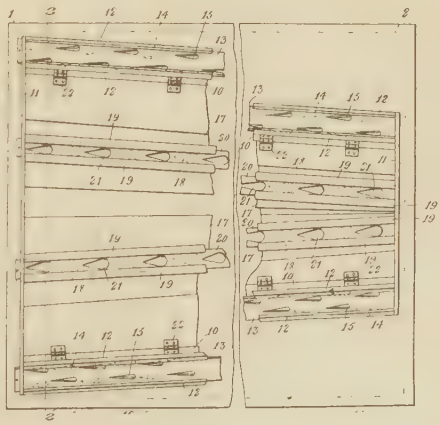
A plow structure including a rotary plow element having a rotatable support; and a plurality of staggered sets of plow knives carried by said support, the knives of each set operating substantially in the same plane which is the plane of rotation of said support, said knives having outer angular ends extending transversely of the plow structure, and substantially parallel with the axis of said rotary plow element, the end portions of the knives of each set terminating at the plane of rotation of the inner portions of the knives of the adjacent set, the cutting edges of said knives extending along their angular ends and being continued from their angular ends along their radial portions.

1,415,664. GRINDING TOOL. PAUL UCLAIR LOVELACE, Clinton, Okla. Filed July 16, 1921. Serial No. 485,365. 2 Claims. (Cl. 51—206.)



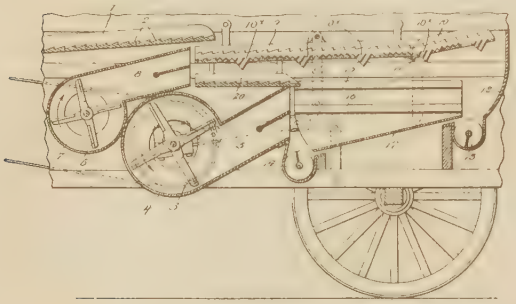
1. A tool of the character described, comprising a pair of rectangular grinding stones having concentric opposed curved recesses, said stones having grooves in their outer edges, bars engaging the backs or rear faces of the stones, and clamping bolts located in said grooves and holding the bars in relative position.

1,415,665. REED-ORGAN SWELL. ANDERS GUSTAF LUNDQUIST and KARL JOHAN ALGOT JONSON, Stockholm, Sweden, assignors to Aktiebolaget Skandinaviska Orgel-Och Piano-Fabriken, Stockholm, Sweden, a Corporation. Filed Oct. 28, 1920. Serial No. 420,305. 2 Claims. (Cl. 84—372.)



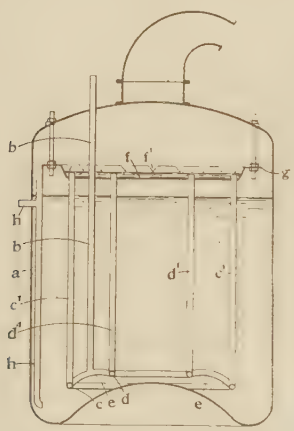
1. A reed organ or the like instrument in which the tongue sare mounted within a casing provided with air-openings or apertures and one or more valve members adapted to control these apertures, the said valve members consisting of slidable shutters provided with a corresponding number of apertures which are gradually brought into registration with the first mentioned apertures when the shutter is displaced, the apertures tapering substantially to a point.

1,415,666. CLEANING ATTACHMENT FOR THRASHING MACHINES. JOHN R. MCMILLAN and ERNEST C. MCMILLAN, Bushong, Kans. Filed July 17, 1920. Serial No. 396,976. 1 Claim. (Cl. 130—24.)



In combination, a grain pan with serrations, a chaffer body arranged below and in spaced relation to the rear portion of said pan and extending rearwardly of the same, a rearwardly extending chaffer section connected to the rear end of the chaffer body, a casing below the chaffer body and chaffer extension, conveyors in said casing, a shoe sieve arranged in said casing and below the chaffer body and chaffer section, a short grain pan section arranged under and in spaced relation to the chaffer body, spouts carried by the chaffer body and extension, the forward of said spouts being arranged to discharge grain to said short grain pan section, means for delivering a rearwardly directed blast of air between the rear end of the grain pan and the forward ends of the chaffer body and the short grain pan section, and means for delivering a rearwardly directed blast of air into the casing and above and below the shoe sieve therein.

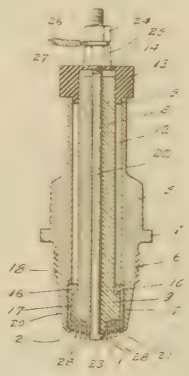
1,415,667. DISTILLATION OR EVAPORATION OF LIQUIDS. JOHN LEWIS MAJOR, Sculcoates, Hull, England. Filed Jan. 19, 1918. Serial No. 212,751. 3 Claims. (Cl. 196—25.)



1. A method of continuous distillation of liquid in a still subject to external heat, consisting in causing the liquid to be distilled to be fed into the still in a plurality of upward streams through but not in contact with the main bulk of liquid in the still under conditions in which the liquid fed gradually acquires the temperature necessary for the distillation to be effected, the said liquid passing to the upper part of the still above the bulk of liquid therein where the lighter fractions are disengaged for removal from the still, the liquid then passing into the main bulk of liquid in the still, substantially as described.

2. A still consisting of a vessel subject to external heat and a plurality of pipes within the said vessel through which the liquid to be distilled passes upwardly in a plurality of streams, the said pipes passing up through the bulk of liquid in the still and extending from near the bottom of the still into a position above the level of the bulk of liquid within the still, whence the liquid to be distilled discharges into the still, substantially as described.

1,415,668. SPARK PLUG. GABRIEL MAROTTA, Seattle, Wash., assignor of one-half to Abram Van Aalst, Seattle, Wash. Filed Sept. 2, 1920. Serial No. 407,781. 1 Claim. (Cl. 123—169.)



A spark plug comprising a metal shell provided with a central opening with an enlarged lower portion to afford a shoulder, a sleeve of insulating material of less diameter than said opening extending lengthwise therethrough, said sleeve having a head of relatively large diameter disposed within the enlarged lower portion of the shell opening and spaced from the walls thereof, said head having a convex extremity, insulating material surrounding said head, a copper jacket enclosing said insulating material the lower edge of said copper jacket and the lower edge of said shell being bent over the edge of said head, a cap of insulating material arranged to seat on said shell and having an annular projection extending into the annular space between said shell and said sleeve, an electrode extending lengthwise through said sleeve, the lower end of said electrode protruding a short distance from the center of said head, and a plurality of metal posts embedded in said head in spaced relation beween said central electrode and said shell.

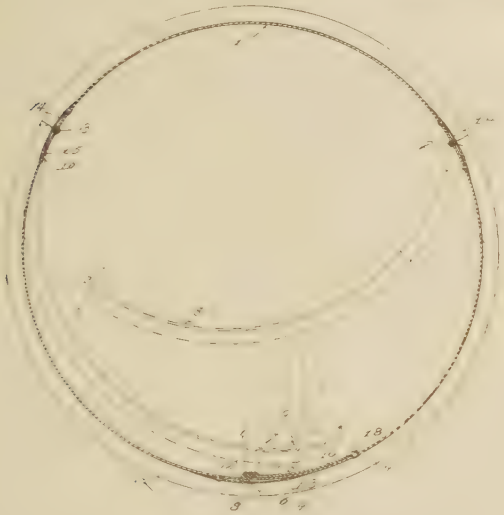
1,415,669. PROCESS FOR THE PRODUCTION OF ICE CREAM. LEE H. P. MAYNARD, Philadelphia, Pa., assignor of one-half to George P. Sacks, Bradley Hills, Md. Filed Dec. 30, 1920. Serial No. 434,117. Renewed Dec. 7, 1921. Serial No. 520,693. 9 Claims. (Cl. 99—11.)

1. The herein described process of producing an ice cream mix, consisting in producing an acid milk mixture, an alkali cream emulsification, and mixing the milk mixture and the emulsion under agitation.

1,415,670. WHEEL RIM. JAQUELIN M. MEREDITH, Jr., Norfolk, Va. Filed Apr. 29, 1920. Serial No. 377,520. 6 Claims. (Cl. 301—33.)

1. In a device of the class specified, a transversely split rim provided with a plurality of segments comprising two relatively free and movable segments, a transversely disposed fixed pin mounted adjacent to the end of one of said movable segments and having the greater portion thereof projecting inwardly clear of the segment on which it is mounted, and a locking lever carried by the remaining movable segment end adjacent to said pin, the locking

lever having an enlarged cam end eccentrically connected to its segment and also provided with a recess in rear of the said cam end to receive and exert a frictional stress

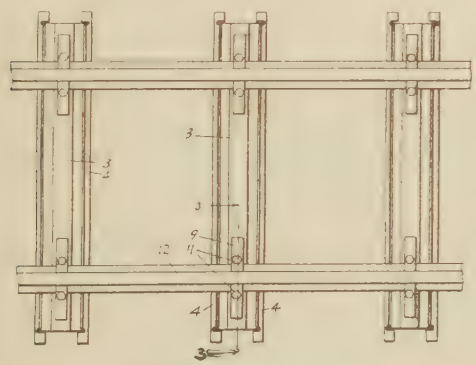


on the fixed pin of the other segment and operating to draw the movable segments into alignment and also to distend the latter and separate and collapse the segments.

1,415,671. TANNING HIDES AND SKINS. ERNEST WYNDHAM MERRY, Sheffield, England, assignor to Pyrotan Leather Corporation, Wilmington, Del., a Corporation of Delaware. Filed Feb. 11, 1919. Serial No. 276,341. 4 Claims. (Cl. 149—5.)

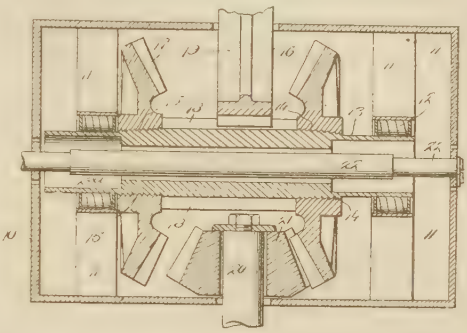
2. A method of combined tannage of hides and skins, to produce heat and moisture resistant leather, which comprises the successive treatment of the hide with solutions including a soluble pyrophosphate and including a chrome liquor, the latter being employed in proportions varying from one to eight per cent of the weight of the hide substance treated.

1,415,672. METALLIC RAILWAY TIE. DUNCAN MILLER, deceased, by Guy A. Ramsdell, administrator, Indianapolis, Ind. Filed Oct. 4, 1921. Serial No. 505,291. 5 Claims. (Cl. 238—60.)



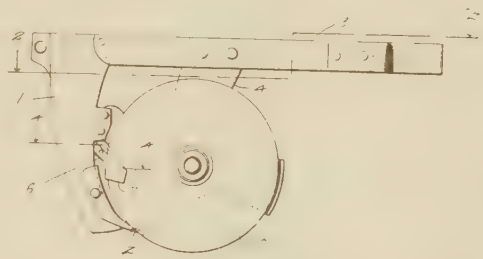
5. In a railway cross tie, the combination of a suitable base, an A-shaped upper portion of sheet metal, a heavy supporting A-shaped plate disposed in the main shell and beneath the rail, clip pieces for engaging the opposite sides of the base of a rail and conformed thereto, and a U-shaped bolt disposed to embrace said heavy support with its upper ends extended upwardly through the top of the shell and retained upon the clip pieces by suitable nuts thereon, coacting as specified.

1,415,673. REVERSE-GEAR STRUCTURE. CLAUD E. MILLS, Des Moines, Iowa. Filed July 8, 1919. Serial No. 309,411. 1 Claim. (Cl. 74—58.)



In a device of the class described, spaced supporting members, a hollow hub slidably and rotatably mounted in said members, said hub having mounted therein spaced bevelled gears, having between said gears teeth, a gear meshing with said teeth, a bevelled gear adapted to mesh with either of said first bevelled gears or to be free from both in different positions of the sliding movement of said hub, said hub having near its ends, enlarged recesses with shoulders at their inner portions, a shaft extended through said hub and projecting therefrom at its ends, and means for supporting said shaft independently of said hub.

1,415,674. HOE DRILL. WILLIAM H. MITCHELL, Sulphur Well, Ky. Filed June 30, 1920. Serial No. 393,141. 1 Claim. (Cl. 97—72.)



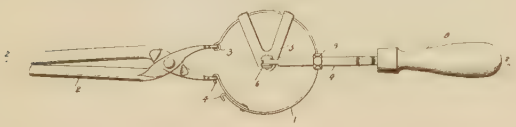
The combination, in an implement of the class described, of beams, a hoe secured to and depending from said beams at their rear ends, a plow point on said hoe, a standard secured intermediate said beams and to said hoe, angularly disposed disks journaled to and on opposite sides of said standard and relatively close to the plow point, said plow point extending intermediate said disks to prevent accumulation of trash, a bracket on said hoe intermediate the point and connection of the standard thereto, and scraper blades extending from said bracket and engaging opposite sides of each disk.

1,415,675. AUTOMOBILE RIM. THOMAS MOHN and ALBERT MOHN, Red Wing, Minn. Filed Nov. 5, 1920. Serial No. 421,962. 2 Claims. (Cl. 301—33.)

1. A tire rim comprising a rim body having separable ends, a tongue secured to the rim body at one of said

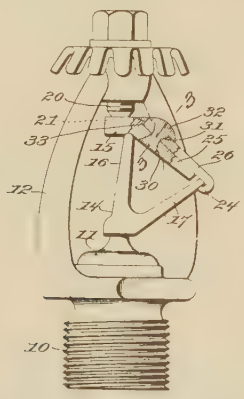
ends, a locking plate hinged to the rim body adjacent the other end and to the tongue, and an extension formed on one side edge of the plate and of a thickness corresponding to the thickness of said plate to permit the latter to rest evenly on the felly of a wheel and adapted to be engaged by a tool to swing the locking plate for expanding and contracting the rim body.

1,415,676. CAN OPENER. CHAILLIE E. MORGAN, Rockville, Ind. Filed Apr. 27, 1921. Serial No. 464,847. 1 Claim. (Cl. 30—3.)



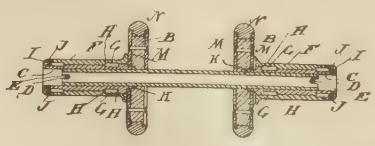
A device of the character specified comprising a can holder including a clamping band, and pivoted members engaging opposite ends of said band, a bracket secured to an end portion of said band, a post pivotally mounted upon the inner end of the bracket, and an arm pivoted to the post and provided with a cutter adjustable thereon.

1,415,677. SPRINKLER HEAD. ADELBERT F. MOWRY, Worcester, Mass. Filed Aug. 11, 1919. Serial No. 316,577. 4 Claims. (Cl. 169—39.)



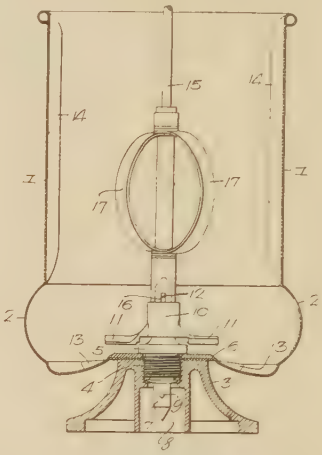
1. An automatic sprinkler head having, in combination, a nozzle having a frame, a cap adapted to close the nozzle, a two-member heat responsive device interposed between the cap and frame consisting of a triangular structure, two legs of the triangular structure being formed by a V-shaped two armed member and the third leg by a single member cooperating with the ends of the arms of said two armed member, said heat responsive device having provision whereby one leg of the triangular structure is subjected to a direct tensile stress in the direction of its length, and a fusible joint in said leg.

1,415,678. STRIPPING REEL. OWEN MOYNIHAN, Cleveland, Ohio. Filed Apr. 14, 1920. Serial No. 373,717. 3 Claims. (Cl. 242—77.)



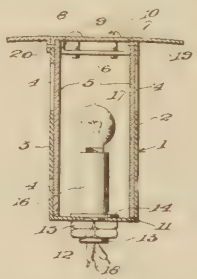
1. In a reel for the purpose described, a spindle, spaced discs mounted thereon and revolvable therewith, said discs provided with friction margins, a sleeve detachably secured to said spindle at each end, and outer sleeves adapted to be held by the hands, said spindle and inner sleeves rotatable within said outer sleeves.

1,415,679. DRINK-MIXING MACHINE. WILLIAM M. MURPHY, Glenside, Pa. Filed Jan. 8, 1921. Serial No. 435,846. 10 Claims. (Cl. 251—107.)



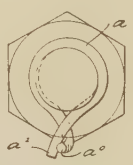
1. The combination in a mixing device of a bowl; a base therefor having a threaded opening; a threaded sleeve formed to fit the opening of the base and clamp the bowl thereto; and a liquid propeller rotatably mounted on the sleeve.

1,415,680. ILLUMINATED PENNANT. THOMAS J. NAVINS, Ottawa, Ill. Filed Apr. 9, 1921. Serial No. 459,841. 5 Claims. (Cl. 40—133.)



1. In a device as set forth a casing provided with suitable indicia cut in one side, a translucent panel within said casing against said side, brace arms within said casing and extending thereacross, said brace arms having angular portions for engaging said translucent panel and clamping it in position.

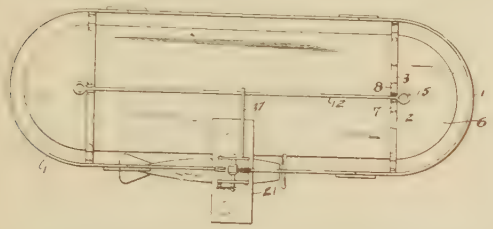
1,415,681. DEVICE FOR LOCKING NUTS AND THE LIKE. OSWALD NETTLEFOLD, London, England. Filed Jan. 12, 1921. Serial No. 436,756. 2 Claims. (Cl. 151—30.)



1. A device for locking nuts or the like, consisting of a metal band adapted to seat itself in the grooves of the

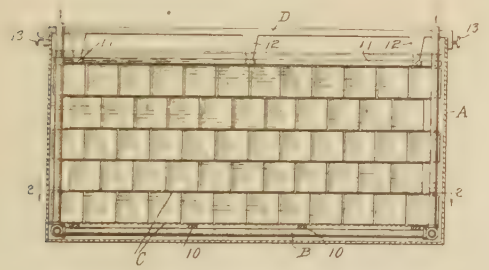
screw thread of the bolt or stud to which the nut or the like is applied and having its ends shaped to interlock with each other in the lock-fast position with the band closely engaging and cross-threading the thread of the bolt.

1,415,682. TOY. HERMAN NORDMARK, Chicago, Ill., assignor of one-half to Thomas J. Johnson, Chicago, Ill. Filed Apr. 20, 1920. Serial No. 375,351. Renewed Oct. 24, 1921. Serial No. 510,101. 5 Claims. (Cl. 104—23.)



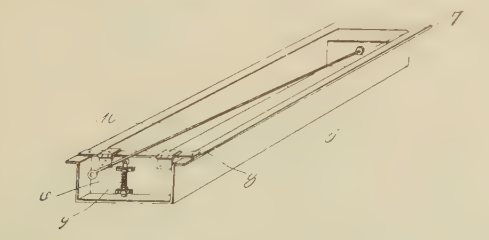
1. In an electric toy, an elevated track having substantially parallel elongated portions, the ends of which are connected by curved portions, a carriage movable upon said track, a toy figure suspended from said carriage, a driving motor on the carriage, an electric conductor arranged between and occupying a position substantially parallel with the parallel portions of the track and a member projecting from the carriage and adapted to contact with said conductor.

1,415,683. PROCESS OF TREATING SEPARATORS FOR STORAGE BATTERIES. HORACE W. NORDYKE, Indianapolis, Ind., assignor to Indianapolis Manufacturing Company, Indianapolis, Ind., a Corporation of Indiana. Filed Apr. 26, 1921. Serial No. 464,607. 8 Claims. (Cl. 204—29.)



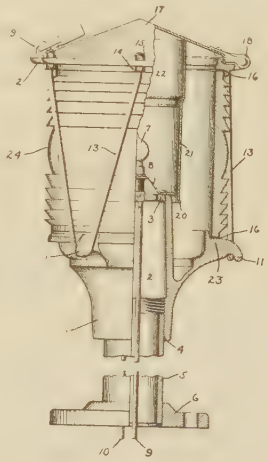
2. In the manufacture of wood separators for storage batteries, the process of removing from the wood pore obstructing substances by subjecting the wood to boiling in a solution of a salt of sulphuric or sulphurous acid and vaporizing off the volatile substances by passing live steam through the solution, substantially as set forth.

1,415,684. GRAIN-SAVING DEVICE. ADOLPH G. NORSKOG, Miles City, Mont. Filed Feb. 18, 1921. Serial No. 445,955. 1 Claim. (Cl. 56—207.)



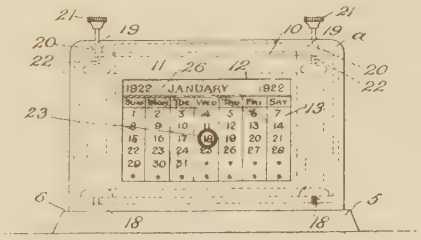
A grain saving device comprising an open topped trough or receptacle located between the platform conveyor and binder elevator of a grain binder, a bar extending over the rear end of the receptacle, a door for closing the rear end of the receptacle hinged to the bar, a fastening means for the door, and a scraper having a head corresponding in size and shape to the interior of the receptacle, located in the receptacle.

1,415,685. NAVIGATION LIGHT. JAMES A. O'NEIL, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Apr. 22, 1921. Serial No. 463,604. 2 Claims. (Cl. 240—11.)



1. An electric lighting unit comprising a tubular base member having an external circular flange formed with ears, an electric lamp supported by said base member, a cylindrical lens mounted on said flange, a ring carrying a hinged cover supported by the lens, and V-shaped members engaging said ears removably secured at their free ends to said ring.

1,415,686. CALENDAR. LEO OPPENHEIM, New York, N. Y. Filed Feb. 2, 1922. Serial No. 533,587. 1 Claim. (Cl. 40—117.)

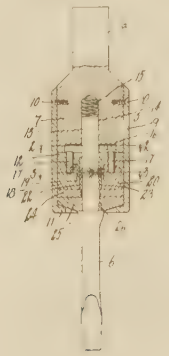


In a calendar, the combination of a casing having an opening in the front side thereof, a month sheet removably mounted within the casing and visible through the opening and a movable indicating web mounted within the casing and arranged over the visible surface of the month sheet, said web provided with a series of circles arranged in echelon in order that dates on the month sheet may be successively indicated when the web is moved.

1,415,687. SCREW-DRIVER CHUCK FOR DRILL PRESSES. MAGNAR ORO, Roxbury, Mass. Filed Jan. 3, 1921. Serial No. 434,688. 9 Claims. (Cl. 144—32.)

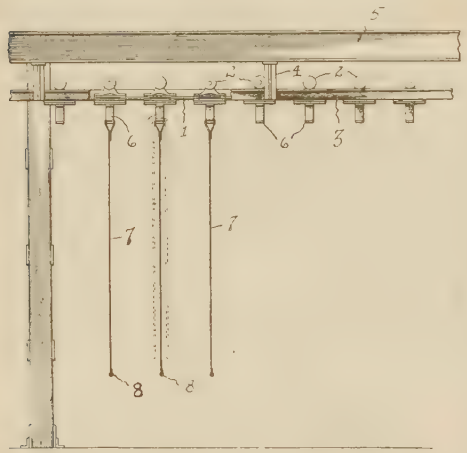
1. A chuck having, in combination, a rotatable body portion adapted to receive a tool, a sleeve attached to said body portion and co-operating therewith to form a

chamber, a pair of clamping jaws located within said chamber normally disconnected from said body portion



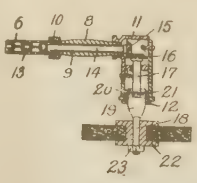
and free to rotate independently thereof and frictionally engaging said tool and means to rotate said jaws in unison with said body portion and thereby rotate said tool.

1,415,688. CONVEYER. MAX. H. PADE, Akron, Ohio, assignor to The Firestone Tire and Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed Nov. 6, 1920. Serial No. 422,296. 6 Claims. (Cl. 198—177.)



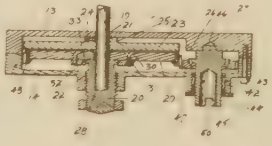
1. A conveyer for the uses and purposes set forth, comprising a moving conveyer element, a support on said conveyer element from which material may be suspended and a separator connected with the support to prevent contact of the material.

1,415,689. SHOE-SHINING MACHINE. JOSEPH ARTHUR PARENT, Montreal, Quebec, Canada. Filed Feb. 14, 1921. Serial No. 444,816. 2 Claims. (Cl. 15—93.)



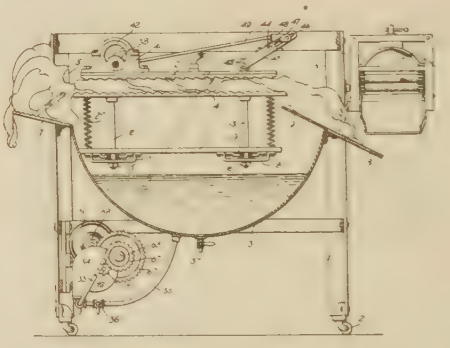
1. In a brushing machine, the combination of a portable casing having a handle rigidly secured to it for moving it about; a shaft section journaled within said casing; driving means connected to one end of said shaft section; a bushing in said casing; a second shaft section disposed within the casing in alinement with the first section and having an enlargement which fits in said bushing and is provided with a pair of spaced lugs between which the other end of said first section is interposed, the second section projecting outwardly of said casing; a pin passing through said lugs and the interposed end of the first section to connect the two sections together; and a brush carried by the projecting end of the second section.

1,415,690. MOTION-TRANSMISSION DEVICE. MILTON L. PARRET, Marshalltown, Iowa. Filed July 23, 1920. Serial No. 398,601. 3 Claims. (Cl. 192—66.)



1. In a device of the class described, a casing member, a shaft mounted therein, a disc fixed on said shaft, a second casing member secured to said first casing member, a short shaft mounted in the second casing member and journalled also in the first casing member, a gear between the casing members mounted on said second shaft, a plug mounted in the second casing member having an opening in its inner end receiving said first shaft, a disc loosely mounted on said first shaft and rotatably mounted on said plug, said plug having a screw-threaded connection with the second casing member, an adjusting arm on said plug, said second disc having teeth meshing with said gear.

1,415,691. WASHING MACHINE. SYLVESTER PATT, Willoughby, Ohio. Filed May 13, 1921. Serial No. 469,241. 3 Claims. (Cl. 68—20.)

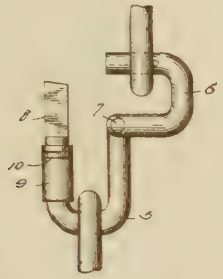


1. In a washing machine of the character described a casing, a pair of washboards arranged in said casing and adapted to co-act for washing clothes, resilient means for resiliently supporting one of said washboards in a given position, a plurality of rods for guiding said last mentioned washboard in a reciprocatory movement with and against said resilient means, means for guiding said rods, means for supplying a washing fluid to the clothes between said washboards, and means for moving said upper washboard downwardly toward the lower washboard, said means also moving the upper washboard longitudinally as it is lowered.

1,415,692. DETACHABLE LINK. JOSEPH PAVONI, Sioux City, Iowa. Filed Aug. 9, 1921. Serial No. 490,909. 1 Claim. (Cl. 24—241.)

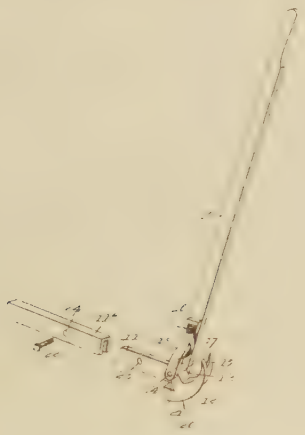
A detachable coupling comprising a pair of U-shaped sections having their adjacent ends pivotally connected together and their free ends cut away and adapted to be arranged in overlapping relation, a locking sleeve slidable

and rotatable on one of the sections and adapted to embrace the cut away ends, the locking sleeve being pro-



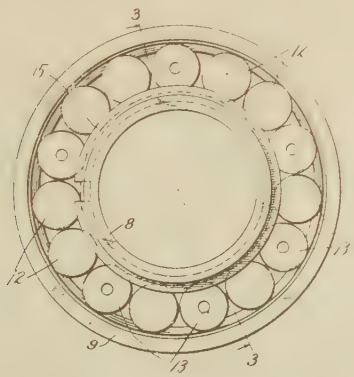
vided with a bayonet slot, and a pin carried by the other section adapted to be engaged in the bayonet slot whereby to hold the sleeve in operative position.

1,415,693. BOARD-PULLING TOOL. JOHN M. PEDERSON, Nome, N. Dak. Filed May 23, 1921. Serial No. 471,540. 6 Claims. (Cl. 254—131.)



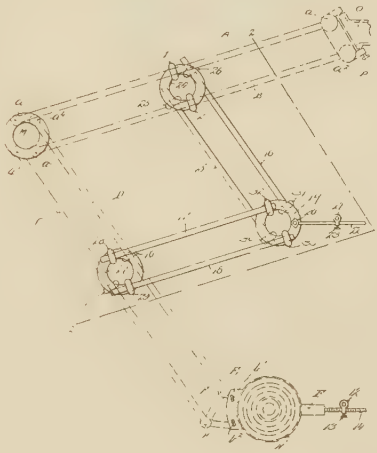
1. A tool for the purpose indicated having a lever forming at one end a handle and provided at the other end with a transversely extending bearing foot, and a claw head pivotally mounted for swinging movement upon the lever adjacent to the angle between the body portion thereof and said foot.

1,415,694. ROLLER BEARING. EDWIN A. PERKINS, Jamaica, N. Y. Filed Aug. 12, 1918. Serial No. 249,402. 9 Claims. (Cl. 64—61.)



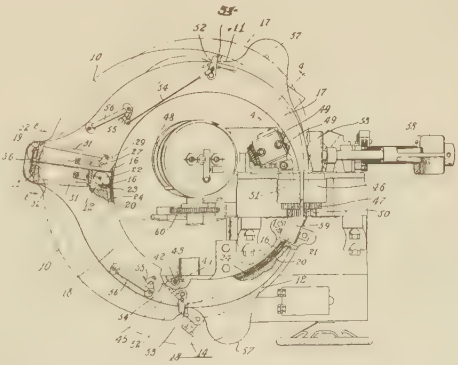
2. In a roller bearing an inner ring having substantially cylindrical external bearing surfaces and an external flange having bearing surfaces, an outer ring having substantially cylindrical internal bearing surfaces and an internal flange having bearing surfaces, roller members having substantially cylindrical bearing surfaces and recesses having bearing surfaces adapted to bear on either side of said flanges together with means for holding said rollers in proper circumferential position consisting of roller lubricating members adapted to bear at one end on said flanges and at the other end on a split retaining ring secured in position at each end of the bearing.

1,415,695. PANTOGRAPHIC APPARATUS FOR ATTACHING TO UNIVERSAL DRAFTING MACHINES. WAYNE A. PERKINS, Hawthorne, Nev. Filed Apr. 30, 1920. Serial No. 377,871. 3 Claims. (Cl. 33—25.)



1. An attachment for a drafting machine having pivotally connected arms, comprising two arms pivotally connected to each other and having their free ends adapted to be pivotally secured to the arms of said machine, and means for securing a marking instrument to the pivotal connection between said arms, substantially as described.

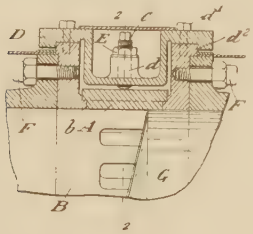
1,415,696. GROMMET-WINDING MACHINE. ROBERT C. PIERCE, Tallmadge, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York. Filed Dec. 7, 1921. Serial No. 520,522. 16 Claims. (Cl. 117—5.)



1. In a machine of the character specified, the combination of a form for giving wire an annular shape, means

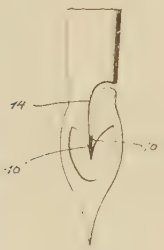
for feeding wire into said form, and mechanism timed with the wire-feeding means for automatically varying the effective diameter of said form.

1,415,697. CYLINDERS OF UNIFLOW STEAM ENGINES. HENRY PILLING, Chorlton-cum-Hardy, England. Filed July 8, 1918. Serial No. 243,905. 4 Claims. (Cl. 121—125.)



1. In a steam engine of the uniflow type, a working cylinder having a central exhaust belt having an aperture therein, a seating on the walls of said aperture, a removable closure for said aperture adapted to rest on said seating, a cover external to said closure making a steam tight joint with the cylinder, and means associated with the cover for securing the removable closure on the seating.

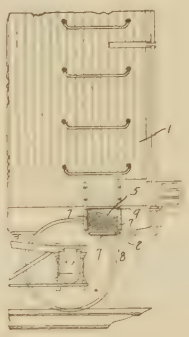
1,415,698. NEEDLE. GUIDO PITONI, Rochester, N. Y. Filed May 29, 1920. Serial No. 385,252. 1 Claim. (Cl. 112—224.)



A device of the class described comprising a pointed shank provided with an eye and having a curved tapering slot formed therein and communicating with said eye, a pair of converging pointed members extending into said eye upon opposite sides of said slot, and a plurality of spaced opposed spring fingers extending from the inner converging walls of said pointed members.

1,415,699. CAR STEP. CHARLES E. PORTER, Neville Township, Allegheny County, Pa. Filed Oct. 22, 1921. Serial No. 509,456. 3 Claims. (Cl. 228—49.)

1. As a new article of manufacture, a step of the character described, including a platform, upstanding triangular guard plates at the sides of the platform, an inclined guard plate connected to the upper edges of the triangular

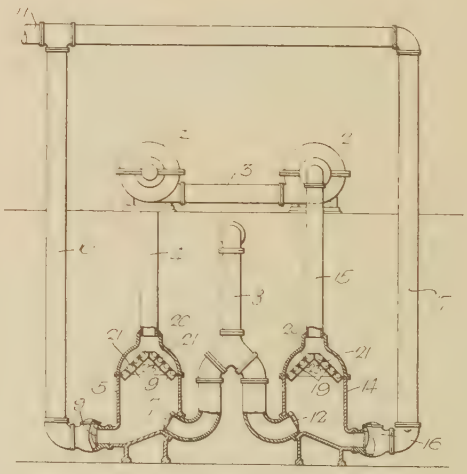


members and the rear edge of the platform, and means at the forward edges of the triangular guard plates and platform engageable with a support.

1,415,700. PROCESS FOR THE MANUFACTURE OF 1-ALLYL-3.7-DIMETHYLXANTHINE. ERNST PREISWERK, Basel, Switzerland, assignor to The Hoffmann-La Roche Chemical Works, New York, N. Y., a Corporation of New York. Filed June 9, 1921. Serial No. 476,308. 2 Claims. (Cl. 260—34.)

1. The process for the manufacture of 1-allyl-3.7-dimethylxanthine which consists in allowing allyl bromide to act upon an alkali compound of 3.7-dimethylxanthine at temperatures below 100° C. without application of pressure.

1,415,701. PUMPING SYSTEM. ALBERT PRIESTMAN, Philadelphia, Pa. Filed Feb. 17, 1922. Serial No. 537,271. 4 Claims. (Cl. 103—79.)



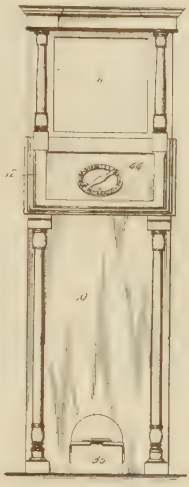
3. The combination in a pumping system of a reversible pumping apparatus; two screen casings connected between said apparatus and a source of supply of solid-carrying liquid; discharge conduits connected to said screen casings; and screens in said casings formed to provide relatively larger openings for the passage of material away from the pumping apparatus than are provided for the passage of liquid to the said apparatus.

1,415,702. SHAFT ATTACHMENT. George Gerard Purcell, Brooklyn, N. Y. Filed Mar. 1, 1921. Serial No. 448,931. 5 Claims. (Cl. 193—32.)

1. A shaft attachment including in combination with a shaft, of a plurality of partitions secured within said shaft and normally extending across and within the same, and means for simultaneously moving said partitions.

1,415,703. DIRECTORY CABINET. Stephen A. D. Puter, Berkeley, Calif., and Alois F. Eltscher, New York, N. Y., assignors, by direct and mesne assignments, to The Classified Automatic Directory Company, a Corporation of Delaware. Filed Apr. 3, 1919. Serial No. 287,148. 8 Claims. (Cl. 40—28.)

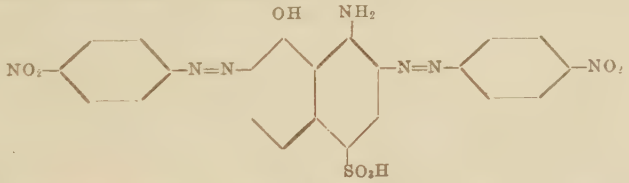
1. In a directory cabinet, a plurality of cards, a rotatable selecting means, means for communicating motion from said rotatable means to the cards to select and bring any one of said cards opposite a predetermined point, a foot operative means for detaching and displaying the selected card, a locking means operable upon operation of said foot operative means to lock the selecting means against movement, said locking means being



released when the foot operative means is released, and a second locking means operable to retain the selecting means locked until the first-locking foot operative means are fully released and returned to normal position.

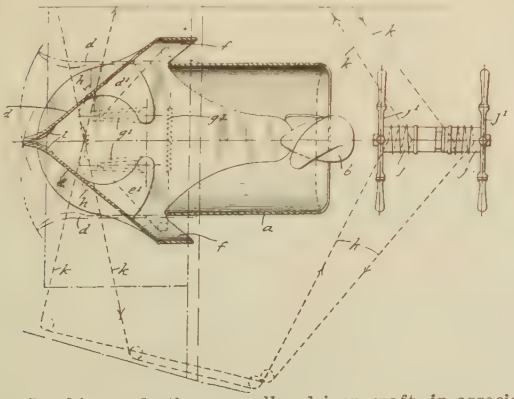
1,415,704. PRODUCTION OF DISAZO DYE. Walter M. Ralph and Lawrence H. Flett, Buffalo, N. Y., assignors to National Aniline & Chemical Company, New York, N. Y., a Corporation of New York. Filed Jan. 3, 1920. Serial No. 349,277. 6 Claims. (Cl. 260—84.)

6. The method of producing a disazo dyestuff which comprises subjecting a dyestuff of the following composition



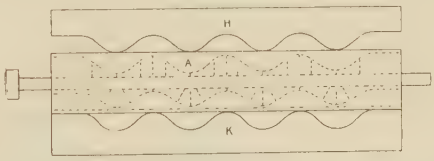
to reduction in alkaline solution by means of sodium disulfide to reduce the two nitro groups to amino groups and isolating the resulting dyestuff by the addition of sodium bisulfite and dilute hydrochloric acid.

1,415,705. APPARATUS FOR MANEUVERING SHIPS AND AIRCRAFT. Edmund Scott Gustave Rees, Wolverhampton, England. Filed Nov. 2, 1920. Serial No. 421,363. 7 Claims. (Cl. 114—145.)



1. In ships and other propeller driven craft, in association with the propeller an augmenter tube of circular section at its forward end and of rectangular section and greater area at its rear end.

1,415,706. METHODS AND MEANS FOR BLOCKING OR CORRUGATING HEADERS FOR STEAM BOILERS. Rees Rees, Kapunda, South Australia, Australia. Filed Sept. 2, 1921. Serial No. 498,062. 3 Claims. (Cl. 153—73.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

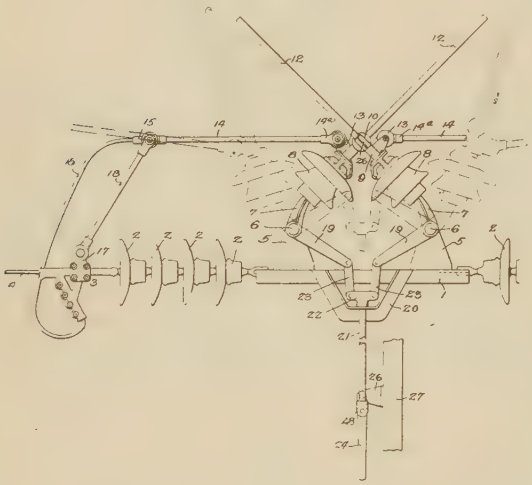


2. Means for blocking or corrugating a header for a steam boiler, comprising top and bottom dies, and a core formed of a number of suitably shaped blocks, and an intermediate frictionally held draw-bar, the blocks being arranged on opposite sides of the draw-bar in two longitudinal rows on each side, the blocks of the rows on one side being separate and independent of and spaced from the blocks of the rows on the other side, the abutting faces of the blocks of the rows being inclined, whereby when the tube has been pressed to shape the draw-bar can be readily removed and the blocks shaken from the tube.

1,415,707. ROLLER-BAR TIP FOR SPINNING MACHINES. LESTER B. REID, Gaffney, S. C. Filed Aug. 16, 1921. Serial No. 492,649. 6 Claims. (Cl. 19—134.)

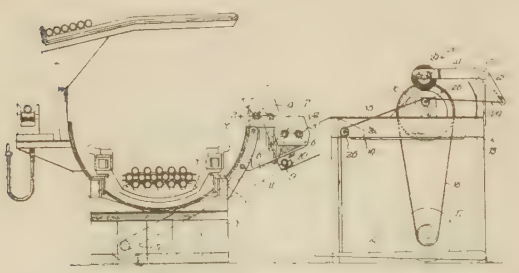
1. A roller bar tip for spinning machines having spaced heads forming guides for the terminals of the bearing rollers, the space between the heads being open between the ends of the rollers and one of the heads having stop shoulders for limiting the endwise movements of the rollers.

1,415,708. HIGH-VOLTAGE AIR-BREAK SWITCH. ROBERT RENKE, Philadelphia, Pa., assignor to Lewis and Roth Corporation, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 25, 1919. Serial No. 306,629. 11 Claims. (Cl. 200—48.)



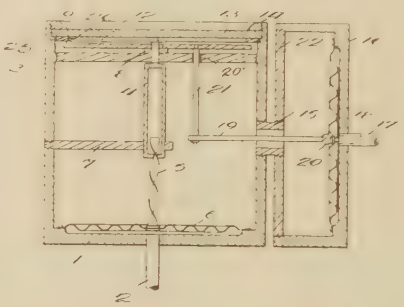
4. The combination in a high voltage switch of two movably supported cooperative contacts; horns respectively associated with said contacts and positioned to maintain an arc gap of constant length as the contacts are separated until the extremities of the horns have been brought immediately adjacent each other and thereafter move said extremities apart; with means for operating the switch.

1,415,709. APPARATUS FOR UNWRAPPING INNER TUBES. LEWIS C. RIBLETT, Akron, Ohio, assignor to The Firestone Tire and Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed May 8, 1919. Serial No. 295,772. 2 Claims. (Cl. 242—7.)



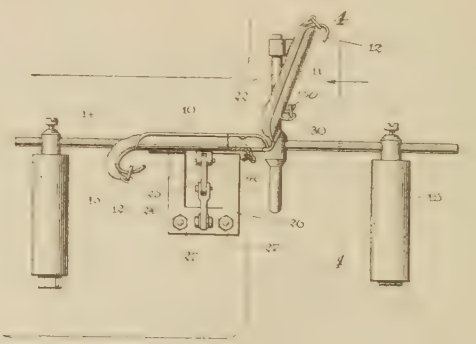
1. Apparatus for unwinding and then coiling the protective winding of inner tubes, comprising means for rotatably supporting at its ends the mandrel of an inner tube with its protective wrapping thereon, a positively driven unwinding roll mounted in substantially parallelism with the position of the mandrel, and means for forming the wrapping into a coil as it leaves the unwinding roll, said means including a positively driven roll for frictional engagement by the wrapping strip, and a rotatable spool upon which the wrapping is to be coiled said spool being in frictional driving relation with the driven roll and mounted for movement into and out of operative relation with the said roll.

1,415,710. PRESSURE GAUGE. WILLY RICHTER, Olmsted, Ill. Filed Feb. 14, 1919. Serial No. 277,015. 9 Claims. (Cl. 73—54.)



1. A pressure gauge for liquid containing tanks including a casing having a plurality of pressure inlet means, a dial having different sets of graduations in said casing, independent indicating means cooperating with the dial, motion transmitting means operable by the pressure introduced by said inlet means, one of said indicating means cooperating with graduations on the dial indicating the atmospherical pressure under which the means of pressure is placed, and the other indicating means cooperating with graduations corresponding and readable in conjunction with the first graduations for indicating the quantity of liquid in the tank.

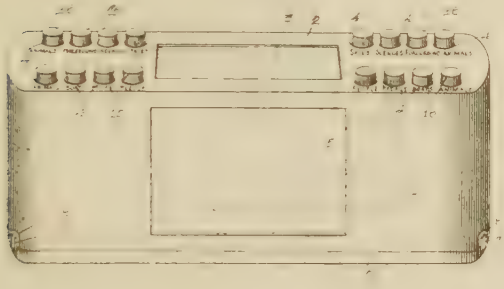
1,415,711. SEAT. HIRAM S. ROBERTS, Albany, Ala. Filed Apr. 27, 1921. Serial No. 464,841. 13 Claims. (Cl. 155—51.)



1. A vehicle seat of the kind described, comprising a pair of spaced cylinders secured to the vehicle, piston rods slidable through the lower heads of said cylinders, pistons secured to the upper ends of said rods, springs surrounding said piston rods in said cylinders, nuts screwed on the outer ends of said piston rods, said pistons having upper extensions provided with transverse apertures, a rod passing through said apertures, a second rod slidably mounted on said first mentioned rod and having a lower right-angled extension adapted to abut a relatively stationary part of the vehicle, a seat portion formed of sheet metal and having a pair of sleeves formed

on its outer edge surrounding said first mentioned rod, a U-shaped frame of sheet metal pivoted on said first mentioned rod between said sleeves, a knuckle-jointed brace rod having its upper member pivoted to the under side of said seat near the outer edge thereof and having its lower member pivoted to the lower part of said frame, bolts slidably mounted in the lower part of said frame and having outer heads adapted to slidably engage a relatively stationary part of the vehicle, springs surrounding said bolts between the outer heads thereof and said frame, nuts on the inner ends of said bolts, a back pivoted to the upper portion of said second rod, said seat having an upwardly and rearwardly projecting lip adapted to engage the lower edge of said back to hold the latter in operative position.

1,415,712. PICTURE CONSTRUCTOR. PIERRE A. RONTEY and ROBERT TAYLOR, Coscob, Conn. Filed Oct. 20, 1920. Serial No. 418,257. 9 Claims. (Cl. 46—40.)



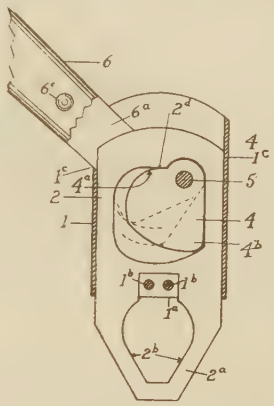
1. A picture constructor, comprising a series of movable aligned strips, each strip independently movable in both directions and having transparent portions and opaque illustrations thereon adapted to register with the illustrations of the other strips to form a picture.

1,415,713. LAUNDRY TAG. MORRIS G. ROSENTHAL, Cincinnati, Ohio, assignor of one-half to Fred E. Klein, Cincinnati, Ohio. Filed Dec. 31, 1921. Serial No. 526,171. 3 Claims. (Cl. 40—2.)

3. In a laundry tag comprising a strip of stiff material provided with a means of suspension, and a strip of soft, flexible material to which the stiff strip is permanently attached, the soft strip adapted to be detachably secured by sewing to the goods to be identified.

1,415,714. WRENCH. JAMES WEBB SAFFOLD, Cleveland, Ohio. Filed May 10, 1921. Serial No. 468,206. 10 Claims. (Cl. 81—126.)

1. In a wrench, a guide head, a slide having a nut engaging portion longitudinally movable in said head and provided with a median cam receiving bearing portion, a cam pivoted on said head and operable against said

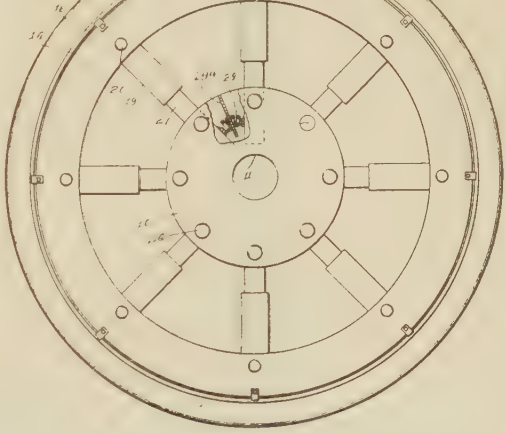


cam bearing portion of said slide, and a handle for operating said cam.

1,415,715. PROCESS FOR MAKING ICE-CREAM MIX. ANTHONY R. SANNA, Chevy Chase, Md., assignor to George P. Sacks, Bradley Hills, Md. Filed Nov. 15, 1921. Serial No. 515,338. 5 Claims. (Cl. 99—11.)

1. The process of making ice cream mix, consisting in treating the milk to separate the casein particles and enlarge the same to substantially a state of initial agglomeration, and thereafter subjecting the treated milk to a homogenizing action to arrest further agglomeration.

1,415,716. SPRING WHEEL. PAUL M. SCHNECKENBURGER, Wolcott, Ind. Filed Aug. 23, 1920. Serial No. 405,267. 3 Claims. (Cl. 152—47.)

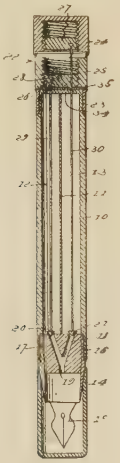


1. A spring wheel comprising a hub portion, a felly carrying a rim, telescopic spoke members enclosing springs and pivotally connected with the felly and with the hub member, said pivot point being spaced from the ends of the spokes, springs engaging the outer ends of the spokes whereby to oppose circumferential movement, partition plates in the hub member between the successive spokes, and coil springs engaging the inner ends of the spokes and said partition plates for assisting in opposing circumferential movement of the spokes.

1,415,717. PORTABLE FIRE EXTINGUISHER. GUSTAV SCHWORETZKY, Eplingen-on-the-Neckar, Germany. Filed Dec. 20, 1921. Serial No. 523,703. 3 Claims. (Cl. 169—31.)

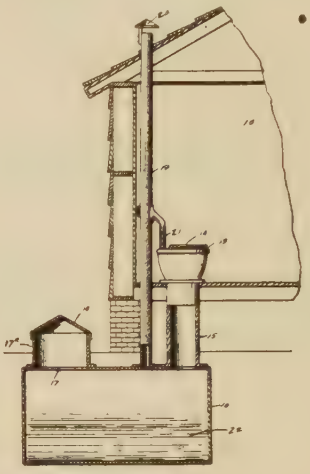
1. In a portable fire extinguisher, a shell containing the extinguisher liquid, end plates secured to said shell, one of said end plates being formed with a charging opening, a hollow stay bolt inserted through said charging opening for connecting said end plates, means on said stay bolt for sealing said charging opening, said bolt being adapted to confine the pressure medium until the device is operated, and a discharge pipe for the extinguishing liquid.

1,415,718. FOUNTAIN PEN. FLORENTINO E. SHARAH Y CANTOS, Tacloban, P. I. Filed Oct. 3, 1921. Serial No. 505,073. 5 Claims. (Cl. 120—42.)



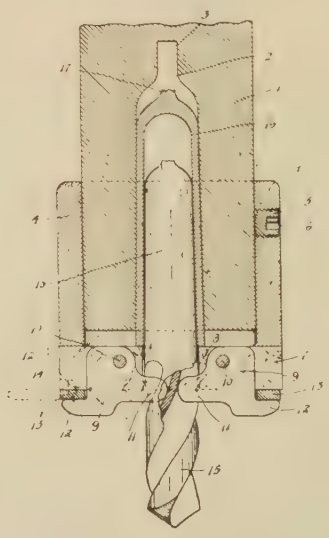
5. A fountain pen having a compartmental barrel or stock fitted at one end with a removable pen point carrying a tip having ink conveying canals respectively in communication with the compartments of the barrel and fitted at the other end with a head having independently revoluble internally threaded sleeves, valves for respectively closing said canals, followers mounted in and having threaded connection respectively with said sleeves and having connection respectively with the stems of said valves, and means for independently locking said sleeves against rotation, said barrel being provided at its upper end with a closure disk through which the stems of the valve extend, and an absorbent packing disk disposed upon said closure disk and held in place by said head.

1,415,719. SANITARY CLOSET. BENJAMIN B. SHOLLENBERGER, Marshalltown, Iowa. Filed July 5, 1918. Serial No. 243,358. 1 Claim. (Cl. 4—21.)



In a sanitary closet, the combination with a room, of a toilet bowl therein, having a seat and hinged cover, a tank below said bowl, a relatively large tubular conducting member between said bowl and said tank, a primary vent pipe leading from the upper portion of said tank upwardly through said room, immediately back of the bowl and adjacent to it, and a comparatively small by-pass or secondary vent pipe connecting the upper rear interior of said bowl at the point nearest said primary vent pipe, with said primary vent pipe at an angle of substantially forty-five degrees.

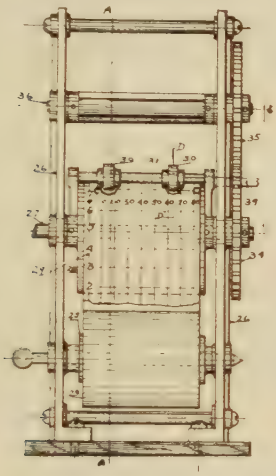
1,415,720. DRILL CHUCK. FRANK C. SHORE, Minneapolis, Minn., assignor of one-half to George B. Arones, Minneapolis, Minn. Filed Oct. 13, 1920. Serial No. 416,611. 3 Claims. (Cl. 279—35.)



1. A drill chuck having in combination a cylindrical member adapted to be adjustably mounted on the arbor

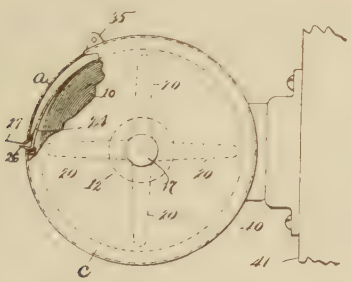
of a drill press, oppositely disposed pivoted lugs carried by the lower end of said member and adapted to swing in a vertical plane, projections on said lugs for engaging in opposite grooves of the drill and pivoted swinging wing members carried by the lower end of said member adapted to hold said lugs in engaging position.

1,415,721. STRIP-FEED DEVICE. SAMUEL R. SHOUP, Weehawken, N. J. Filed Apr. 10, 1918. Serial No. 227,759. 8 Claims. (Cl. 273.)



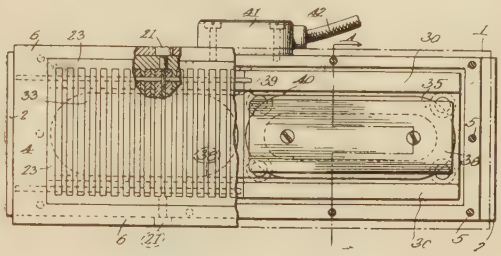
1. In a device of the type described a rotatable cylinder, a strip having punched holes therein adapted to pass thereover, a grip wheel adapted to register the punched holes in said strip together with a segmental grip wheel adapted to grip and advance the strip intermittently.

1,415,722. CONTAINER FOR FIBROUS MATERIAL. MORTIMER SILVERMAN, Boston, Mass. Filed Feb. 14, 1919. Serial No. 276,964. 4 Claims. (Cl. 211—33.)



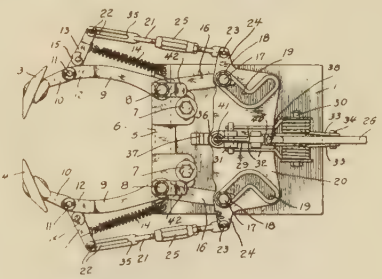
1. A device of the character described, comprising a casing normally open at one side for the insertion therein of a roll of fibrous material and provided with a slot in its circumference through which the outer layer is extended, a cover to close said open side, a rotatable device within said casing upon which said roll is mounted to turn therewith, a guide for the fibrous material located in said casing and co-operating with said slot to guide the outer layer of the paper thereto, a knife attached to said guide and extended from within the casing through said slot, and means co-operating with said rotatable device for rotating said roll from outside of said casing.

1,415,723. BIPOLAR MAGNETIC CHUCK. FRANK L. SIMMONS, Woonsocket, R. I., assignor to The Taft-Peirce Manufacturing Company, Woonsocket, R. I., a Corporation of Rhode Island. Filed Sept. 11, 1917. Serial No. 190,698. 17 Claims. (Cl. 175—367.)



15. A magnetic chuck comprising a shell, magnetizing means supported on the bottom of said shell and insulated therefrom, a frame superposed on said shell, and pole pieces carried by and insulated from said frame, and adapted to be energized by said magnetizing means.

1,415,724. TIRE-BUILDING APPARATUS. CHERI M. SLOMAN, Detroit, Mich. Filed June 7, 1919. Serial No. 302,541. 16 Claims. (Cl. 154—10.)



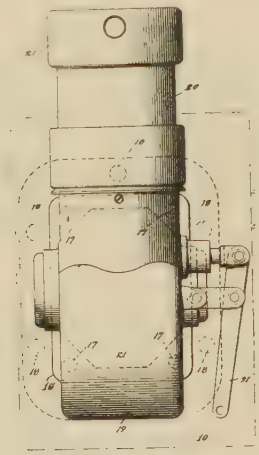
7. In a tire building machine, in combination, stitching devices, a reciprocable carriage for said stitching devices, pivotally connected levers for sustaining each of said stitching devices and supported by said carriage, a rectilinearly movable member for differentially moving said levers, and manual means for shifting said member relative to said carriage.

1,415,725. TRUCK TIRE PUMP. GREGORY J. SPOHRER, East Orange, N. J. Filed June 21, 1920. Serial No. 390,335. 17 Claims. (Cl. 230—27.)

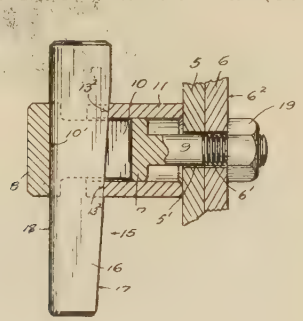
1. In a device of the class described, the combination with a transmission casing provided with a standard opening and with a mounting pad outlining the opening and disposed in a vertical plane, of an air compressor including a mounting member fashioned to fit on said pad and means for securing the compressor to the transmission casing so as to be supported thereby offset laterally outward in relation thereto, the center of mass of said compressor being substantially at the center of figure thereof and positioned within the laterally projected outlines of the pad and relatively close thereto thereby to minimize any tendency of the compressor to turn relative to the mounting pad under the influence of the torque imposed on the compressor by the cantilever effect of the mounting.

11. In a device of the class described, the combination with a transmission casing provided with an opening in a vertical wall thereof and containing a power member,

of an air compressor having a chamber exposed to the opening in the transmission casing thereby to receive lubricant from the casing, said compressor including a piston cylinder which is liable to become highly heated and connected to the part forming the lubricant containing chamber through means which tend to minimize resistance to heat conduction a piston in said piston cylinder and a driving connection between the power member and the piston constituting means for causing the lubricant to circulate through the chamber and transmission casing.



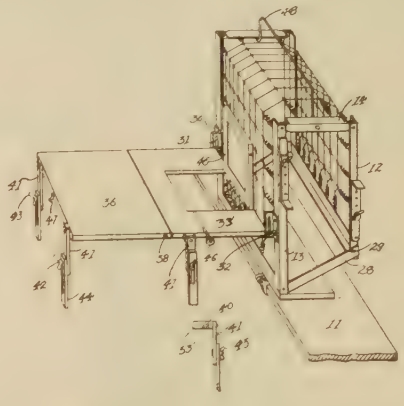
1,415,726. BOLTING-UP DEVICE, JAMES STANMORE and DAVID KENNEDY, Seattle, Wash. Filed July 30, 1919. Serial No. 314,217. 4 Claims. (Cl. 85—1.)



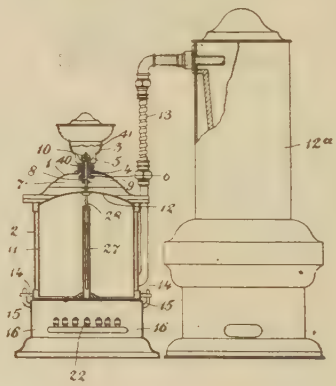
1. A bolting-up device comprising a post member having a body element with a slot extending diametrically therethrough, a screw threaded stud extending axially from said body element, a nut engaging the screw thread of said stud, a sleeve provided at one end with notches having inclined inner faces, and a wedge adapted to be driven through the body slot and the notches of said sleeve to force the latter toward said nut.

1,415,727. FOLDING AUTOMOBILE BED. CLARENCE C. STARR, San Francisco, Calif. Filed Jan. 24, 1921. Serial No. 439,488. 1 Claim. (Cl. 5—72.)

In a combination camping equipment, a folding bed having means at one end to clamp the same to the running board of an automobile and permitting it to assume an inactive folded position and a position set up transversely of the automobile, and a folding table carried under the bed adapted to be set up when the bed is in inactive folded position and folded under the bed when the bed is set up, said table having a hinged panel adapted to assume a vertical position against the bed when the bed is folded and leaving an opening in the table providing a seat and a space for accommodating the legs of a person occupying the seat and with the vertically presented panel serving as a mirror or the like support substantially as and for the purpose described.

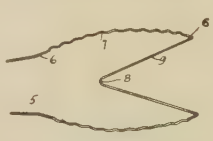


1,415,728. WATER HEATER. VERNON HEYWOOD STOTT and LEE SCHOFIELD, Oldham, England. Filed Aug. 22, 1921. Serial No. 494,331. 15 Claims. (Cl. 53—3.)



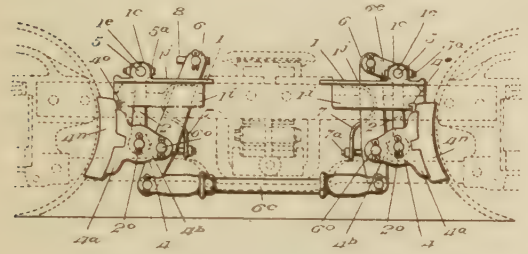
1. A water heater having means for ejecting boiling water therefrom comprising a boiler, a discharge pipe for boiling water, an air and steam escape passage normally open, a valve for closing said passage and means for actuating said valve to close said passage to cause steam pressure generated within said boiler to eject the boiling water therefrom.

1,415,729. HAIR-PUFF DEVICE. IDA WHALEY STRAHAN, Montclair, N. J. Filed June 3, 1921. Serial No. 474,609. 1 Claim. (Cl. 132—54.)



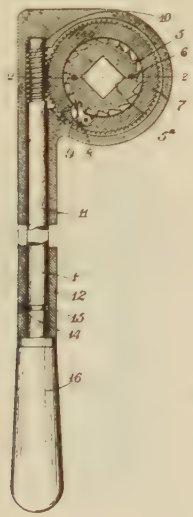
A hair puff device including a body portion presenting a pair of legs having their outer ends extending towards each other, said legs being bowed outwardly and upwardly throughout a part of their length, said body portion being bent at a point substantially intermediate its extremities, and presenting substantially straight side portions, the outer ends of which form continuations of the inner ends of said legs.

1,415,730. CAR BRAKE. JOHN TAYLOR, Albany, N. Y., assignor to Taylor Electric Truck Co., Troy, N. Y., a Corporation of New York. Filed Nov. 15, 1920. Serial No. 424,205. 25 Claims. (Cl. 188—205.)



1. A beamless brake mechanism comprising a slotted gusset bracket attached to the truck frame to the inside of the truck wheel and in line with the periphery thereof; a bifurcated brake hanger swingably suspended from the said gusset bracket in line with the tread of the wheel; a brake head pivoted on the lower end of said hanger in line with the tread of the wheel; a brake lever pivotally connected with said head in line with the tread of the wheel and projecting through the slot in the bracket and operating between the bifurcations of the hanger; and a brake release spring connected with the bracket in line with the tread of the wheel and adjustably connected with the brake head.

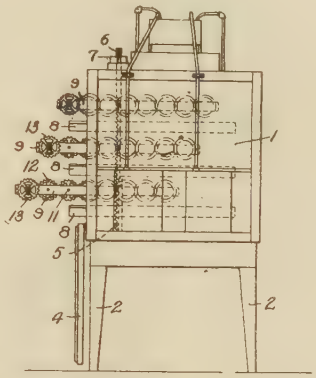
1,415,731. RATCHET WRENCH. MERRILL H. TERRY, Columbus, Ohio. Filed Dec. 31, 1921. Serial No. 526,247. 3 Claims. (Cl. 81—60.)



1. A wrench including, in combination, a ratchet member, a worm-gear ring surrounding the ratchet member and provided with a pawl to engage the ratchet member and a worm engaging the worm-gear ring.

1,415,732. INCUBATOR. ALPHONSE CLÉOPHAS THÉRIAULT, Montreal, Quebec, Canada. Filed Aug. 21, 1920. Serial No. 405,145. 3 Claims. (Cl. 119—44.)

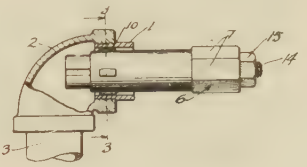
1. In an incubator, the combination of a casing; a plurality of superposed frames slidably mounted therein; a plurality of egg carriers disposed in parallel, longitudinal relation in each frame with their opposite ends journaled in the adjacent side members of the frame; a gear fixed to one journal of each of the carriers in each frame at one side of the casing, all of the gears of the carriers in each frame intermeshing; a gear fixed to the gear-carrying journal of one carrier in each frame, all of the last-named gears being disposed in vertical alinement; a vertical rack movably mounted in the casing and meshing with all of the last-named gears so as to rotate them in unison and thereby rotate all of the carriers in all of the frames simultaneously; and means for operating said rack at will to variable extents and in either direction.



1,415,733. PROCESS OF MAKING AND USING METAL SCAVENGING ALLOY. HERMANN G. C. THOFEHRN, deceased, late of Roselle, N. J., by Donald H. McLean, administrator, Elizabeth, N. J., assignor to Light Metals Company, Elizabeth, N. J., a Corporation of New Jersey. Filed Feb. 2, 1920. Serial No. 355,667. 4 Claims. (Cl. 75—1.)

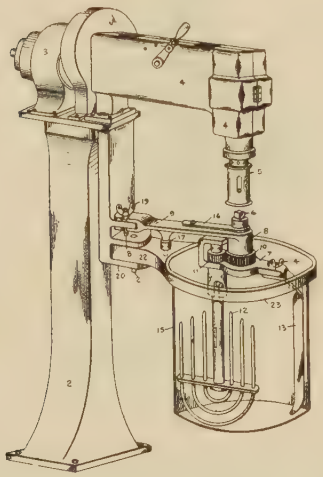
1. The herein described process of obtaining a uranium aluminium alloy, consisting in melting together ferro-uranium and aluminium, separating the molten material from the slag resulting from such process and allowing the molten material to cool.

1,415,734. WRENCH. GEORGE W. THOMAS, Los Angeles, and HARVEY L. SCOTT, Long Beach, Calif. Filed Jan. 26, 1921. Serial No. 440,218. 1 Claim. (Cl. 81—72.)



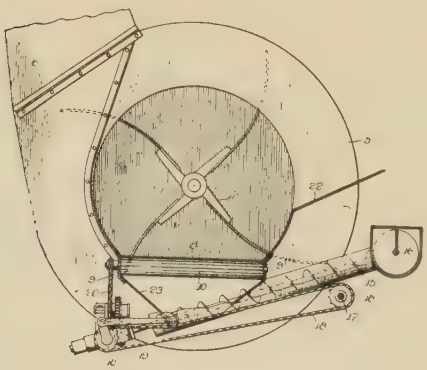
A wrench comprising a hollow member having circumferentially spaced slots formed therein, a rod within and movable longitudinally of the member, said rod having a threaded end and an enlarged end, said enlarged end being formed with circumferentially spaced slots tapering in depth, teeth having blades disposed within said slots and shanks slidably fitted in said lots, and a nut engageable with the threaded end of the rod for moving the latter longitudinally for the purpose described.

1,415,735. FOOD MACHINE. JOSEPHINE TRUST and HENRY TRUST, Park Ridge, N. J., assignors, by mesne assignments, to Meteor Mixing Machine Co., Inc., a Corporation of New York. Filed Sept. 18, 1919. Serial No. 324,596. 1 Claim. (Cl. 259—102.)



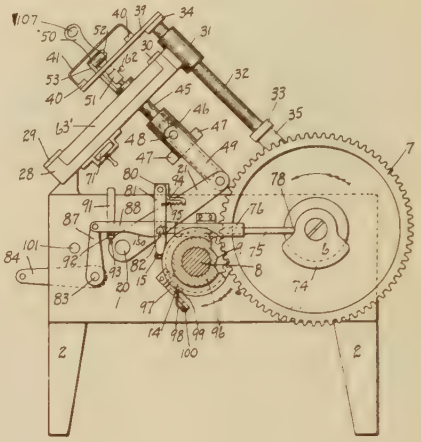
In a machine of the class described having a tool chuck, means for mounting a container to swing laterally of the tool chuck thereof, and in combination therewith means for mounting the tool supporting mechanism to swing laterally therewith.

1,415,736. PNEUMATIC STRAW STACKER. WILLIAM O. VAN DEVENTER, Indianapolis, Ind., assignor to The Indiana Manufacturing Company, Indianapolis, Ind., a Corporation of West Virginia. Filed Mar. 12, 1921. Serial No. 451,670. 6 Claims. (Cl. 130—17.)



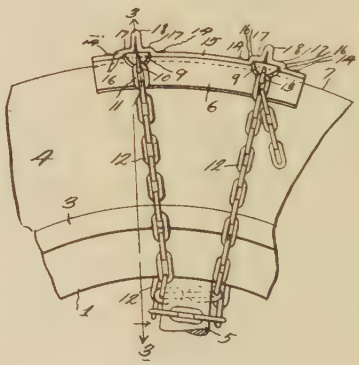
1. In a wind stacker, the combination of a fan casing, a fan therein, a hopper communicating with said casing for conveying material thereinto, a grain trap between said casing and hopper comprising a longitudinally corrugated roll, and means for rotating said roll to convey material towards said fan and for trapping and conveying grain separated from such material.

1,415,737. SHOE-BUTTONING MACHINE. LOUIS J. VAN GUELPEN, Cincinnati, Ohio. Filed Apr. 3, 1918. Serial No. 226,544. 14 Claims. (Cl. 12—1.)



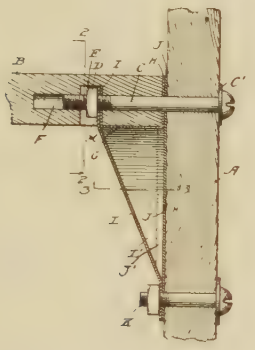
1. In a shoe buttoning machine, initial means for grasping and holding the buttons on the button fly and means for pushing the button hole fly over the buttons to connect with them, said means also releasing the buttons and the buttoned flies from the machine.

1,415,738. ANTISKID ATTACHMENT. FREDERICK T. VERGIN, South Bend, Ind. Filed Feb. 13, 1922. Serial No. 536,294. 4 Claims. (Cl. 152—14.)



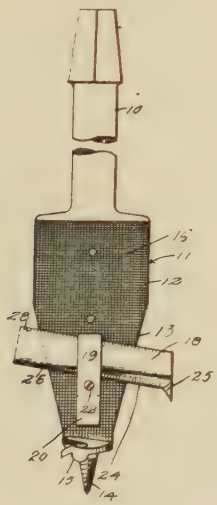
4. An antiskid device for vehicle tires, said device comprising an elongated tire engaging plate, transversely disposed members secured to said plate, means carried by the ends of said transversely disposed members for the reception of securing means, a reinforcing plate secured to the elongated tire engaging plate and arching the transversely disposed members, said reinforcing plate being bent upon itself centrally of the arched portions thereof and forming outwardly extending ground engaging members.

1,415,739. STEPLADDER. CLAUDE M. WAGGONER, Riverside, Calif., assignor of one-half to Isaac B. Potter, Riverside, Calif. Filed May 16, 1921. Serial No. 469,855. 6 Claims. (Cl. 228—58.)



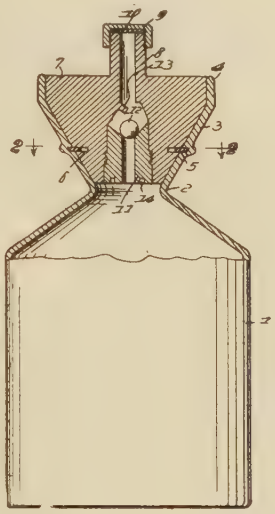
4. The combination with a wood stile and a step abutting the same, of a plane metal brace sheet extending obliquely from the step to the stile, secured to both, and having a flange fitting the angle between the two and perpendicular to the plane of said sheet.

1,415,740. EXPANSION COUNTERBORING BIT FOR WOOD. WILLIE F. WALL, San Francisco, Calif. Filed Oct. 29, 1920. Serial No. 420,456. 7 Claims. (Cl. 145—127.)



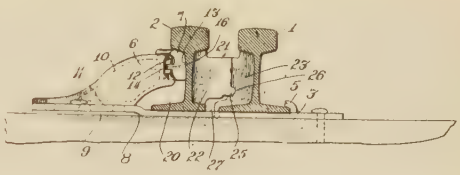
5. A combined expansion and counterboring bit comprising a head having a flat serrated face in alinement with the axis of the bit and having an upper semi-cylindrical portion and a lower semi-conical portion located on the same side of said face, a lead screw and a cutting lip or flange carried by the lower end of said conical portion, a cutter blade provided with serrations, and a cutting blade clamp provided with serrations, and means adapted to secure said clamp in different positions to the flat side of the head.

1,415,741. NONREFILLABLE BOTTLE. WILLIAM P. WALSH, Chicago, Ill. Filed Sept. 8, 1921. Serial No. 499,220. 4 Claims. (Cl. 215—14.)



1. In a device for the purpose indicated, the combination with a receptacle provided with a flaring mouth, of a stopper of a shape corresponding with that of the mouth, and means for irremovably locking the stopper in the mouth, the stopper having a valve controlled discharge opening formed therethrough.

1,415,742. GUARD-RAIL CLAMP. HAROLD G. WARR, Park Ridge, Ill., assignor to The P & M Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 4, 1920. Serial No. 408,234. 13 Claims. (Cl. 238—20.)

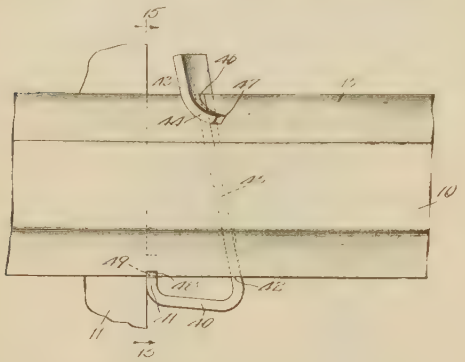


1. A guard rail clamp of the type described comprising in combination a base, a guard rail brace comprising a member rigidly secured to said base and a block adapted to engage a guard rail, said member and block having cooperating engaging faces inclined to the rail engaging face of said block, said block engaging only the upper portion of a guard rail and leaving a space below said block and member to permit the free upward movement of the guard rail.

1,415,743. RAIL ANCHOR. HAROLD G. WARR, Chicago, Ill., assignor to The P & M Company, Chicago, Ill., a Corporation of Illinois. Filed May 8, 1919, Serial No. 295,555. Renewed Mar. 2, 1921. Serial No. 449,077. 38 Claims. (Cl. 238—330.)

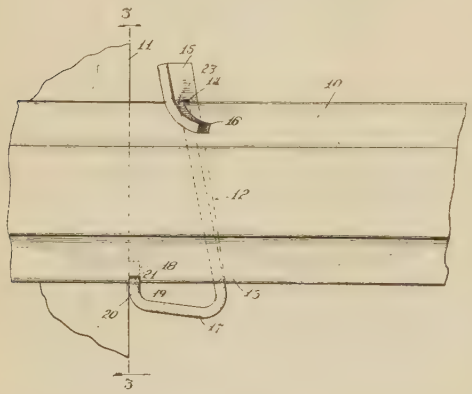
5. A rail anchor comprising a spring metal member provided at one end with a single jaw having a lip bent obliquely to the body portion of said member to engage the upper surface of the rail base and at the other end with a return bent portion terminating in a jaw to engage

the other side of the rail base, said jaws being positioned so that they are forced apart when the anchor is applied



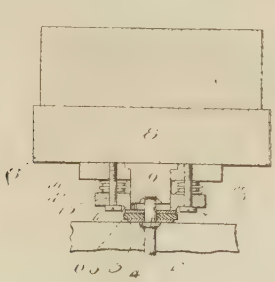
to and in operative position on the rail to create a strain which gives the device a resilient hold on the rail.

1,415,744. RAIL ANCHOR. HAROLD G. WARR, Park Ridge, Ill., assignor to The P & M Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 25, 1921. Serial No. 495,387. 11 Claims. (Cl. 238—330.)



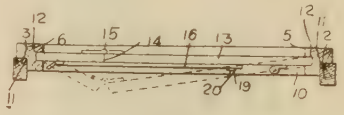
2. A one-piece rail anchor comprising a spring metal member formed at one end with a jaw for engaging one edge of a rail base, at the other end with a return bent portion adapted to abut against a tie and provide a jaw for engaging the other edge of said rail base, and a web portion between said jaws which is normally flat when the anchor is free of the rail and is subjected to a tortional strain when the anchor is applied to a rail.

1,415,745. PROCESS OF MANUFACTURING LAMINATED VALVES. WILLIAM H. WASHBURNE, Chicago, Ill., assignor to Frank S. Shaw, Chicago, Ill. Filed Oct. 4, 1920. Serial No. 414,450. 2 Claims. (Cl. 29—156.7.)



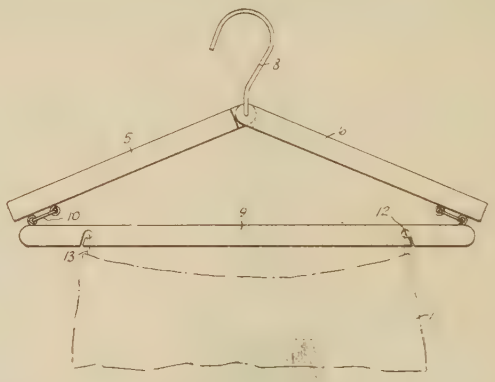
1. The process of making a laminated valve which consists in inserting a valve stem through a series of laminæ lying between clamping plates applying pressure to said plates in the vicinity of their margins to press the laminæ firmly together, and then riveting said stem over.

1,415,746. GRAIN-CAR DOOR. ARTHUR COULSON WATSON, Sarnia, Ontario, Canada. Filed May 5, 1921. Serial No. 467,155. 1 Claim. (Cl. 20—27.)



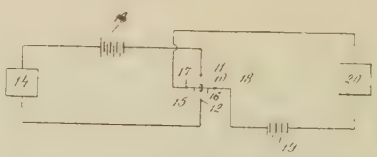
A grain car door adapted to be opened by the outward pressure of grain within the car, comprising a frame structure having rabbet grooves in the outer vertical edges adapted to fit the inner vertical edges of two adjacent vertical car timbers and having vertical grooves in the inner opposing faces of the vertical portions of the frame, a series of door sections extending crosswise of the door and fitting at their end edges into the aforesaid opposing grooves and divided vertically intermediately of their length into two portions, a hinge secured to the inner face of each section to connect the aforesaid portions together, a locking bar pivotally secured to one of such portions and a keeper member secured to the other of such portions, and means for locking the free end of the locking bar within the keeper member so that it extends crosswise at the joint between the aforesaid section portions.

1,415,747. GARMENT HANGER. PALMER D. WEEKS, New York, N. Y. Filed July 28, 1921. Serial No. 488,164. 1 Claim. (Cl. 211—13.)



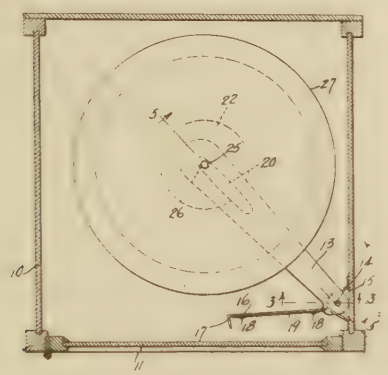
A hanger of the character described comprising a pair of bars pivotally secured together at one end to a suspension hook, said hook being adapted to be collapsible flush to one side of either of said bars, an eye screw secured to the free end of each bar, eye screws secured to the ends of said third bar, and links interposed between the eye screw of the pivoted bars and the eye screw of the third bar so as to form a triangular frame having its lower member in pendulum with respect to the upper member.

1,415,748. ELECTRICAL RESISTOR. EZECHIEL WEINTRAUB, New York, N. Y. Filed Apr. 30, 1920. Serial No. 377,942. 7 Claims. (Cl. 219—48.)



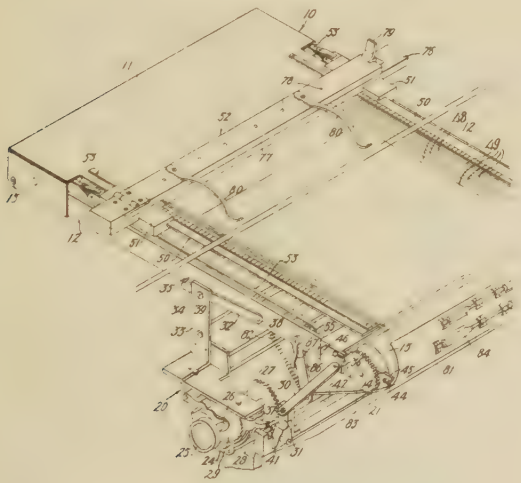
1. An electrical resistor of micronic dimensions possessing a negative temperature coefficient of resistance.

1,415,749. PHONOGRAPH-RECORD HOLDER. AARON WENGER, Bayonne, N. J. Filed Nov. 16, 1921. Serial No. 515,634. 6 Claims. (Cl. 211—16.)



1. The combination with a graphophone record cabinet, of means for normally supporting the records in superposed relation within the cabinet, said means including members mounted for horizontal swinging movement to project the record from the cabinet or position the same therein, and elements carried by said members, said elements being connected therewith for rotary and sliding movements.

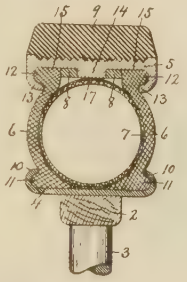
1,415,750. TYPEWRITING MACHINE. JOHN A. WHERRY, New Orleans, La., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed June 4, 1921. Serial No. 475,060. 14 Claims. (Cl. 197—126.)



1. In a typewriting machine, in combination, a platen-frame having a platen journaled therein, a collating device mounted at the front of the platen and comprising a collating table, and a carbon-roll mounted for reciprocatory movement on said device, said roll supplying carbon-sheets to be fed around said platen to said collating table, said carbon-roll moving downwardly on said device as said sheets are fed around said platen and upwardly on said table.

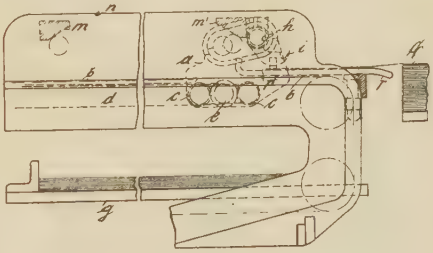
1,415,751. VEHICLE WHEEL. FREDERICK H. WILBUR, Binghamton, N. Y., assignor of one-fourth to George A. Reynolds and one-fourth to Samuel W. Reynolds, Binghamton, N. Y. Filed Mar. 24, 1920. Serial No. 368,212. 3 Claims. (Cl. 152—33.)

3. In a vehicle wheel, the combination of inner and outer circular rims in radially spaced relation, the outer rim being provided with inturned annular flanges along its marginal edges, separate flexible casing sections seated on the inner rim and engaged with the inner faces of said flanges, an inflatable tube between said casing sections, separate split rings seated against the inner face of the



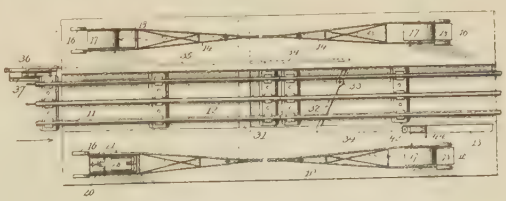
outer rim at opposite sides of the longitudinal center of said outer rim and engaging the inner faces of the outer edges of the casing sections for holding the latter in engagement with the flanges, and means for holding said split rings in transversely spaced relation.

1,415,752. DEVICE FOR INTERLEAVING SHEETS PRINTED IN CYLINDER-FLAT-BED MACHINES. CARL WINKLER, Berne, Switzerland. Filed July 30, 1921. Serial No. 488,636. 2 Claims. (Cl. 34—1.)



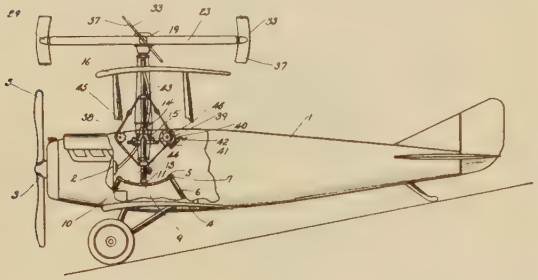
1. A device for interleaving sheets printed in cylinder-flat-bed machines, comprising, in combination with a reciprocation delivery device, normally closed grippers adapted to move backwards and forwards with said delivery device, a portable pile table for interleaving sheets provided just outside the range of said reciprocating delivery device, and tappets to open said grippers at the ends of the backward and forward strokes of said delivery device, substantially as, and for the purpose, set forth.

1,415,753. TOY RAILROAD-GATE SET. CHARLES WILLIAM WIRTH, Millvale, Pa. Filed Sept. 10, 1920. Serial No. 409,311. 6 Claims. (Cl. 39—62.)



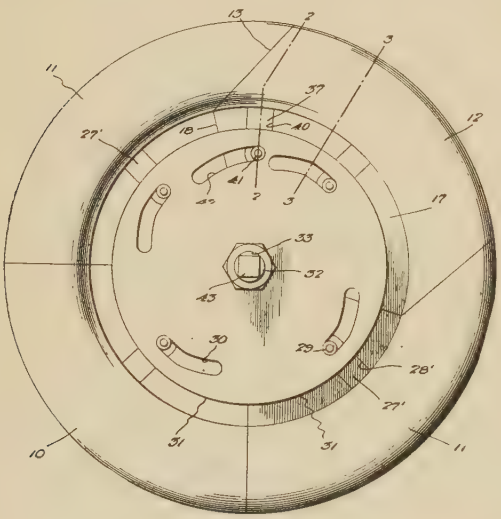
1. In a device of the class described, a gate mounted to swing on a horizontal axis, a pivoted platform connected to the gate so that the gate and platform swing together, said platform having guiding means, a weight slidable on the platform and guided by said means, and mechanism for shifting the position of the weight.

1,415,754. AEROPLANE ATTACHMENT. PHINEAS S. WOODS, Smithville, Mo. Filed Feb. 27, 1920. Serial No. 361,753. 6 Claims. (Cl. 244—15.)



1. In a device of the class described, a mast, a rotatable member carried by said mast, and retarding and sustaining members carried by the rotatable member normally in a plane parallel with the plane of the rotatable member, said sustaining members having radial and rotative movement into operative position due to centrifugal force generated by the rotatable member.

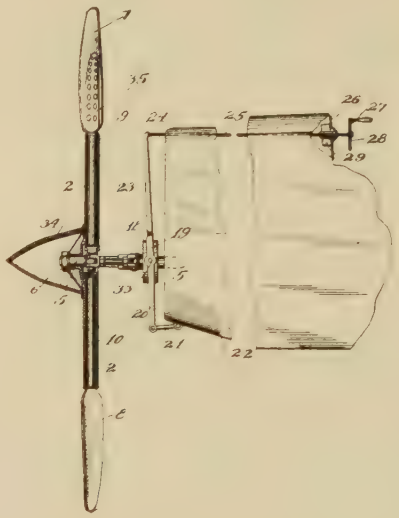
1,415,755. TIRE CORE. EDWARD WRIGHT, Dayton, Ohio. Filed Sept. 13, 1921. Serial No. 500,278. 4 Claims. (Cl. 18—45.)



1. A core for tire molds comprising opposed substantially circular core members, yieldable means for normally urging the members toward one another, radially movable means positioned between the core members, whereby the latter may be expanded and means including a rotatable cam plate engageable with the radially movable means, whereby the latter may be operated.

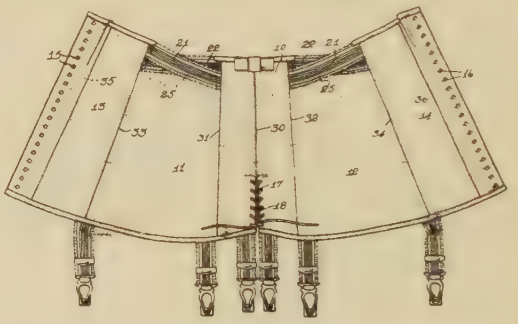
1,415,756. VARIABLE-PITCH PROPELLER. DAVID F. ZOOK, Pasadena, Calif. Filed Aug. 18, 1919. Serial No. 318,255. 1 Claim. (Cl. 170—163.)

A variable pitch propeller comprising a power driven shaft, a metal housing having a plurality of sleeves radially extending therefrom, a short sleeve centrally located with respect to said housing and extending outwardly therefrom, said last named sleeve arranged to engage said shaft and to support said housing thereupon at its outermost end, whereby the opposite side of said housing is unobstructed by supporting means and the interior thereof made readily accessible, tubular shafts disposed in said radial sleeve and arranged to project beyond both ends thereof, propeller blades carried by said tubular shafts at the outer ends of said sleeve, and means communicating with the opposite ends of said



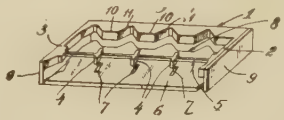
tubular shafts within said housing for turning said blades simultaneously at will, said radial sleeves being relatively longer than said propeller blades.

1,415,757. CORSET. ABRAHAM ZWIEBELSON, New York, N. Y. Filed Nov. 11, 1920. Serial No. 423,421. 4 Claims. (Cl. 2—73.)



2. A corset, comprising a front, sides extending integrally from the said front and having cut-out top edges, back parts extending integrally from the said sides, a lacing engaging the back parts for closing the corset at the back, a pair of crossed elastic bands attached at their ends to the front and corresponding back part at the upper ends thereof and extending across the cut-out portions of the said sides, the upper edges of the sides adjacent the bands being gathered to allow of expanding the sides on placing the elastic bands under tension.

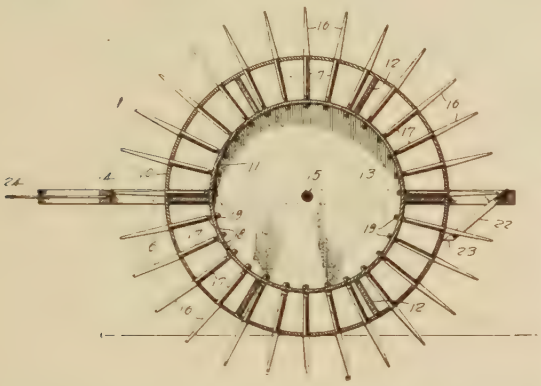
1,415,758. STRIP-SHINGLE CUTTER. HERBERT ABRAHAM, New York, N. Y., assignor to The Ruberoid Co., a Corporation of New Jersey. Filed May 19, 1920. Serial No. 382,495. 3 Claims. (Cl. 164—29.)



1. A device for cutting shingle strips from a web of prepared roofing comprising a reciprocating cutter having a transverse member extending diagonally of the web and

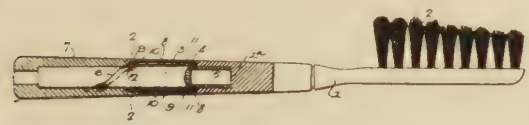
two side members extending parallel to the edges of the web, and a shear plate co-operating with the cutter in severing strips from the webs.

1,415,759. CULTIVATING IMPLEMENT. JAMES ALEXANDER ALLEN, Choccolocco, Ala. Filed Oct. 21, 1920. Serial No. 418,386. 1 Claim. (Cl. 55—24.)



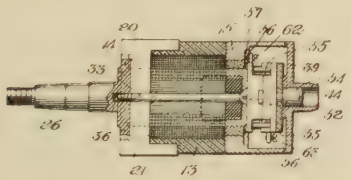
In a cultivator, a pair of concentric cylinders carrying radially projecting teeth, the teeth of pyramidal form and fixed with a face of the pyramid alined with the axis of the cylinders, the fixing means including a polygonal shank to the teeth with the faces of the polygon at an angle to the faces of the pyramid, the shank fitting a perforation in the outer cylinder and secured to the inner cylinder.

1,415,760. TOOTHBRUSH. LOUIS H. ALLES, Wilmington, Del. Filed June 14, 1921. Serial No. 477,510. 4 Claims. (Cl. 15—22.)



1. In a tooth brush, the combination with a brush-carrying body portion, of a handle element movable with respect to said body portion, said body and handle elements having registering spiral grooves therein, and an element established within said grooves and free to move relative to both body and handle element.

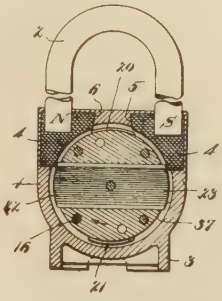
1,415,761. ROTOR FOR ELECTRICAL MACHINES. BUTLER AMES, Lowell, Mass. Filed Feb. 16, 1918. Serial No. 217,468. 15 Claims. (Cl. 171—208.)



1. In an electrical machine, a rotor comprising an axial magnetic core, a winding mounted upon the core axially with the rotor, end members on opposite sides of the winding, and laminated pole pieces secured in the end members, the pole pieces being disposed in juxtaposition to the core and extending radially from the axial region of the rotor.

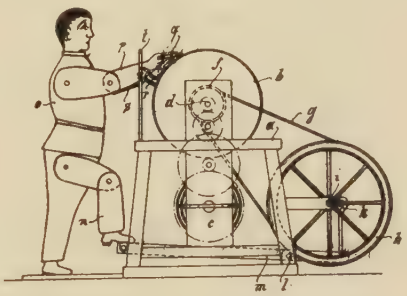
6. A rotor comprising an axial core, a winding surrounding said core, a cylinder of rigid insulating material surrounding said winding, end members covering the ends of said winding and the ends of said cylinder, and rods extending longitudinally through said cylinder for connecting said end members together.

1,415,762. STATOR FOR ELECTRICAL MACHINES. BUTLER AMES, Lowell, Mass. Original application filed Feb. 16, 1918, Serial No. 217,468. Divided and this application filed Apr. 20, 1921. Serial No. 465,414. 4 Claims. (Cl. 171—209.)



1. In an electrical machine, a stator comprising a laminated pole piece, the laminations on one side of said pole piece having alined openings therein and the succeeding laminations being continuous so as to form a recess with a flat bottom, and a magnet fitting into said recess, said magnet having a flat end seating against said flat bottom.

1,415,763. DEVICE FOR PRODUCING SPARKS FOR TOYS. KARL ARNOLD, Nuremberg, Germany. Filed Jan. 24, 1914. Serial No. 814,240. 1 Claim. (Cl. 46—40.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

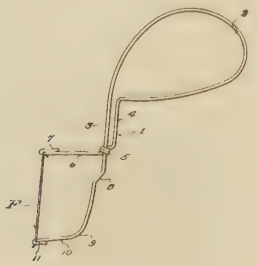


A toy representing a knife grinder with grinding lathe comprising in combination with the grinding lathe, a figure of a man with movable arms, a tool held by said arms, an emery disc forming the grinding disc, a body of pyrophorous metal such as ferro-cerium fixed to the arm of the figure so that it is pressed with slight pressure against said emery disc, the sparks coming out from under said tool.

1,415,764. ARTIFICIAL FLOWER AND METHOD OF MAKING IT. ESTELLA BAKER AUSTIN, Los Angeles, Calif. Filed Jan. 18, 1921. Serial No. 438,192. 10 Claims. (Cl. 41—13.)

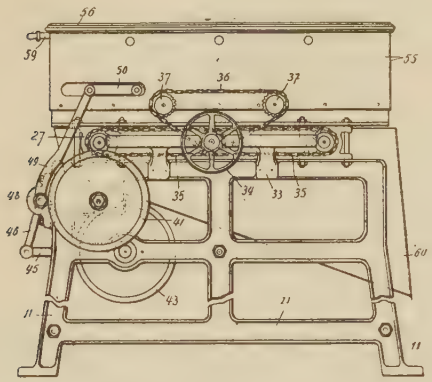
1. As a new article of manufacture, an artificial flower member comprising a fibrous body, and a section of netting enclosing said fibrous body and forming an external covering therefor.

1,415,765. DENTAL FLOSS HOLDER. THEODORE A. BAILEY, Orlando, Fla. Filed July 28, 1921. Serial No. 488,112. 1 Claim. (Cl. 132—91.)



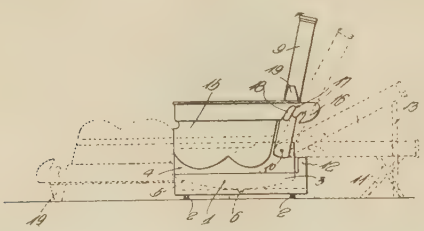
An implement of the class described composed of a single piece of spring wire bent intermediate its ends to form a substantially ovate loop, wire arms extending from the smaller end of said loop in parallel relation and substantially at right angles to the loop, one of said arms being twisted around the other to form a guide therefor and then extended laterally in a plane at right angles to the arm around which it is twisted, the upper arm being extended laterally, the terminals of said arms bent inwardly to form thread clamping elements.

1,415,766. PEELING MACHINE. VINCENT EMILÆ BALLESTER, Brussels, Belgium. Filed May 24, 1921. Serial No. 472,218. 9 Claims. (Cl. 146—14.)



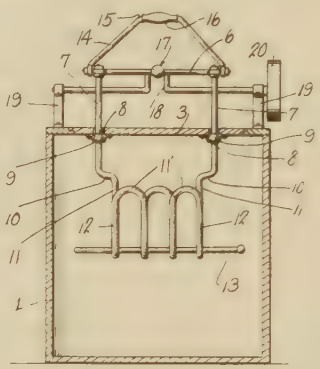
1. A machine for peeling potatoes and like articles comprising a support for the articles to be peeled constituted by a plurality of rotary abrading members or scrapers upon and between which the potatoes rest and means for rotating said members substantially as described.

1,415,767. CONVERTIBLE CHAIR. BENJAMIN C. BARTLEBAUGH, Wheeling, W. Va. Filed Sept. 19, 1921. Serial No. 501,729. 4 Claims. (Cl. 155—49.)



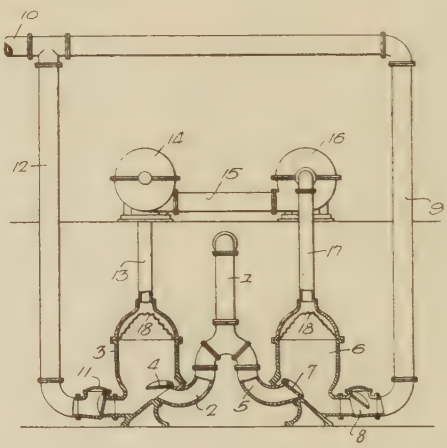
1. A convertible chair comprising a base, a seat section rockably mounted on said base, a back section pivoted to said seat section and movable downwardly to coact therewith in forming a bed, and means for preventing said seat section from rocking when said back section is swung downwardly, comprising a wall rising from and extending transversely across said base in rear of said seat section to support the inner end of said back section.

1,415,768. AGITATOR FOR WASHING MACHINES. SIMON BECK, Rathdrum, Idaho. Filed Nov. 22, 1920. Serial No. 425,887. 1 Claim. (Cl. 68—15.)



An agitator for washing machines formed from a single piece of material and comprising a pair of spaced inclined parallel loops provided with vertical tips, an oppositely disposed inclined loop extending upwardly from the inner ends of the spaced loops and having a vertical tip disposed in a plane parallel to the tips of the spaced loops, a pair of parallel arms extending upwardly from the outer ends of the spaced loops, provided with inclined intermediate portions and having spherical enlargements adjacent to the inclined portions thereof.

1,415,769. PUMPING SYSTEM. HUBERT BEDDOES, Florence, S. C. Filed Feb. 17, 1922. Serial No. 537,222. 8 Claims. (Cl. 103—79.)

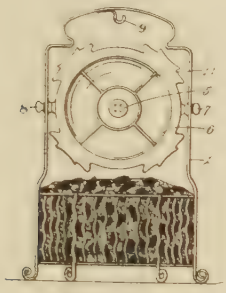


1. The combination of flow reversing pumping apparatus; a source of solid-carrying liquid and a delivery conduit both connected to said apparatus; and a screen connected between said pumping apparatus, the source and the delivery conduit for preventing solid bodies passing to the pumping apparatus.

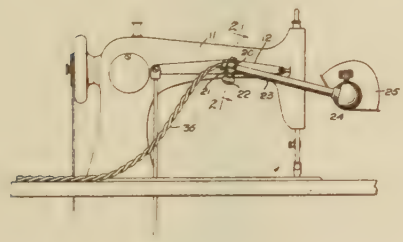
1,415,770. ELECTRIC RADIATOR. HERBERT HENRY BERRY, London, England. Filed May 3, 1921. Serial No. 466,519. 2 Claims. (Cl. 219—34.)

1. An electric radiator for imitating fire, comprising a frame, imitation fuel carried in the lower end of the

frame, a lamp for illuminating said fuel, a reflector pivoted in the frame above the fuel, a heating element secured to and in front of said reflector, and means for supporting a utensil from the top of the frame over the reflector, whereby in one position of the reflector the heat of the heating element will be directed laterally from the same and in another position will direct the heat toward the bottom of a utensil supported on said means, while the fuel is illuminated imitating fire.



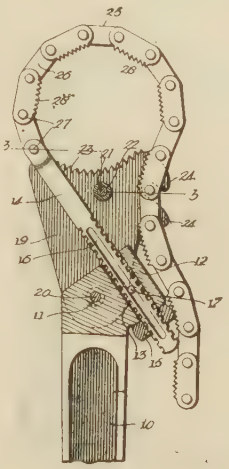
1,415,771. LIGHT ATTACHMENT FOR SEWING MACHINES. ANGELO TORQUATO BERTOLINI, New York, N. Y. Filed Jan. 28, 1921. Serial No. 440,751. 1 Claim. (Cl. 240—2.)



A light attachment for sewing machines, comprising a stud for attachment to a sewing machine, a lamp carrying bracket, a clamp engaging the said bracket, a joint having U-shaped joint members pivotally connected with each other at their ends, a screw connecting one of the joint members with the said clamp, and a screw connecting the other joint member with the head of the said stud.

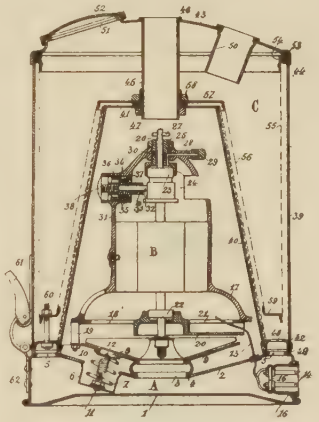
1,415,772. FLEXIBLE CHAIN WRENCH. WILLIAM LOUIS BESSOLO, San Diego, Calif. Filed Feb. 12, 1921. Serial No. 444,440. 3 Claims. (Cl. 81—66.)

1. A wrench comprising a handle having a head at one end provided with an angular extension having a bore therethrough at an angle to the handle, a powell consisting of spaced side plates in connected relation, whose inner portions extend upon and are pivoted to opposite sides of the said head, said plates being provided at one side with hooks, a shank extending angularly between the said side plates and having its inner threaded portion projecting through the bore of the head extension, a nut engaging the threaded portion of the said shank and bearing against the outer face of the head, and a flexible chain connected at one end to the outer end of said shank, said chain consisting of a series of links having connecting



pivot pins projecting laterally beyond the links for engagement by the hooks of the pivoted powell.

1,415,773. ELECTRICALLY-OPERATED VACUUM CLEANER. GEORGES ROBERT BIMM, Aubervilliers, France. Filed Oct. 29, 1921. Serial No. 511,500. 6 Claims. (Cl. 183—37.)



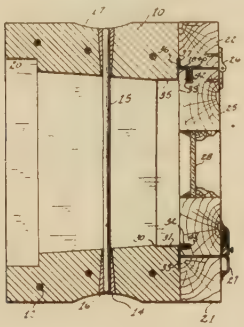
1. In an electrically operated portable vacuum cleaner, a box, a motive group within the box, a casing inside the box, surrounding the motive group to form an annular space between box and casing, a filtering cloth suspended in the said annular space, a cover, an air outlet from the space within the said casing, a dust inlet to the space between the cover and the filtering cloth, means to ensure tensioning of said filtering cloth, and means, to permit passage of filtrated air through the inner space of the said casing to the outlet, substantially as described.

1,415,774. ELECTRODE FOR ELECTRIC-ARC WELDING AND METAL-CUTTING PURPOSES. WILLIAM HANSON BOORNE, London, England. Filed Mar. 28, 1921. Serial No. 456,186. 3 Claims. (Cl. 219—8.)

1. An electrode for arc welding and like purposes comprising a metal core on which is placed a coating of calcium hydrate and water, a carbonaceous fibre winding to which is applied asbestos which contains a high percentage of silica and ferrous protoxide; calcined mag-

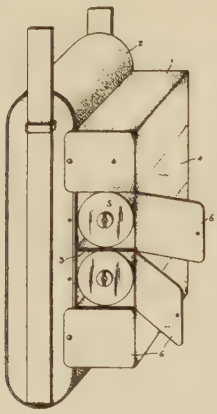
nesite with ferrous silicate and graphite, all intimately incorporated and ground to a powder, and mixed with a solution of silicate of soda.

1,415,775. FRAME CONSTRUCTION. ALBERT G. BORCHERT, Cleveland, Ohio. Filed Oct. 20, 1920. Serial No. 418,290. 9 Claims. (Cl. 72—98.)



8. A concrete frame having a rabbeted edge, metal reinforcement therefor doubled on itself to provide a projecting flange and a closure having a groove to receive said flange.

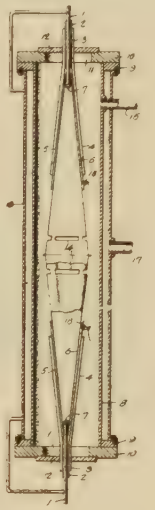
1,415,776. FILM HOLDER. ALEXANDER BRUCE BOURNE, Wallaceburg, Ontario, Canada. Filed Nov. 4, 1918. Serial No. 260,970. 1 Claim. (Cl. 190—52.)



A camera film holder adapted to be connected to the side of the camera case and having one longitudinal side thereof open, a cover adapted to close said open side, and partitions arranged transversely of said holder forming a plurality of transverse compartments each open at one end.

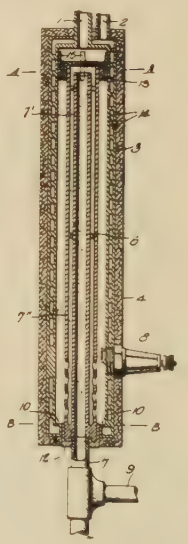
1,415,777. STEAM GENERATOR. WILLIAM SPENCER BOWEN, New York, N. Y. Filed Feb. 16, 1920. Serial No. 359,079. 6 Claims. (Cl. 60—46.)

1. A steam generator comprising a casing provided with a water jacket, a hollow conical body within and spaced from said jacket having outlet ports therein, a source of heat within the casing and surrounding said conical body and means for introducing water from said jacket to



the interior of said body in the form of a finely divided spray.

1,415,778. STEAM GENERATOR. WILLIAM SPENCER BOWEN, New York, N. Y. Filed Feb. 16, 1920. Serial No. 359,080. 9 Claims. (Cl. 60—46.)

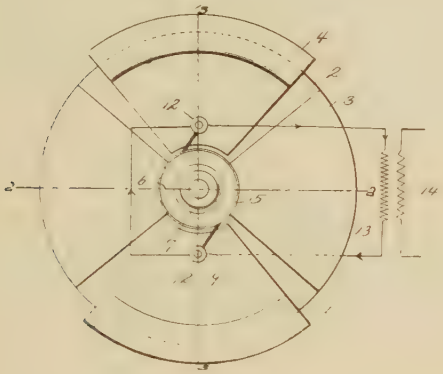


1. A device for developing energy comprising a water jacket, formed at one end with restricted orifices, insulating material surrounding said jacket, infusible burner tubes adapted to be heated to high temperatures located within the jacket, whereby the water in passing through the jacket is heated above the temperature of vaporization at the pressure prevailing on the interior of said jacket and flashes into steam on passing through said orifices.

1,415,779. ELECTROSTATIC GENERATOR. WILLIAM SPENCER BOWEN, New York, N. Y. Filed Mar. 30, 1920. Serial No. 369,890. 2 Claims. (Cl. 171—23.)

1. A pulsating current generator comprising a stationary condenser having spaced plates with a dielectric medium therebetween, a condenser adapted to rotate be-

tween said plates and move into and out of the electrostatic field set up in said dielectric and means for electrically connecting the plates on opposite sides of said rotating condenser whereby a pulsating surge of electrical charges is set up in said means.

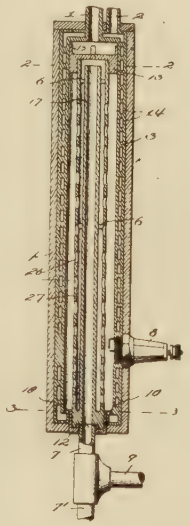


1,415,780. METHOD OF PRODUCING HEAT. WILLIAM SPENCER BOWEN, New York, N. Y. Filed Aug. 17, 1920. Serial No. 404,248. 3 Claims. (Cl. 60—44.)

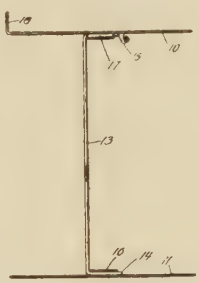
1. The method of producing heat, which consists in conducting fuel and a combustion supporting gas in proportions to form an explosive mixture in co-axial gradual tapering streams, mixing the fuel and gas near the point of ignition, enveloping a cone-shaped moving column of air in the burning fuel and gas mixture, and subsequently introducing air from said column into the products of combustion.

1,415,781. METHOD OF PRODUCING HEAT. WILLIAM SPENCER BOWEN, New York, N. Y. Filed Aug. 17, 1920. Serial No. 404,249. 4 Claims. (Cl. 60—44.)

1. The method of producing heat, which consists in causing an explosive gaseous mixture to flow with an initial velocity greater than the rate of propagation of inflammation through the mixture, reversing the path of flow of the mixture into a stream of greater sectional area whereby the flow velocity of the mixture is rapidly reduced and burning takes place where the flow velocity equals the rate of propagation of inflammation through the mixture.



1,415,782. DISPLAY STAND. HENRY P. BRACE, Chicago, Ill., assignor to Lee Trailer & Body Company, Chicago, Ill. Filed Nov. 1, 1920. Serial No. 421,045. 2 Claims. (Cl. 211—24.)

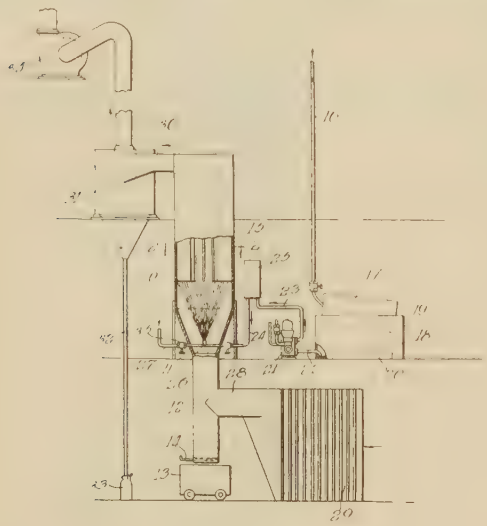


1. A device of the character described comprising a shelf portion, a base plate and a standard, and means for removably uniting the opposite extremities of said standard with said shelf and base respectively, said means including wide, flat fingers on said standard and loops upon the shelf and base into which said fingers respectively project, said loops being formed from the body of the material by being expanded laterally therefrom.

1,415,783. METHOD OF AND APPARATUS FOR EVAPORATING LIQUID OR SEMILIQUID SUBSTANCES. RICHARD G. BRINDLE and AMOS H. FLINT, Chicago, Ill., assignors to Corn Products Refining Company, a Corporation of New Jersey. Filed July 3, 1918. Serial No. 243,246. 4 Claims. (Cl. 127—9.)

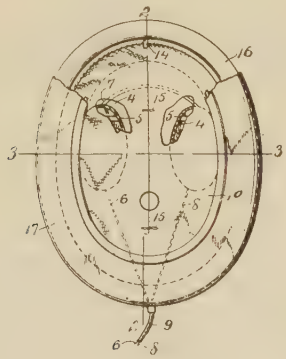
2. Method of evaporating a liquid or semi-liquid substance which consists in subjecting the substance to alternate treatments as follows: First directing the substance in the form of a spray against a collecting surface together with a draft of a drying gas insufficient in amount

to completely evaporate the moisture from said substance, and then changing the proportion of the liquid substance



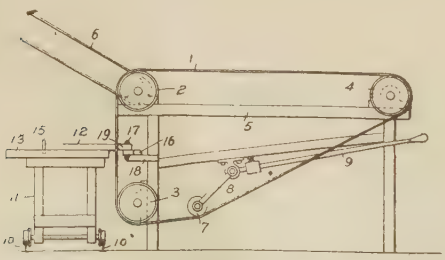
to the drying gas so that the latter will be capable of drying the substance collected on said surface.

1,415,784. ELECTRICAL BODY HEATER AND STEAMER. HOMER G. BROCK, Kansas City, Mo. Filed Mar. 2, 1921. Serial No. 449,188. 6 Claims. (Cl. 128—254.)



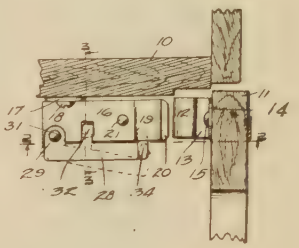
1. In a device of the kind described, an outer shell, an inner shell attached thereto, heating insulating material between said shells, a heating element between said material and the inner shell, and an absorbent pad carried by and removably mounted in the inner shell, substantially as set forth.

1,415,785. EDGE-SMOOTHING MACHINE. CHRISTOPHER BROWN, Charleroi, Pa. Filed May 18, 1918. Serial No. 235,263. 2 Claims. (Cl. 51—141.)



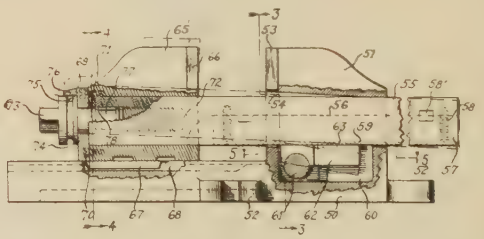
1. In combination in an edge smoothing machine, a sheet support, an endless abrading or smoothing belt mounted to run transversely of the sheet carried on the support, means for driving the belt, and a presser member back of the belt opposite the edge of the sheet and mounted to move freely toward the belt to press it against the edge of the sheet, and also longitudinally of the belt.

1,415,786. LATCH. JAMES NEULIN BROWN, Des Moines, Iowa, assignor of one-half to John C. Little, Des Moines, Iowa. Filed Apr. 13, 1921. Serial No. 460,906. 1 Claim. (Cl. 292—17.)



In a door latch structure, a latch member comprising a strip of resilient material folded over on itself and having in its parallel portions elongated registering openings, said portions forming near one end spaced engaging members curved toward each other and then from each other at their free ends, a coacting member having an enlarged hollow end adapted to be received between said engaging members, a locking element, a means arranged to pivot one end of the locking element to said first latch member and securing together the portions of the first latch member, a member on said locking element overlapping said first latch member having a portion projecting in to said elongated openings for limiting the pivotal movement of the locking member, and means on the locking member for entering said hollow end for locking the latch members together.

1,415,787. QUICK-SETTING VISE. GEORGE H. BUCKLEY, Indianapolis, Ind., assignor to National Metal Products Company, Indianapolis, Ind., a Corporation of Indiana. Filed Sept. 15, 1920. Serial No. 410,527. Renewed Apr. 1, 1922. Serial No. 548,800. 6 Claims. (Cl. 90—60.)



1. A milling machine vise, comprising the combination of a base carrying a stationary jaw, a shank movable longitudinally through said standard jaw, locking means for holding said shank in a fixed position in said stationary jaw, said locking means being releasable by tilting upward the front end of said shank, and a movable jaw adjustable on said shank and normally resting on said base.

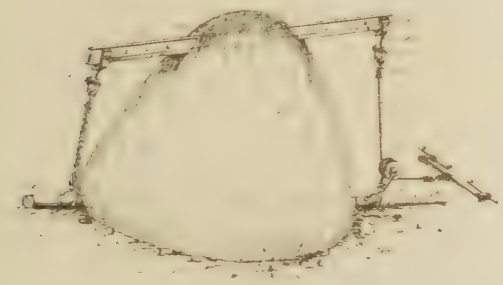
1,415,788. COUPLING DEVICE FOR OIL WELLS. PORTER H. BURLIN, Limestone, N. Y. Filed May 25, 1921. Serial No. 472,431. 1 Claim. (Cl. 285—22.)

A coupling device for oil wells in one piece or a single casting comprising a body portion having an outwardly projecting flange at its lower end providing a shoulder, an integral tube-receiving portion extending from said shoulder throughout of approximately the same diameter as said body portion threaded to receive the upper end of the well tubing and having a plain external surface imme-

diately below the shoulder, a pipe connection projecting from one side of the body portion, and a threaded integral tubular extension on the body portion above the connection to receive a gland nut; said coupling device being

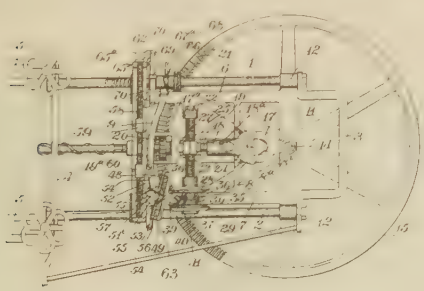
adapted for use in connection with a casing-head and an annular disk secured in the upper end of said casing-head and upon which said coupling device is seated, as herein shown and described.

1,415,789. POWER-ACTUATED HAY KNIFE. FRANK CABALKA, Geddes, S. Dak. Filed Feb. 3, 1922. Serial No. 533,812. 5 Claims. (Cl. 146—33.)



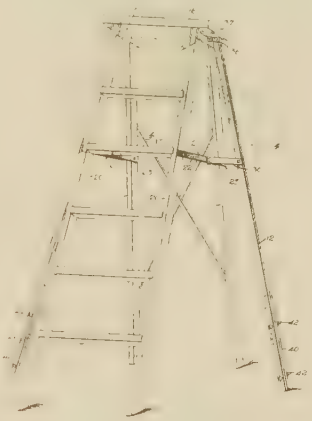
1. A hay knife, comprising an elongated bar or support adapted to underlie and traverse a stack of hay, an elongated knife of a length to extend over the stack for the full diameter of the latter and located over the bar lengthwise of the latter, flexible connections to each end of the bar knife, and power means connected with one end of said flexible connections and adapted to draw said knife longitudinally in the direction of the extension of said bar.

1,415,790. MORTISING MACHINE. GEORGE W. CAMPBELL, Columbus, Ohio. Filed Dec. 30, 1920. Serial No. 434,022. 3 Claims. (Cl. 144—70.)



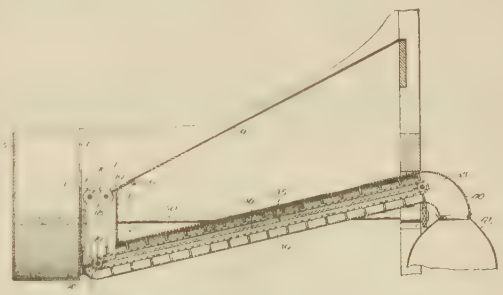
1. In a mortising machine, a main frame, an oscillatory tool carried by said frame, a screw having an operative connection with said tool, means for rotating said screw in opposite directions comprising a shiftable clutch, a pivoted shifting lever for said clutch, a pair of springs carried by said lever, a latch for said lever in each of its positions, a slidable bar operated by the oscillations of the tool adapted to compress one or the other of said springs for initially shifting said lever, a beveled member on said shifting lever extending from the side thereof at right angles to the plane of its oscillation, and a beveled spring-actuated pin on the main frame of the machine cooperating with said beveled member on the shifting lever to finally shift said clutch into operative position.

1,415,791. STEPLADDER. FRANK JOSEPH CARONIA, New York, N. Y. Filed Mar. 5, 1921. Serial No. 449,737. 3 Claims. (Cl. 228—31.)



3. The combination of a ladder having a top shelf, of an attaching plate having an angularly extending portion rotatably connected to the said top shelf and beneath the same, and a prop having its upper portion flatly connected with one side of said attaching plate and having its upper end flatly engaging the angularly extended portion of said plate, and bracing means for said prop.

1,415,792. PNEUMATIC STRAW STACKER. FRANK B. CARTER, Indianapolis, Ind., assignor to The Indiana Manufacturing Company, Indianapolis, Ind., a Corporation of West Virginia. Filed Jan. 26, 1921. Serial No. 439,926. 16 Claims. (Cl. 130—17.)

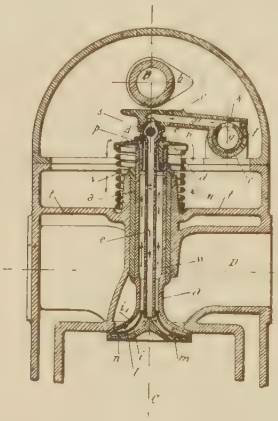


13. In a pneumatic stacker, a grain trap comprising rollers arranged in parallel and spaced relation, and means for actuating the same.

1,415,793. COOLING ARRANGEMENT FOR EXHAUST VALVES OF INTERNAL-COMBUSTION ENGINES. GIUSTINO CATTANEO, Milan, Italy. Filed Apr. 27, 1918. Serial No. 231,283. 4 Claims. (Cl. 123—177.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

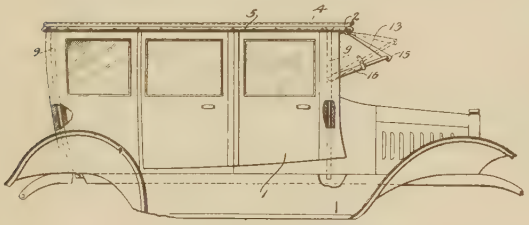
1. In an internal combustion engine, the combination with a valve having a hollow body and stem, and a hollow

valve head mounted in said stem, of a hollow actuating member engaging said valve head, the engaging surfaces



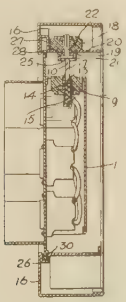
of said actuating member and valve head having apertures connecting the interior of said member with the interior of said valve head.

1,415,794. DRAINAGE SYSTEM FOR VEHICLES. LEONARD CHARBONNEAU, Ogdensburg, N. Y. Filed July 26, 1921. Serial No. 487,639. 7 Claims. (Cl. 296—137.)



2. In a drainage system for vehicle tops, the combination with a drip trough extending completely about the top of the body, of a windshield protector arranged at the front of the vehicle body and adapted to receive water from the top collected by the drip trough and convey it from the top, said windshield protector projecting in advance of the windshield to prevent the water from collecting upon said windshield.

1,415,795. ELECTRIC CONTACT. JOHN B. CHEMIDLIN, Plainfield, N. J. Filed Apr. 13, 1921. Serial No. 461,129. 3 Claims. (Cl. 40—130.)

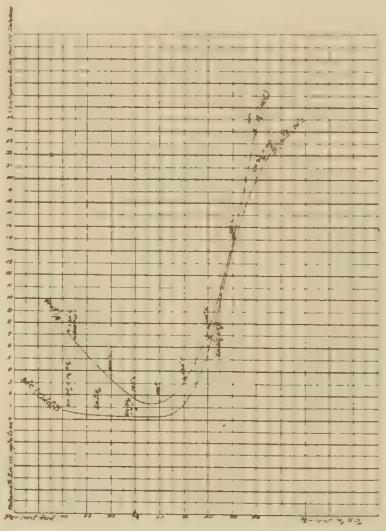


1. In a contact of the character described a supporting insulating plate, a pin arranged on said plate, a co-acting plate, a spring pressed contact rod carried by said second plate and an insulating cup surrounding the end of said pin.

1,415,796. PROCESS OF TREATING LEAD-ZINC SULPHIDE ORES. NIELS C. CHRISTENSEN, Salt Lake City, Utah. Filed Oct. 11, 1919. Serial No. 330,035. 20 Claims. (Cl. 75—18.)

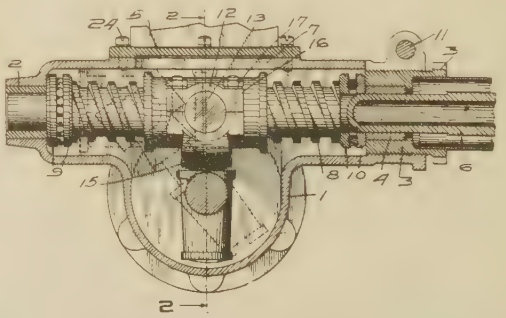
1. The process of treating lead-zinc sulphide ores and concentrates which consists in treating the comminuted ore with hot concentrated sulphuric acid, thereby dissolving the zinc as a sulphate, separating the hot acid solution from the residue of the ore, and cooling said solution and thereby precipitating zinc sulphate therefrom, treating the residue of ore from foregoing treatment with a hot concentrated chloride solution containing acid and thereby dissolving the lead and silver as chlorides, and separating last said hot solution from the remainder of the ore and precipitating the silver and lead therefrom.

1,415,797. PROCESS OF TREATING ZINC ORES AND ZINC PRODUCTS. NIELS C. CHRISTENSEN, Salt Lake City, Utah. Filed Feb. 21, 1920. Serial No. 360,484. 8 Claims. (Cl. 75—18.)



1. The process of treating zinc ores and zinc products to separate the zinc therefrom as zinc sulphate, which consists in dissolving the zinc from said products in sulphuric acid to form a solution of zinc sulphate in a relatively dilute sulphuric acid solution and concentrating said acid solution and precipitating zinc sulphate therefrom by reason of the increased concentration of the H_2SO_4 in said solution.

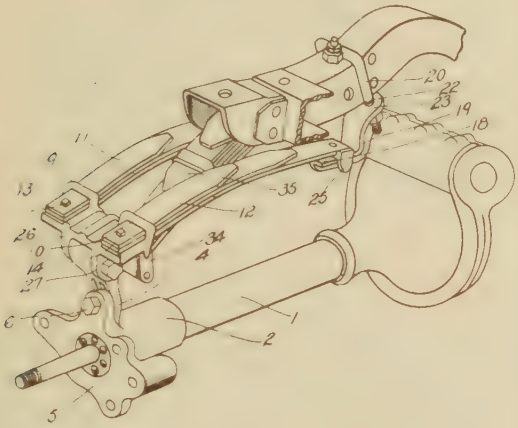
1,415,798. STEERING GEAR. JAMES R. CLARK and HOWARD A. FLOGAUS, Toledo, Ohio. Filed Dec. 20, 1920. Serial No. 431,834. 3 Claims. (Cl. 74—79.)



1. In a steering gear, the combination of a worm, a block for receiving the worm and having bearing trunnions extending on opposite sides of the block, the axes of the trunnions being located in line at right angles to the axis of the worm and extending through the axis

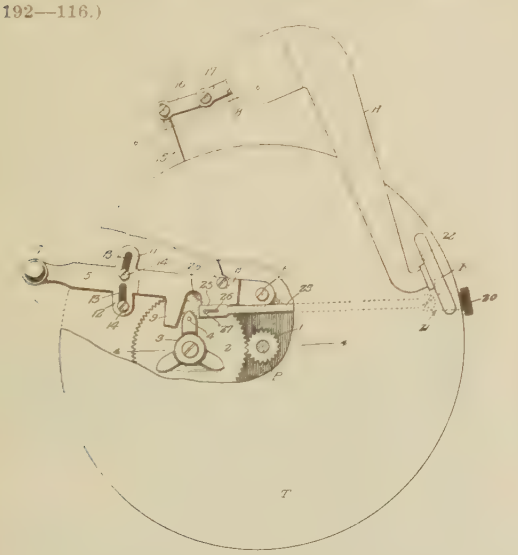
of the worm, a yoke having bearing members and clamping bearing blocks forming bearing surfaces at the ends of the yokes and on the blocks, and fitting the trunnions, a pin formed integral with the yoke, a shaft located at right angles to the axis of the worm and at right angles to the pin, and having a boss extending away from the axis of the worm, and having a bearing surface for the pin extending through the shaft and the boss.

1,415,799. SHOCK ABSORBER. RAY V. CONVERSE, Kansas City, Mo. Filed Oct. 11, 1920. Serial No. 416,132. 7 Claims. (Cl. 267—17.)



4. In combination with a motor vehicle, perches secured to opposite ends of the rear axle, pivoted brackets carried by the perches, parallel leaf springs carried by the pivoted brackets and having inwardly projecting free ends, box-shaped bearing members on the free ends of the springs, step brackets carried by the vehicle frame and extending beneath the box-shaped bearings on the free ends of the springs, anti-friction bearings between the step brackets and the box-shaped bearings, and connections between the pivoted brackets and the rear springs of the vehicle.

1,415,800. AUTOMATIC NONSET STOP FOR TALKING MACHINES. LE ROY COPLIN, Windber, Pa. Filed Oct. 11, 1920. Serial No. 416,227. 13 Claims. (Cl. 192—116.)

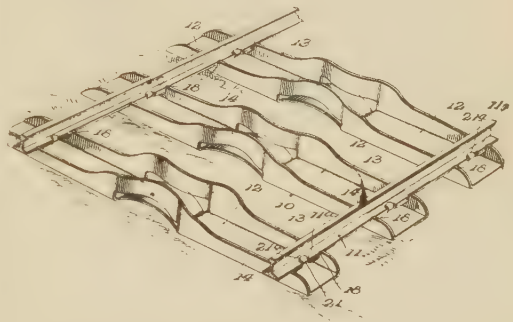


13. In an automatic non-set stop for talking machines, the combination with a tone arm; of an arm carried by said tone arm, a bar pivoted at one end to the free end of said arm, a brake normally held in inoperative position, means to apply said brake, and cooperating means carried by said bar and one member of said brake applying means, operable on the inward movement of the tone arm to prevent application of the brake.

1,415,801. ANIMAL TRAP. GEORGE F. CORLE, Bolton, Kans. Filed July 7, 1921. Serial No. 482,944. 2 Claims. (Cl. 43—65.)

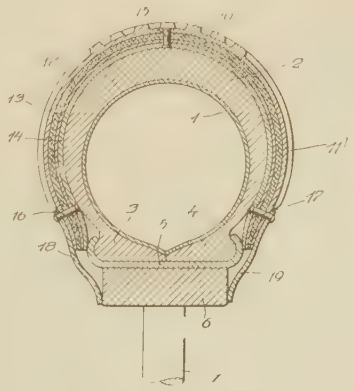
1. An animal trap comprising a body, a wooden frame applied to an end portion of the body and having the extremity of the latter bent to overlie the face of the frame, fastenings driven into the wooden frame and securing the body thereto and a metal casing protecting the inner side of the wooden frame.

1,415,802. RAILWAY TRACK. JAMES LE ROY COSBY, Albuquerque, N. Mex. Filed Feb. 4, 1922. Serial No. 534,115. 7 Claims. (Cl. 238—63.)



2. A railway tie constructed entirely of metal and comprising a channel having a base section and side flanges, the base section and the side flanges having flexing portions adapted to come into bracing and positive engagement after having partaken of a certain degree of flexion, said side flanges having means for engaging and supporting rails.

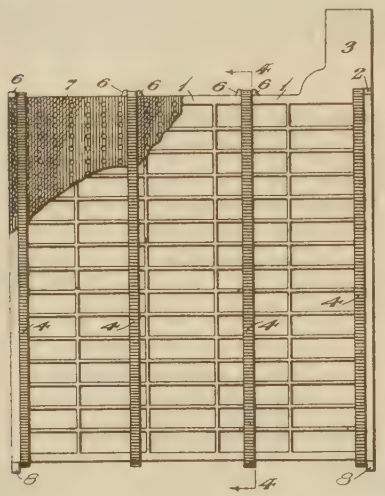
1,415,803. TIRE PROTECTOR. PATRICK M. CRAIN and JOHN P. SMITH, Hammond, Ind. Filed Mar. 1, 1922. Serial No. 540,264. 2 Claims. (Cl. 152—16.)



2. A tire protector comprising an outer sectional sheath of aluminum having antiskid studs on its tread

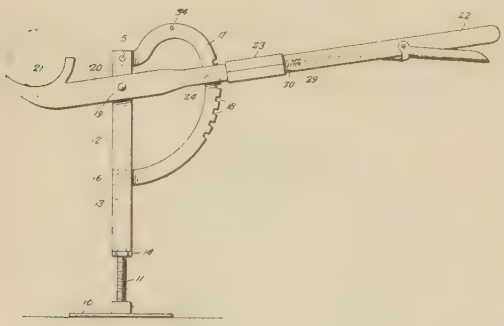
part and external ribs on the outer side portions thereof, a relative deep layer of felt within the sheath, a layer of asbestos lying beneath the felt, a layer of fabric within the asbestos, means for securing the several layers to the tread and side portions of the sheath, and yieldable means for holding the sections of the sheath together.

1,415,804. STORAGE BATTERY AND METHOD OF MAKING IT. WALTER H. CRISSEY, Reading, Pa. Filed May 12, 1921. Serial No. 468,849. 3 Claims. (Cl. 204—29.)



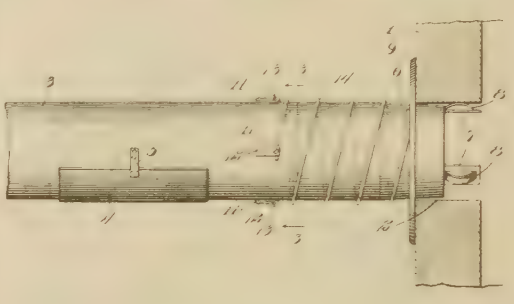
1. The method of insulating a battery plate, which consists in forming a battery plate with seats, heating hard rubber rings to expand them, passing said rings over said plates into register with said seats, and allowing said rings to cool, whereby they contract and are positively locked in said seats and retained thereby in spaced relationship on said plate.

1,415,805. JACK. THOMAS H. CYRUS, Covelo, Calif., assignor of one-half to George W. Goforth, Covelo, Calif. Filed May 19, 1921. Serial No. 470,803. 1 Claim. (Cl. 254—129.)



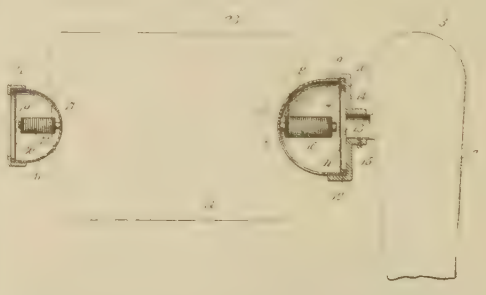
In a lifting jack, a supporting standard, a notched segmental member connected to said standard, an operating lever pivoted intermediate the ends to said standard, a sleeve member slidable on said operating lever and having a projecting lip at one end bearing over said segmental member and with a perforated lug outturned at the other end, a pawl device connected internally of said sleeve and adapted to engage the notch of said segmental member which for the time being is covered by said lip, a guide pin carried by said lever, a spring carried by said rod and operating to maintain said sleeve with the pawl device in yieldable engagement with the notch of the segment, and means operative on said lever to move said sleeve and the pawl device carried thereby against the resistance of said spring to release the pawl from the segment.

1,415,806. STOVEPIPE ANCHOR OR LOCK. JOSEPH E. DAMAN, St. Louis, Mich. Filed Nov. 17, 1917, Serial No. 202,669. Renewed Mar. 30, 1922. Serial No. 548,190. 1 Claim. (Cl. 126—318.)



A means for holding a stove pipe in a chimney flue opening, comprising, in combination with a stove pipe having a tapered end to be received in the flue opening, longitudinally arranged spaced flat spring plates having their inner ends secured in the pipe inward of the tapered end thereof and their outer ends extending through the tapered end, and said spring plates having each an integral outwardly directed arched spring tongue adjacent to the outer end thereof, and having an opening opposite the tongue through which the tongue is free to move, said tongues having their inner and free ends disposed to contact with the end of the pipe to limit the outward springing movement thereof.

1,415,807. SOUND-REPRODUCING DEVICE. PATRICK B. DELANY, South Orange, N. J. Filed Feb. 1, 1918. Serial No. 214,951. 9 Claims. (Cl. 179—100.1.)

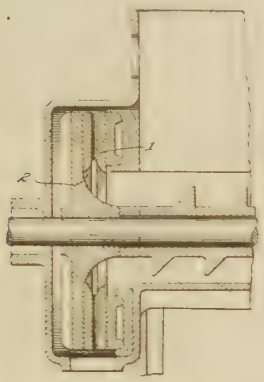


1. A sound reproducing device comprising: a sound reproducing instrument having a tubular sound wave directing member, a telephone transmitter of the current-generating type mounted on the side of said tubular member in position to be actuated by sound wave disturbances within said member, and a telephone circuit within which said transmitter is included.

1,415,808. GRINDING DISK. ABRAHAM M. DELLINGER, Lancaster, Pa. Filed Apr. 28, 1920. Serial No. 377,224. 12 Claims. (Cl. 83—8.)

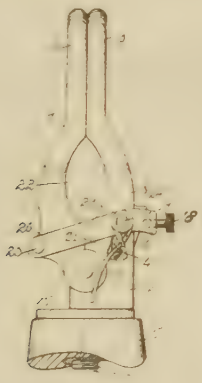
1. A grinding disk provided with a feed rib extending within the eye of said disk, and having a web extend-

ing from said rib to said disk, said web being disposed at that side of said rib which is toward the direction



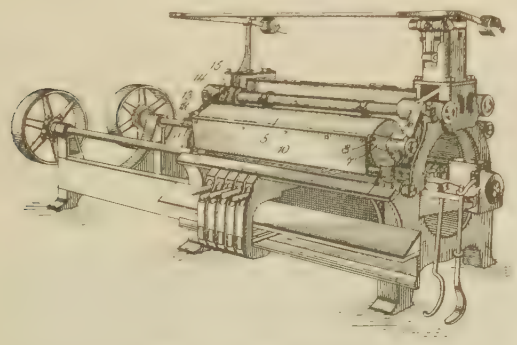
of rotation of said disk and terminating at the tip of said rib.

1,415,809. ARTIFICIAL HAND. OTTO LE GRAND DILWORTH, Hartford, Conn. Filed Aug. 31, 1920. Serial No. 407,200. 6 Claims. (Cl. 3—12.)



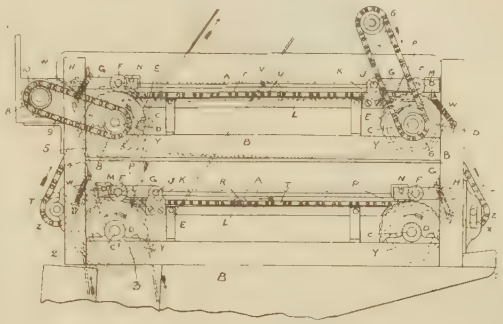
2. An artificial hand comprising a rigid finger, a swinging finger movably supported by the rigid finger, a lever pivotally attached to one of said fingers and in movable contact with an abutment on the other finger, whereby movement of said lever with respect to said abutment will cause a swinging movement of said finger, and means for operating said lever.

1,415,810. ROLL GUARD FOR EDGING MACHINES. GEORGE W. DORMAN, Everett, Wash., assignor to Sumner Iron Works, Everett, Wash., a Corporation of Washington. Filed Aug. 26, 1920. Serial No. 406,162. 9 Claims. (Cl. 144—251.)



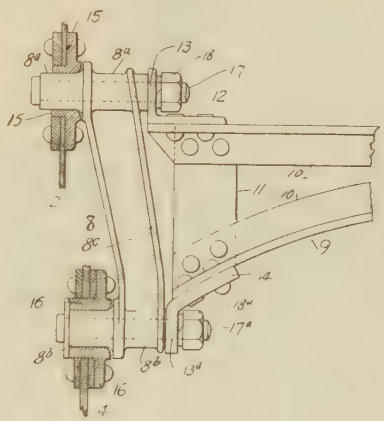
1. A feed roll guard for edging machines having upper swingable rolls, comprising an apron hingedly supported upon the upper roll arms in front of the roll.

1,415,811. APPARATUS FOR CLEANING AND SEPARATING SEEDS, GRAIN, AND THE LIKE. FREDERICK M. DOSSOR, Doncaster, England. Filed Oct. 4, 1920. Serial No. 414,645. 3 Claims. (Cl. 130—15.)



1. A sieve apparatus for cleaning and separating seeds, and the like of the type aforesaid, comprising a frame, escalloped wheels on the frame having rounded or comparatively shallow scallops; pivoted lever arms on the frame carrying a small roller engaging said scallops, pins or trunnions upon the sieves resting in slotted bearings in said arms, gears on the frame and driving chains to impart motion to the sieves.

1,415,812. GRAB BUCKET. JOHN P. DOWD, Cleveland, Ohio, assignor to The Brown Hoisting Machinery Company, Cleveland, Ohio, a Corporation. Filed July 19, 1921. Serial No. 485,819. 3 Claims. (Cl. 37—30.)

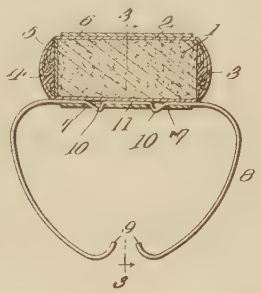


1. In a grab bucket having spades with spade-arms pivotally connected to a cross-head therein, a unitary link-connection between the bucket frame and said spades, comprising the combination of links provided with trunnions at their upper ends, axle bearings for said trunnions on the bucket-frame, means for pivotally connecting the lower ends of said links to said spades, and means for securing said links against lateral movement when the ends of the links are in said bearing and pivoted relations with, respectively, said frame and said spade, said means consisting of a frame-like member between, and removably connected to, said links so placed, all substantially as shown and described.

1,415,813. RAILWAY SIGNAL TORPEDO. FRANK DUTCHER, Versailles, Pa., assignor to Central Railway Signal Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed May 26, 1921. Serial No. 472,626. 7 Claims. (Cl. 246—487.)

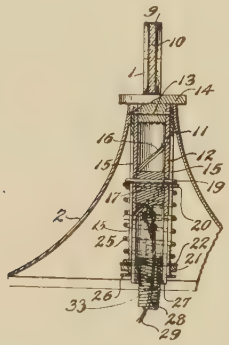
1. A railway signal torpedo comprising an explosive carried within an open ended case provided with open-

ings in its side, a rail-engaging member provided with depressed portions carried within the case and extending



outwardly through its open ends, the openings in the case and the depressed portions of the rail-engaging member registering for the purpose described.

1,415,814. VEHICLE SIGNAL DEVICE. IVAN DYER, Indianapolis, Ind. Filed Apr. 12, 1921. Serial No. 460,702. 10 Claims. (Cl. 116—46.)

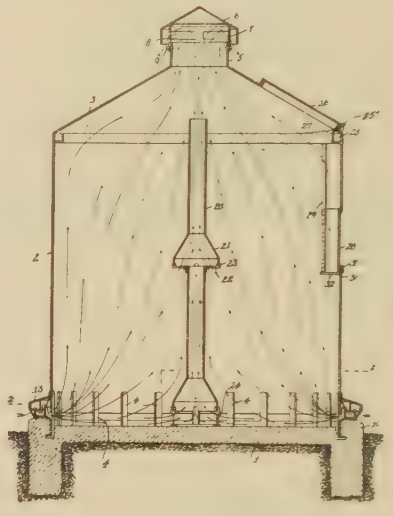


1. A signal comprising a relatively stationary supporting member, a rotary member journaled in said stationary member and having a spiral slot in the wall thereof, a signal arm carried by said rotary member and means for shifting said signal arm as an incident to actuation of the rotary member comprising a part relatively movable with respect to said rotary member and including a pin extending through the slot thereof, said pin engaging with the relatively stationary member and being guided thereby.

1,415,815. DOOR. CLARENCE W. EALY, Black Lick, Ohio. Filed Apr. 23, 1920. Serial No. 376,119. 1 Claim. (Cl. 20—16.)

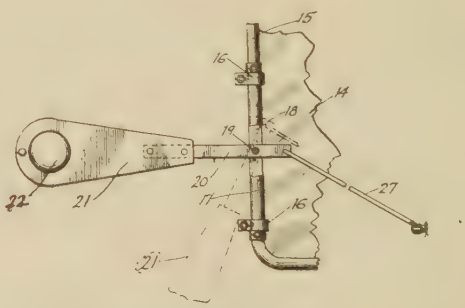
A device of the character set forth comprising a door proper mounted for swinging movement in a doorframe and having its lower end spaced from the lower end of the doorframe to permit the door to swing freely when foreign matter extends above the lower end of the frame, a closure strip hinged to the lower edge of the door and when in one position adapted to close the space between the lower edge of the door and the frame, and a flexible element having its ends secured to opposite faces of the strip and passing freely through the door to permit the raising and lowering of the strip from either side of the door.

1,415,816. GRAIN BIN. FRANCIS R. EDWARDS, Jacksonville, Fla. Filed Aug. 20, 1920. Serial No. 404,870. 11 Claims. (Cl. 98—26.)



11. A bin having walls and ventilating openings at the top and bottom thereof, a fumigant trough formed along the walls within the bin, means by which fumigant may be introduced from without into the trough, means for closing the top openings, and means for closing the bottom openings when the contents of the bin are to be fumigated.

1,415,817. TRAFFIC SIGNAL FOR MOTOR VEHICLES. FRANCIS M. ELLIOTT, Gardena, Calif. Filed Dec. 22, 1921. Serial No. 524,144. 7 Claims. (Cl. 116—52.)

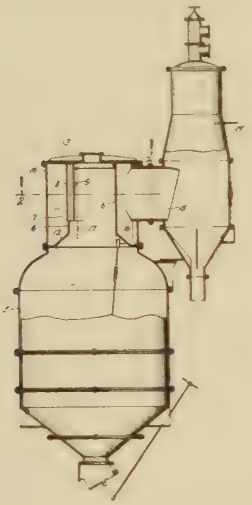


1. The combination with a motor vehicle, its windshield and steering post, of a slotted support detachably connected to the windshield frame, a collar detachably applied to the steering post, a signaling arm pivotally mounted in said slotted support, an actuating lever fulcrumed on the support on the steering post, and an operating connection between said lever and the signaling arm.

1,415,818. SACCHARINE TRAP. GODFREY ENGEL, Sr., Brooklyn, N. Y., assignor to Buffalo Foundry & Machine Co., Buffalo, N. Y., a Corporation of New York. Filed Nov. 3, 1919. Serial No. 335,303. 3 Claims. (Cl. 127—18.)

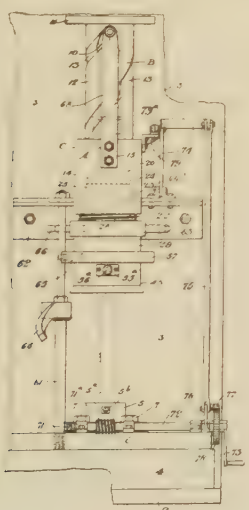
1. A saccharine trap having a conduit for the flow of vapor in a substantially horizontal plane constructed to

produce a change in direction in the flow of vapor and having an entrainment collecting chamber open thereto at the point of such change in direction but partly below the direct path of vapor flow therethrough and an entrainment trapping pocket on an outer wall of the conduit substantially at the point of change in direction of the vapor flow to thereby catch the heavier particles



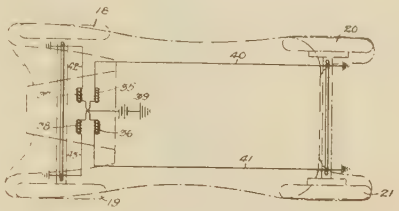
thereon outward by centrifugal force from the vapor by the change in direction of movement and extending from the horizontal plane of direct vapor flow down into the entrainment collecting chamber to thereby catch the heavier entrainment carried by the vapor and thrown outwardly by centrifugal force and to hold the same at one side of the vapor path and conduct it directly down into the entrainment collecting chamber.

1,415,819. FLUTING MACHINE. WILLIAM G. ESTEP, Duquesne, ALFRED E. HAMILTON and ELMER L. SIMONSON, Homestead, Pa. Filed Dec. 18, 1920. Serial No. 431,677. 12 Claims. (Cl. 90—43.)



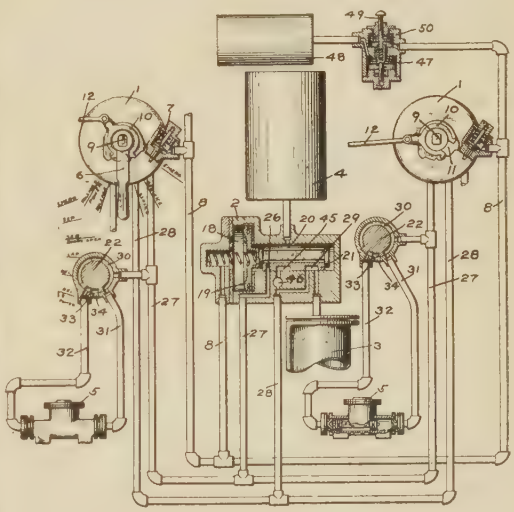
1. A fluting machine comprising a base, a work holding chuck on said base, a vertically movable tool head, said tool head being arranged to reciprocate above said chuck, tool holders carried by said head, and means for automatically adjusting said tool holders transversely of said head on each upward stroke thereof.

1,415,820. FLAT-TIRE INDICATOR. THOMAS M. EYNON, Philadelphia, Pa., assignor to Margaret Y. Eynon, Philadelphia, Pa. Filed Dec. 18, 1918. Serial No. 267,396. 6 Claims. (Cl. 177—311.)



1. In an automobile flat tire indicator, front and rear means at each side of the automobile for closing electrical contacts with depression of that side of the automobile, a plurality of indicators having contrasting indicia to signify depression of opposite sides of the automobile at the front or back, and independent connections including a battery and a plurality of electromagnets for throwing the indicators to show similar indications when the entire side is depressed and contrasting indications when one end only is depressed on one side thereof.

1,415,821. CAR DOOR AND BRAKE CONTROLLING DEVICE. CLYDE C. FARMER, Edgewood, Pa., asignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Apr. 2, 1920. Serial No. 370,636. 14 Claims. (Cl. 303—6.)



1. In a safety car control equipment, the combination with a brake valve device for controlling the car brakes having an operating handle, of means for controlling the car doors and a treadle operatively connected to said handle for also operating said brake valve device and for controlling said means.

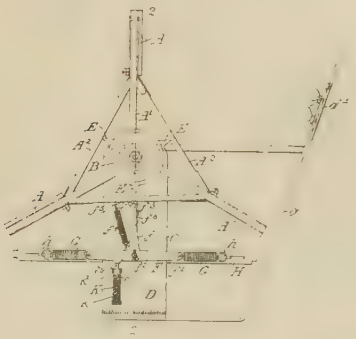
1,415,822. SCREW DRIVER. THOMAS J. FEGLEY and WALTER S. SNYDER, Philadelphia, Pa., assignors to North Bro's. M'f'g. Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 22, 1920. Serial No. 383,506. 3 Claims. (Cl. 145—53.)

1. The combination in a push screw driver, of a spindle; a nut arranged to turn the handle; a cylinder having a spiral groove therein with which the threads of the nut

engage; a spiral spring arranged to retract the handle after it has been pushed forward to turn the spindle;

and a yielding coupling piece slotted to engage the spindle and connected to the handle so as to turn therewith.

1,415,823. TARGET FOR SMALL-ARMS PRACTICE. CECIL FENTON, Brocton, England. Filed July 7, 1920. Serial No. 394,589. 4 Claims. (Cl. 124—15.)

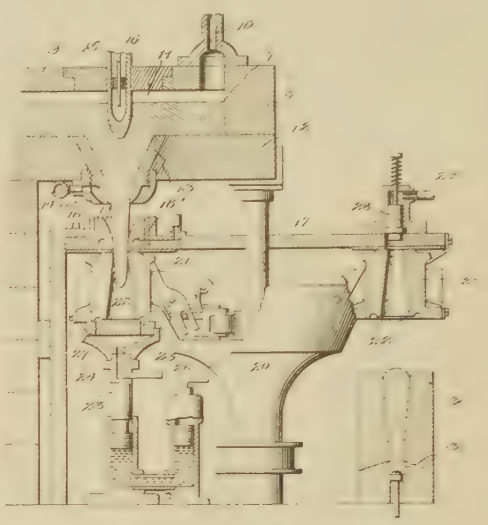


1. A target for small arms practice, comprising a plurality of target plates, a structure mounted upon a pivot axis and carrying such plates, and means which ensure that when one of the plates is in position and is struck by a bullet, the structure is caused to turn through such an angle only that the next following plate is brought into position, the first mentioned target plate passing out of sight.

1,415,824. METHOD OF TREATING AND WORKING GLASS. ENOCH THEODORE FERNGREN, Beaver, Pa. Filed Jan. 24, 1914. Serial No. 814,066. 32 Claims. (Cl. 49—77.)

20. The method of manipulating glass, which consists in depositing, by gravity, a body of glass into a shaping mold with sufficient force to cause a portion of said body to fill the neck mold, and leaving the remainder in condition to be blown.

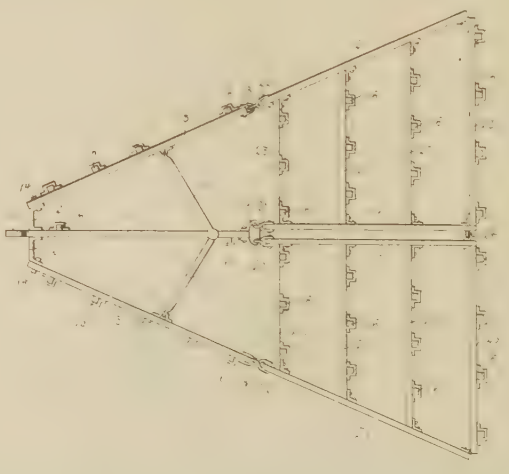
29. The method of feeding glass to molds which consists in flowing a stream of glass into and through a zone of active radiant combustion and a heated shearing medium and periodically cutting mold charges from the stream as it emerges from said radiant zone, and varying the amount of flow by the adjustment of a clinging, medium toward and from said stream.



30. The method of delivering glass to a hollow receptacle which consists in passing molten glass through the bore of a heated member into the adjoining hollow cavity of the receptacle, severing the glass between the receptacle and the heated member and lubricating the surface of the bore in the heated member by depositing finely divided carbon on the exterior of the surface portions of the said member.

31. The method of forming mold charges which consists in flowing a stream of glass freely through a surrounding heat delivering flame and a heated shearing medium towards a series of molds successively elevating towards said stream and shearing medium, and successively severing mold charges at said shearing medium without obstructing the downward movement of the remaining portion of said stream thereby.

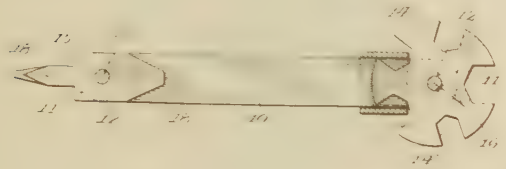
1,415,825. HARROW. GEORGE W. FERRELL, Appleton, Tenn. Filed Aug. 3, 1920. Serial No. 400,958. 3 Claims. (Cl. 55—32.)



3. In a harrow, the combination of a forward section having diverging side members, coacting rear sections each having confronting side members in parallel relation and outer diverging side members in longitudinal aline-

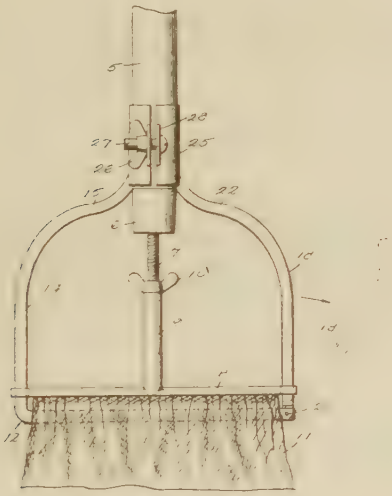
ment with the diverging members of the forward section, means for flexibly coupling said rear sections together, and means for flexibly coupling the rear sections to the forward section.

1,415,826. WRENCH. CAREY C. FINKHOUSEN, Wren, Ohio. Filed Jan. 4, 1922. Serial No. 526,948. 2 Claims. (Cl. 81—119.)



1. A tool including a shank, a member rotatable in one end of the shank and having a plurality of notches in its periphery with the outer ends of the portions intermediate the notches of substantially equal width, and a collar slidable on the shank and arranged to enter two adjacent notches of the rotatable member to embrace one of said intermediate portions.

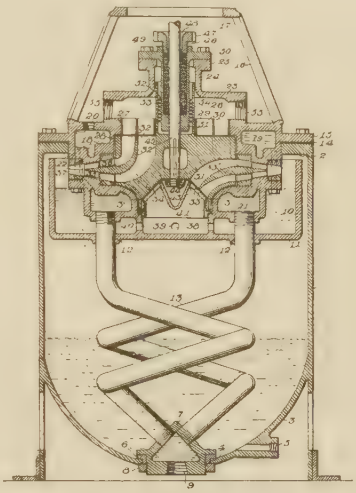
1,415,827. MOP HANDLE. EARL FINLEY, Detroit, Mich. Filed July 20, 1921. Serial No. 486,207. 1 Claim. (Cl. 15—153.)



A mop comprising a handle, a pair of side bars having their rear portions formed with bends defining attaching members, the forward end of the handle being provided with recesses receiving said attaching members, means to permanently secure one of said attaching members within one of said recesses, a split locking sleeve slidable on said handle and adapted for engaging said attaching members, the forward end of said locking sleeve being provided with oppositely arranged slots adapted to receive the bent portions of said side bars, radially projecting ears formed on said sleeve, fastening means extending through said ears to hold said sleeve in gripping engagement with said attaching members and said handle, and a cross bar having connection with said side bars, one of said side bars being pivoted to said cross bar.

1,415,828. REFRIGERATING APPARATUS. ERNEST F. FISHER, Essington, Pa. Filed Oct. 8, 1919. Serial No. 329,242. 3 Claims. (Cl. 230—14.)

1. In a refrigerating apparatus, a vessel provided centrally with a chamber formed between apertured walls rising from the bottom of said vessel, a portion of said walls spreading laterally and enlarged and hollow to form a peripheral chamber for a cooling liquid, a member having an inlet and secured to the peripheral portion of said walls and hollow to provide a chamber for a cooling liquid and connecting with the chamber in said walls, a member provided with outwardly tapering nozzles interposed between said walls and said member, and a unit revolv-



able in alignment with said nozzles and positioned between said walls and said member, and having alternately positioned channels adapted to convey a gas from the inlet in said member, and to convey a liquid from said first chamber, and to discharge said gas and liquid in alternately positioned quantities into the respective nozzles of said interposed member.

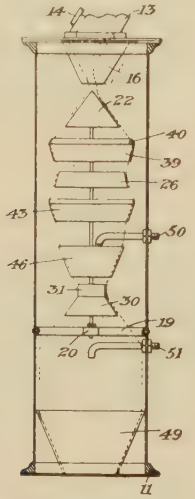
1,415,829. THERMOSTATIC CIRCUIT CLOSER FOR LAUNDRY IRONS. ARTHUR ERNEST FITZGERALD, Wellington, New Zealand. Filed July 16, 1919. Serial No. 311,287. 3 Claims. (Cl. 200—137.)

1. In an electric laundry iron, a coiled operating member forming part of the circuit by which the iron is heated, a well of non-conducting and heat-resisting material containing said coiled member, a contact secured to the inner end of said coil, a bracket secured on and insulated from the base of said iron, a contact mounted on said bracket and adapted to be engaged by the contact on said coiled member, and means engaging the outer end of the coiled member for adjusting it within said well.

1,415,830. AGITATOR. MICHAEL M. FREDEL and WILLIAM BOSANKO, Brooklyn, N. Y. Filed Jan. 6, 1922. Serial No. 527,475. 4 Claims. (Cl. 259—4.)

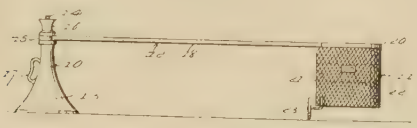
1. An agitator in which the material to be treated is caused to assume a hollow completely closed wall formation, comprising a delivery hopper, a plurality of conical

deflectors over which the maetrial passes, a plurality of conical deflectors through which the material passes, and



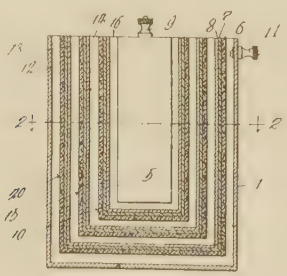
an inturned flange providing an inner curved surface associated with one of the said deflectors through which the material passes.

1,415,831. INFANT'S MERRY-GO-ROUND. HARRY A. FREDERICKS, Port Angeles, Wash. Filed Feb. 10, 1920. Serial No. 357,498. 1 Claim. (Cl. 46—27.)



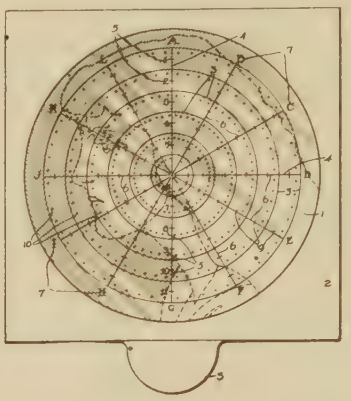
An infant's perambulator consisting of an anchoring standard formed with a weighted base adapted by reason of its weight to maintain itself in position wherever placed on a flat surface, the said standard being provided with a hand grip to permit its removal and being also provided with an up-standing spindle on its top, a radius frame formed at one end with an eye engaging said spindle and adapted for turning movement thereon, a cap nut threadingly engaged with the spindle to prevent movement of the radius rod upwardly in a vertical plane, the top of the standard preventing such movement of the frame downwardly, and a wheel supported car connected at the outer end of the radius frame.

1,415,832. BATTERY. FRANK GARACA, Cleveland, Ohio. Filed Oct. 15, 1918. Serial No. 258,164. 6 Claims. (Cl. 204—54.)



1. A battery of the class described comprising a metal casing containing water, and means therein whereby electricity is generated in said battery on the application of heat to the casing.

1,415,833. PERSPECTOSCOPE. HENRIETTA GINSBURG, El Paso, Tex. Filed Jan. 5, 1921. Serial No. 435,203. 2 Claims. (Cl. 33—1.)

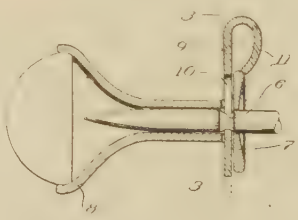


1. A device of the character stated comprising, a transparent member having a series of concentrically arranged circular lines thereon, and having radially disposed lines intersecting said circular lines and having marks indicating radial directions arranged on the circular lines between the radial lines, said device adapted to be used in connection with a sheet of drawing material similarly marked.

1,415,834. LOOSE-LEAF BINDER. LLOYD E. GOODYEAR, Cedar Rapids, Iowa. Filed Dec. 16, 1918. Serial No. 267,071. 2 Claims. (Cl. 129—24.)

2. In a loose leaf binder, a supporting tablet, catch plates forming bearings secured to the tablet, and a leaf holder comprising a spring shaft mounted in the bearings and provided with a pair of terminal arches whose free ends are adapted to releasably engage the catch plates, the arches being released by twisting one of them to spring the shaft and disengage the arch and sliding the shaft to disengage the other prong.

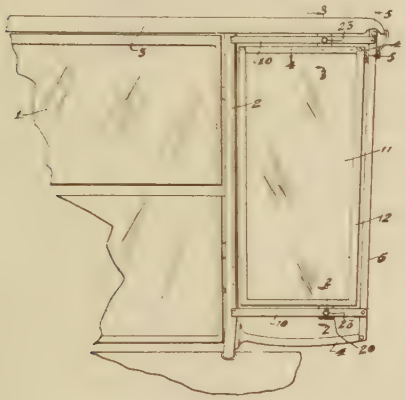
1,415,835. PIN-POINT PROTECTOR. JAMES C. GORDON, Calgary, Alberta, Canada. Filed Sept. 6, 1921. Serial No. 498,782. 2 Claims. (Cl. 24—155.)



1. A hat pin having an annular depression adjacent to its pointed end and a protector for the point of the pin, including a socket member in which the said point is received, said socket having its outer end provided with a flange and having a transverse opening therethrough inward of the flange, a plate slidable through the opening having a key-hole slot therethrough whereby, when the plate is brought to one position the pin may be inserted through the enlarged passage thereof to enter the socket and when brought to another position the walls of the restricted passage in the key-hole slot of the plate will engage the shoulders provided by the annular depression

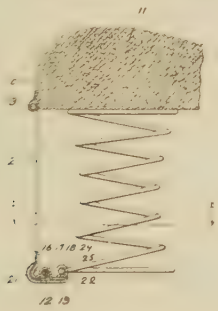
in the pin, and said plate having on one of its ends an inwardly rounded spring lip designed, when the plate is in its last mentioned position to rest on the outer edge of the flange to hold the said plate in pin locking position.

1,415,836. WIND DEFLECTOR. JOSEPH P. GRAY, Los Angeles, Calif. Filed June 11, 1920. Serial No. 388,161. 3 Claims. (Cl. 296—84.)



1. The combination with a windshield, of supporting means extending from said windshield, a frame, a wind deflector received in said frame, rods extending along the upper and lower ends of said frame, pivot pins projecting from said rods beyond the upper and lower edges of said deflector intermediate of its side edges, bearing lugs comprising a bearing portion adapted to receive said pins, a U-shaped clamping member projecting forwardly from said bearing portion, and adapted to fit said supports, a stud in said U-shaped member adapted to hold said clamping member to said supports.

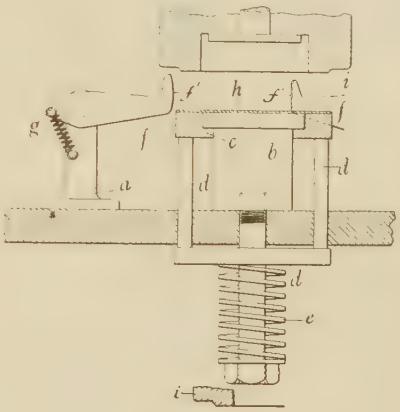
1,415,837. SEAT SPRING. CHARLES F. GREEN, Defiance, Ohio, assignor to Industrial Research Corporation, Toledo, Ohio, a Corporation of Delaware. Filed Nov. 18, 1918. Serial No. 262,991. 11 Claims. (Cl. 155—180.)



1. In a device of the class described, a cushion having a skirt portion, a spring unit having a base frame adapted to be positioned within said skirt, and a supporting frame comprising a plurality of plates encircling said base frame and clamping said skirt therebetween, one of said plates being provided with integral members adapted to engage the base frame and retain the same in position relative to the skirt.

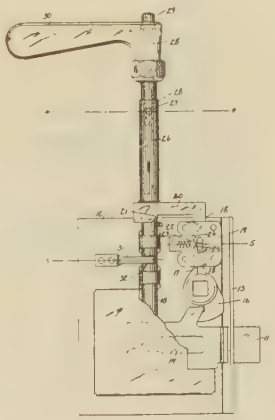
1,415,838. PRESS FOR OPERATING ON METAL SHEETS. HARRY ALBERT GRIFFITHS, Birmingham, and RICHARD HANSON GRIFFITHS, Sutton Coldfield, England. Filed Aug. 23, 1921. Serial No. 494,534. 6 Claims. (Cl. 113—38.)

1. In presses for operating on metal sheets or blanks, the combination with a fixed tool, of a stop pivotally mounted alongside of the said tool and having a stop portion extending into close proximity to the edge of said tool, means for automatically moving the stop to a position where the stop portion projects beyond the operative



surface of said tool, and a second tool movable toward and away from the fixed tool and engageable with said stop portion for gradually moving the latter over the edge of the fixed tool when the movable tool is moving toward said fixed tool.

1,415,839. LATCH FOR VEHICLE DOORS. RICHARD V. KAIMER, New Haven, Conn., and CHARLES E. RITTER, Chicago, Ill., assignors to The English & Mersick Co., New Haven, Conn., a Corporation. Filed May 17, 1921. Serial No. 470,366. 3 Claims. (Cl. 292—169.)

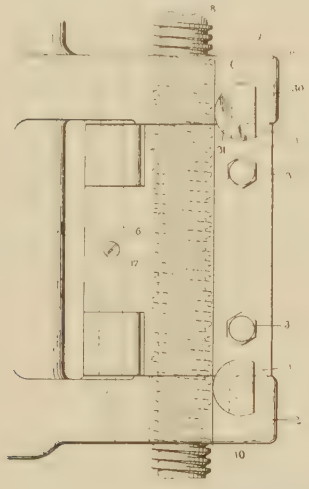


1. In a latch for vehicle doors, the combination with a latch-bolt of a vertically-arranged rotatable spindle for moving the same, a roll-back by which the latch-bolt may be moved, said roll-back formed with a stop, a vertically-movable bolt adapted to be projected into the path of said stop, and means operated by the turning of said spindle for lifting said bolt.

1,415,840. SECTIONAL INSPECTIVE NUT. DAVID C. KLAUSMEYER, Cincinnati, Ohio, assignor to The Cincinnati Bickford Tool Company, Cincinnati, Ohio, a Corporation of Ohio. Filed July 8, 1921. Serial No. 483,231. 8 Claims. (Cl. 74—40.)

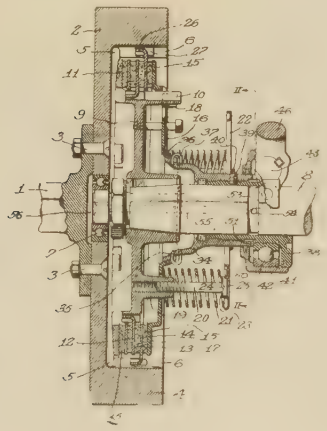
1. A machine-tool combining an upwardly movable frame-element; a lifting-screw therefor; a nut operating

in conjunction with said screw, said nut being constructed of two separable sections; and means for preventing the



one section from being withdrawn from said screw without first locking the other section against withdrawal.

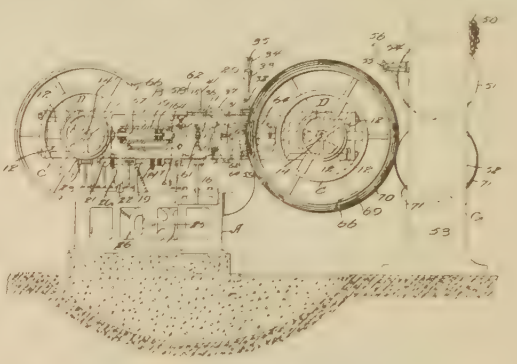
1,415,841. DISK CLUTCH. CHARLES G. SEITZ, Detroit, Mich. Filed Sept. 24, 1920. Serial No. 412,453. 14 Claims. (Cl. 192—69.)



4. A friction disk for clutches consisting of an annular body of sheet metal having a radially projecting lug, a portion of the lug being bent at an angle to the body, and another portion bent to form a wing lying at right angles to the plane of the lug.

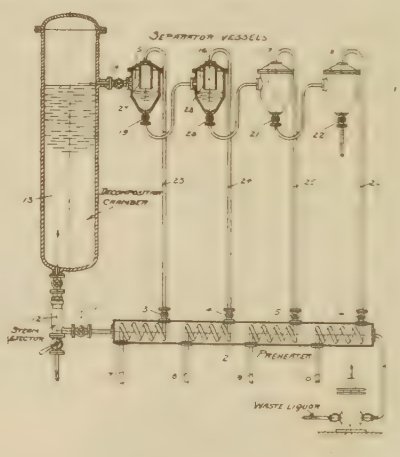
1,415,842. APPARATUS FOR BUILDING TIRES OF THE SOLID TYPE. ROBERT W. SNYDER, Akron, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed Oct. 3, 1918. Serial No. 256,689. 12 Claims. (Cl. 154—9.)

1. The combination with a calender for forming a strip of material, of mechanism for winding the strip therefrom upon tire rims comprising, means adapted to support a plurality of rims for rotational movement thereon, said means being operable to revolve the rims about a common



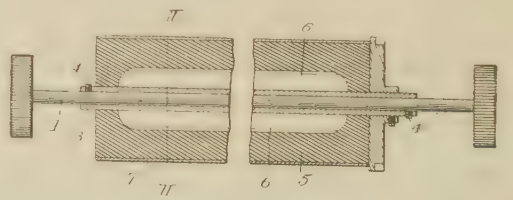
horizontal axis to successively effect rotation of each rim through movement of a roll of the calender.

1,415,843. CONTINUOUS PROCESS OF DECOMPOSING WASTE SULPHITE LIQUOR. KRISTOFFER MÖRCH, Christiania, Norway. Filed May 10, 1920. Serial No. 380,413. 11 Claims. (Cl. 252.)



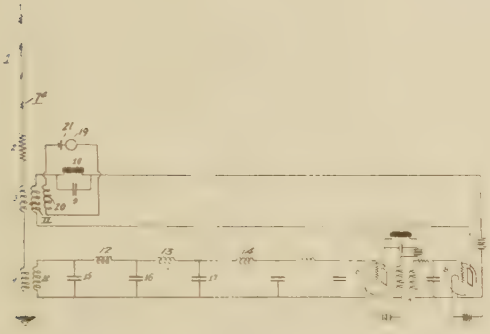
1. The process of decomposing waste sulphite liquor which comprises continuously leading waste sulphite liquor through a container and regulating the temperature and pressure in said container so as to cause decomposition of the said liquor when passing through the said container.

1,415,844. NOISE-REDUCING TYPEWRITER PLATEN. WILLIAM REDFORD MULOCK, Winnipeg, Manitoba, Canada. Filed Sept. 3, 1921. Serial No. 498,270. 6 Claims. (Cl. 197—147.)



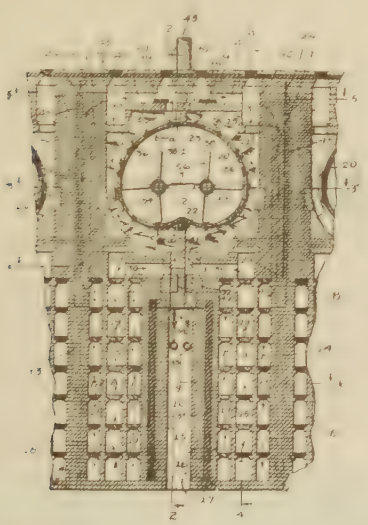
1. In a typewriter platen, the combination with a supporting member, of a thin surface member of hard material, and a soft rubber core extending from said supporting member to said surface member.

1,415,845. SELECTIVELY OPPOSING IMPEDANCE TO RECEIVED ELECTRICAL OSCILLATIONS. MICHAEL I. PUPIN, Norfolk, Conn., and EDWIN H. ARMSTRONG, Yonkers, N. Y. Filed Feb. 10, 1916. Serial No. 77,437. Renewed Nov. 6, 1920. Serial No. 422,365. 7 Claims. (Cl. 250—20.)



5. A receiving conductor offering high initial resistance to received electrical wave energy, a resistance compensator in energy-transferring relation thereto and excited by wave energy received thereby, and means for delaying the compensating action for a time sufficient substantially to prevent its full development with respect to received electrical disturbances of short duration.

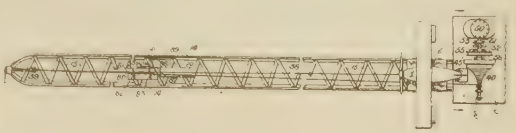
1,415,846. FURNACE-RETORT. CHARLES HOWARD SMITH, Short Hills, N. J., assignor to International Coal Products Corporation, Richmond, Va., a Corporation of Virginia. Filed May 9, 1918. Serial No. 233,422. 10 Claims. (Cl. 202—9.)



1. A furnace-retort provided with a paddle shaft extending longitudinally of and operating in a longitudinally extending retort chamber provided with a combustion chamber divided by vertical transversely extending partitions, and by a vertical longitudinally extending partition along the lower portion of the retort so as to provide combustion flues.

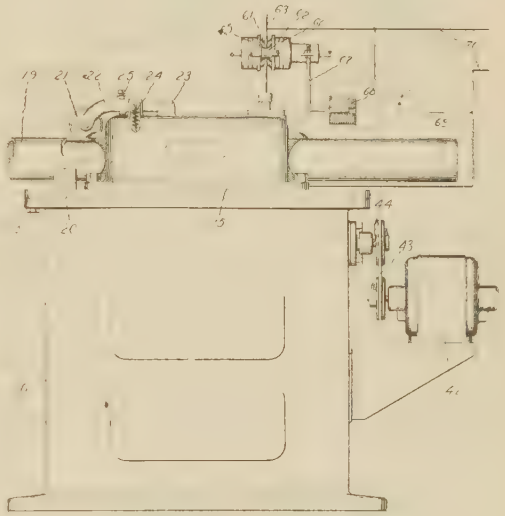
1,415,847. LAUNCHING MECHANISM FOR AEROPLANES. ELMER A. SPERRY, Brooklyn, N. Y. Filed Aug. 8, 1918. Serial No. 248,834. 18 Claims. (Cl. 244—2.)

1. In a launching device for aeroplanes, the combination with a car, means for detachably securing the aeroplane to the car, a fly wheel, means for driving the same, a normally stationary cable coupled to said car, a cable



drum and a clutch connecting said drum and fly wheel for accelerating the drum and car.

1,415,848. TUBE-WELDING MACHINE. JOHN W. WHITE, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a Corporation of Delaware. Filed Aug. 25, 1920. Serial No. 406,019. 15 Claims. (Cl. 219—6.)



1. In tube welding apparatus the combination of a base having a lubricant reservoir in the upper portion thereof, a table secured to the base above said reservoir, a plurality of rolls mounted upon said table, and driving means for said rolls carried by said table and arranged in said reservoir.

1,415,849. METHOD OF PRODUCING GELLING METAL ALGINATES AND PRODUCT DERIVED THEREFROM. BERNARD F. ERDAHL, Duluth, Minn. Filed Sept. 30, 1920. Serial No. 413,932. 25 Claims. (Cl. 252.)

1. The method of producing a gelling metal-alginate comprising treating a metal compound with sodium alginate eliminating the impurities from the reaction-product, and thereafter adding a substance capable of transforming the reaction-product into a colloidal alginate-metal-gel, all the reactions being performed in the cold.

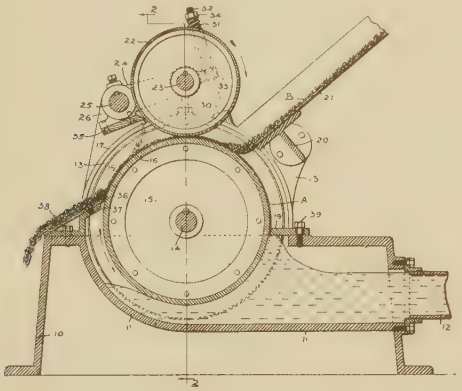
1,415,850. ALGINATE COMPOSITION AND ARTICLE. BERNARD FEZLING ERDAHL, Duluth, Minn. Filed Dec. 5, 1921. Serial No. 520,017. 31 Claims. (Cl. 106—39.)

1. As a new composition of matter, a cellular or pervious material carrying a filling or film resulting from treatment with a colloidal-alginate-gel.

1,415,851. METHOD AND MEANS FOR MIXING LIQUIDS WITH DRY MATERIAL. THORWALD B. PETERSON, Plattsmouth, Nebr., assignor to Lee C. Sharp, Plattsmouth, Nebr. Filed Aug. 19, 1921. Serial No. 493,607. 8 Claims. (Cl. 99—2.)

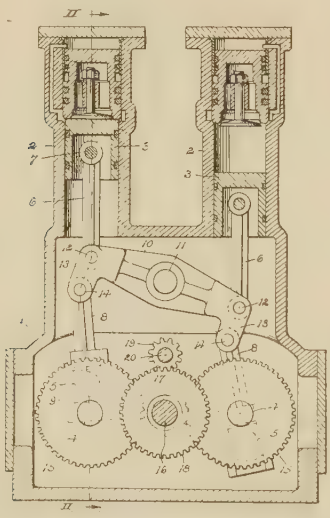
7. Mechanism for mixing a liquid with pulverulent material, comprising in combination a horizontal rotating

cylinder having a smooth peripheral surface, a liquid receptacle into which said cylinder dips whereby to receive upon the surface thereof a coating of the liquid, a stationary member positioned adjacent to the ascending side of the cylinder to strike from the surface the excess of liquid and gage to uniformity the thickness of the coating upon the surface, means for applying dry material at the upper portion of the cylinder, and means at the descending side of the cylinder for striking all of the material therefrom.



8. The method of mixing a liquid with pulverulent material, consisting in applying a uniform coating of the liquid to a portion of a smooth endless continuously moving surface, then applying a layer of the pulverulent material over a successive portion of the liquid-coated surface, and finally dislodging all of the material from the surface at a further successive portion thereof.

1,415,852. FLUID COMPRESSOR. CHARLES B. VAN HORN, Detroit, Mich. Filed June 30, 1919. Serial No. 307,609. 7 Claims. (Cl. 230—27.)



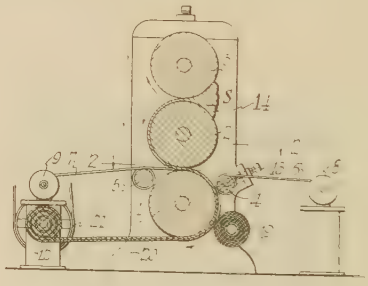
5. The combination of a pair of vertically disposed cylinders spaced apart and in parallel relation, pistons in said cylinders, cranks for operating the pistons, a connecting rod and a pitman for connecting each crank with its piston, and a rocker bar pivotally supported intermediate its ends and to the ends of which the adjacent ends of the rods and pitmen are pivotally attached, the axis of the pivotal attachment of the connecting rods to the ends of said rocker bar being in the plane of the axis of the pivotal support of said bar and the plane of the axis of the pivotal attachment of the pitmen to said bar, being below and at a distance from said plane passing through the axis of the pivotal support of said bar.

REISSUES.

15,348. CLOCK. JOSEPH F. DUNN, New York, N. Y. Filed Feb. 27, 1922. Serial No. 539,808. Original No. 1,270,706, dated June 25, 1918, Serial No. 855,619, filed Aug. 7, 1914. 4 Claims. (Cl. 58—16.)

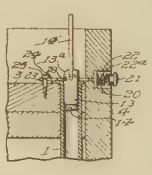
4. In an alarm clock, an alarm setting and releasing mechanism, an alarm dial, an alarm hour indicator, an alarm minute indicator, both concentrically mounted on the alarm dial, and means for causing the minute indicator to move in time relation with the setting of the hour indicator at a speed of twelve revolutions to one.

15,349. APPARATUS FOR MAKING STRAND FABRIC. WILLIAM JAMESON, Springfield, Mass., assignor to The Fisk Rubber Company, Chicopee Falls, Mass., a Corporation of Massachusetts. Filed Jan. 7, 1922. Serial No. 527,774. Original No. 1,327,826, dated Jan. 13, 1920, Serial No. 268,633, filed Dec. 28, 1918. 10 Claims. (Cl. 154—1.)



5. In an apparatus of the character indicated, in combination, a pair of contiguous rolls coacting to work out a sheet of rubber between them, a grooved roller constructed and arranged to contact with the freshly-worked sheet to guide thereagainst a series of parallel strands, and means to force the strands into the freshly-worked sheet.

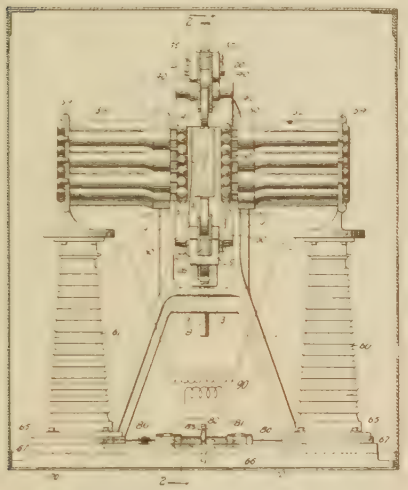
15,350. DROP-COVER CHECK. GEORGE E. RUDNICK, Boston, Mass., assignor to Victor Talking Machine Company, Camden, N. J., a Corporation of New Jersey. Filed Mar. 13, 1922. Serial No. 543,512. Original No. 1,333,939, dated Mar. 16, 1920, Serial No. 283,320, filed Mar. 18, 1919. 10 Claims. (Cl. 217—60.)



1. Means for checking the closing movement of a cabinet cover comprising a cylinder having a valve, a plunger

in the cylinder, a catch to engage the plunger and hold it in outward position, and a supporting member connecting the plunger with the cover.

15,351. APPARATUS FOR TREATING ARTICLES BY DISRUPTIVE CONDUCTION. FRANKLIN S. SMITH, Philadelphia, Pa. Filed Apr. 6, 1922. Serial No. 550,857. Original No. 1,399,161, dated Dec. 6, 1921, Serial No. 285,485, filed Mar. 27, 1919. 4 Claims. (Cl. 175—311.)



1. In an apparatus of the character described, the combination of a plurality of sets of elastors and electrodes supported in opposing relation with respect to each other, posts for supporting each set of elastors, means for connecting the opposing posts supporting the said elastors, means for simultaneously adjusting the said opposing posts toward or from each other, an endless conveyer for conveying articles to be treated between the said opposing sets of electrodes, said conveyer comprising portions which are arranged in parallel relation with respect to each other, said portions being situated intermediate the said electrodes, and means for moving one of said portions toward or from the other to vary the distance between the same.

15,352. SHINGLE. EDWARD R. SNYDER, East Orange, N. J., assignor to The Barrett Company, a Corporation of New Jersey. Filed Mar. 13, 1922. Serial No. 543,509. Original No. 1,365,800, dated Jan. 18, 1921, Serial No. 244,209, filed July 10, 1918. 15 Claims. (Cl. 108—8.)

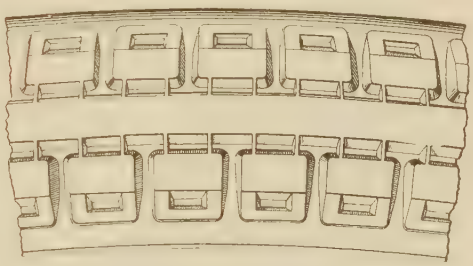
1. A shingle of the class described having one end only covered on one side with a wear-resisting material, and covered on the other side of the same end with a different sort of wear-resisting material.

DESIGNS.

60,932. TOY. JOSEPH G. BECKER, Pittsburgh, Pa. Filed Feb. 7, 1921. Serial No. 443,276. Term of patent 3½ years.

The ornamental design for a toy as shown.

60,933. PNEUMATIC-TIRE TREAD. HARRY S. BERLIN, Springfield, Ohio, assignor to The Victor Rubber Company, Springfield, Ohio, a Corporation of Ohio. Filed Sept. 26, 1921. Serial No. 503,404. Term of patent 14 years.



The ornamental design for a pneumatic tire tread, as shown.

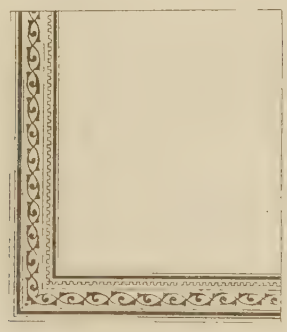
60,934. FLAG OF THE ETHIOPIAN RACE. JAMES CANNON, Long Branch, N. J. Filed Aug. 21, 1920. Serial No. 405,176. Term of patent 14 years.

The ornamental design for a flag of the Ethiopian race, as shown.

60,935. LACE. JOHN DRAYCOTT, Pawtucket, R. I., assignor to Richmond Lace Works, Alton, R. I., a Corporation of Maine. Filed Jan. 30, 1922. Serial No. 446. Term of patent 3½ years.

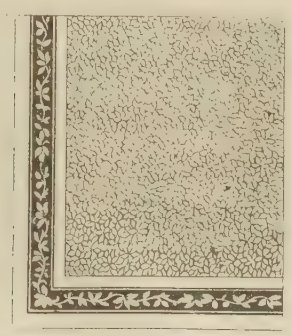
The ornamental design for lace, as shown.

60,936. RUG. GUSTAVE M. FAUSER, New York, N. Y., assignor to Model Mills Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 30, 1922. Serial No. 426. Term of patent 7 years.



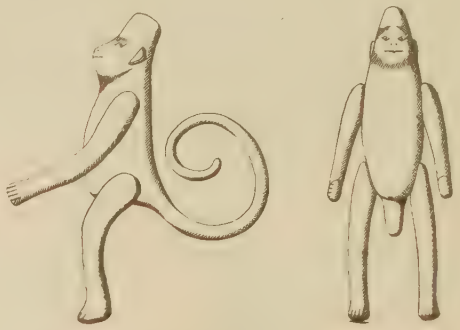
The ornamental design for a rug, as shown.

60,937. RUG. GUSTAVE M. FAUSER, New York, N. Y. assignor to Model Mills Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 30, 1922. Serial No. 427. Term of patent 7 years.



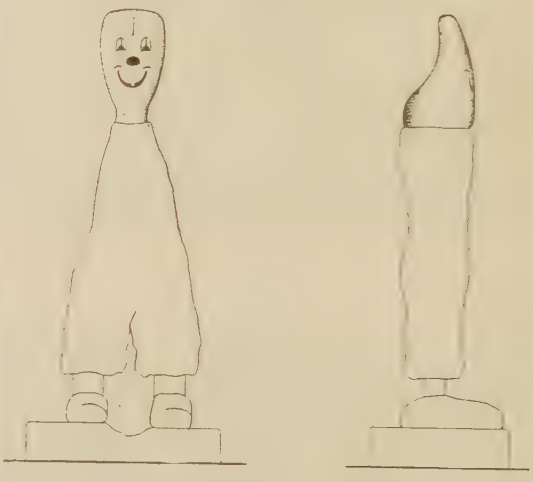
The ornamental design for a rug, as shown.

60,938. TOY. ALFRED GERBENSKY, Okauchee, Wis. Filed Sept. 1, 1921. Serial No. 497,716. Term of patent 14 years.



The ornamental design for a toy as shown and described.

60,939. DOLL. CHARLOTTE GREENHOOD, Berkeley, Calif. Filed Nov. 9, 1921. Serial No. 514,104. Term of patent 3½ years.

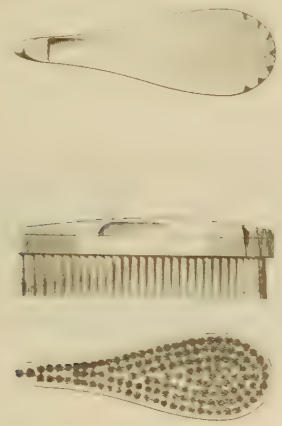


The ornamental design for a doll, as shown.

60,940. DOLL. CHARLOTTE GREENHOOD, Berkeley, Calif. Filed Nov. 9, 1921. Serial No. 514,105. Term of patent 3½ years.

The ornamental design for a doll, as shown.

60,941. BRUSH. ALFRED L. KOHN, New York, N. Y. Filed Dec. 7, 1921. Serial No. 520,755. Term of patent 14 years.

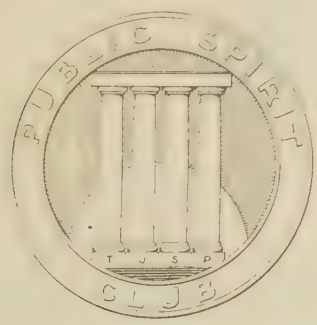


The ornamental design for a brush as described and shown.

60,942. BOY'S SUIT. FRANCES MACKAY, Norwalk, Conn. Filed Oct. 20, 1921. Serial No. 509,181. Term of patent 14 years.

The ornamental design for a boy's suit, as shown.

60,943. EMBLEM, BADGE, BUTTON, PIN, OR ARTICLE OF A SIMILAR NATURE. GEORGE B. MONK, San Francisco, Calif. Filed Dec. 7, 1921. Serial No. 520,751. Term of patent 3½ years.

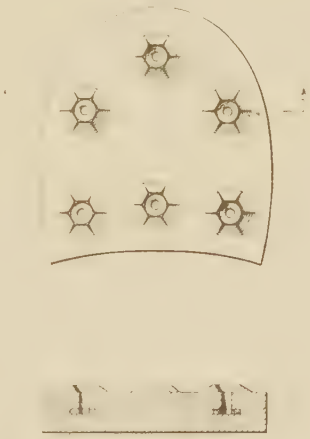


The ornamental design for an emblem, badge, button, pin or article of a similar nature, as shown.

60,944. STREET LAMP. JUSTUS F. NE PAGE, Seattle, Wash. Filed Aug. 5, 1921. Serial No. 490,138. Term of patent 3½ years.

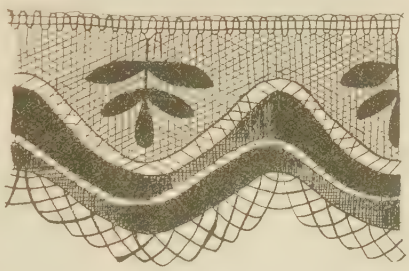
The ornamental design for a street lamp as shown.

60,945. RESILIENT HEEL LIFT. LAURENCE M. OAKLEY, Trenton, N. J., assignor to Essex Rubber Company, Trenton, N. J., a Corporation of New Jersey. Filed Mar. 10, 1921. Serial No. 451,314. Term of patent 14 years.



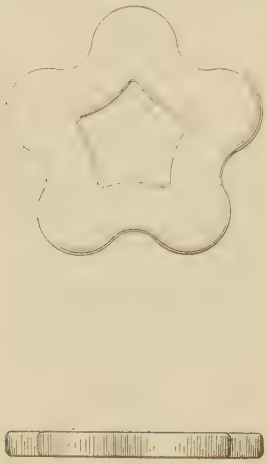
The ornamental design for a resilient heel lift, as shown.

60,946. LACE. SAMUEL H. PAGE, Stratford, Conn., assignor to The American Fabrics Company, a Corporation of Connecticut. Filed Feb. 3, 1922. Serial No. 518. Term of patent 7 years.



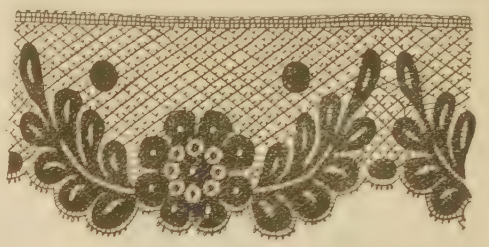
The ornamental design for lace substantially as shown.

60,947. TEETHING RING. JACOB N. PATRICH, New York, N. Y. Filed July 13, 1921. Serial No. 484,499. Term of patent 3½ years.



The ornamental design for a teething ring, substantially as shown.

60,948. LACE. HANS ALBERT PHILIPS, Stratford, Conn., assignor to The American Fabrics Company, a Corporation of Connecticut. Filed Feb. 3, 1922. Serial No. 512. Term of patent 7 years.



The ornamental design for lace substantially as shown.

TRADE-MARKS

OFFICIAL GAZETTE, MAY 9, 1922.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this publication.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 114,670. (CLASS 17. TOBACCO PRODUCTS.) GEO. FEHL BLUE RIBBON CIGAR CO., St. Louis, Mo. Filed Dec. 16, 1918.

BLUE RIBBON

Particular description of goods.—Cigars.
Claims use since Nov. 22, 1875.

Ser. No. 124,556. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) TAYLOR AND ATKINSON, Washington, D. C. Filed Nov. 4, 1919.

The use of the word "Soap" and the printed matter appearing on the banner portion of the mark is hereby formally disclaimed except when used in connection with the other features of the mark.
Particular description of goods.—Soap.
Claims use since July 15, 1919.

Ser. No. 126,803. (CLASS 38. PRINTS AND PUBLICATIONS.) INTERNATIONAL FEDERATION OF TECHNICAL ENGINEERS', ARCHITECTS', AND DRAFTSMEN'S UNIONS, Washington, D. C. Filed Jan. 5, 1920.

The words "Union Label" being disclaimed apart from the mark as shown.
Particular description of goods.—Pamphlets, Books, Circulars, Prints, Drawings, Blue Prints, Tracings, and Specifications.
Claims use since Nov. 21, 1919.

Ser. No. 128,283. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) SIMPLEX AUTOMOBILE COMPANY, INC., New York, N. Y. Filed Feb. 11, 1920.

Particular description of goods.—Automobiles.
Claims use since prior to Jan. 2, 1913.

Ser. No. 128,943. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) GEORGE RINGLER & CO., New York, N. Y. Filed Feb. 26, 1920.

Portaringco

Particular description of goods.—Nonintoxicating Maltless Beverage Containing Less Than One-half of One Per Cent of Alcohol by Volume.
Claims use since December, 1919.

Ser. No. 130,254. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) AARON-FLEISCHER SILK CO., St. Louis, Mo. Filed Mar. 27, 1920.

No exclusive claim being made to the word "Silks" apart from the mark shown. The mark comprises a cross enclosed within spaced concentric circles crosswise upon both members of the cross, as shown, its middle letter "l" being common to both cross members.
Particular description of goods.—Silks, Both in the Piece and in the Bolt.
Claims use since Jan. 1, 1920.

Ser. No. 133,490. (CLASS 38. PRINTS AND PUBLICATIONS.) PALMER PHOTOPLAY CORPORATION, Los Angeles, Calif. Filed June 9, 1920.

PALMER PLAN MESSENGER

PALMER PHOTOPLAY INSTITUTE

The words "Palmer Photoplay Institute Palmer Plan of Photoplay Writing" do not form a part of the registration sought apart from the mark shown in the drawing.
Particular description of goods.—Books, Pamphlets, and Circulars Devoted to Photoplay Information and Instruction in Photoplay Writing.
Claims use since Oct. 10, 1919.

Ser. No. 133,736. (CLASS 39. CLOTHING.) IDEAL BATH ROBE CO., INC., Brooklyn, N. Y. Filed June 15, 1920.

BABIES IDEAL

Consists only of the words "Baby's Ideal," as shown in the drawing.
Particular description of goods.—Infants' Bath Robes.
Claims use since May 10, 1920.

Ser. No. 134,138. (CLASS 40. FANCY GOODS, FURNISHING AND NOTIONS.) MULLER AND PHIPPS (ASIA) LIMITED, New York, N. Y. Filed June 24, 1920.

MOGUL

Particular description of goods.—Hairpins and Safety Pins.
Claims use since May 1, 1917.

Ser. No. 134,475. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KUNKEL & KUNKEL, Madrid, Nebr. Filed July 1, 1920.

Kura-Kut

No claim being made to the word "Kura-Kut" apart from the mark shown in the drawing.
Particular description of goods.—Veterinary Oil Liniment for the Treatment of Open Sores.
Claims use since June 25, 1919.

Ser. No. 134,960. (CLASS 48. MALT BEVERAGES, EXTRACTS, AND LIQUORS.) KLATSCHER & LORENZ, INC., New York, N. Y. Filed July 14, 1920.

Particular description of goods.—Body Sugar for Beer Coloring and Beer Flavoring.
Claims use since Jan. 25, 1920.

Ser. No. 136,314. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) GEBRÜDER SIEMENS & COMPANY, Berlin-Lichtenberg, Germany. Filed Aug. 20, 1920.

Silit

Particular description of goods.—Electrical Conducting Bodies—Namely, Electrodes for Electrolytic Purposes, Stationary Electric Resistances, Electric Regulating or Rheostat Resistances, Electric Starting Resistances, Electric Safety Devices for Protection from Lightning, Electric Heating Elements for Obtaining High Temperatures, and Electric Resistance Materials of Metallic or Non-metallic Nature Adapted to Become Heated by the Passage of Current Therethrough and Made in the Form of Bars, Ribbons, Rings, Rods, Wires, and the Like.
Claims use since about August, 1908.

Ser. No. 136,659. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AKTIENGESELLSCHAFT FÜR CHEMISCHE PRODUKTE VORMALS H. SCHEIDEMANDEL, Berlin, Germany. Filed Aug. 30, 1920.

HUMAGSOLAN

Particular description of goods.—Cosmetics for Promoting the Growth of Human Hair.
Claims use since December 1919.

Ser. No. 137,268. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) PENINSULA PRODUCTS COMPANY, Wilmington, Del. Filed Sept. 16, 1920.

BLUE RIDGE

Particular description of goods.—Ginger Ale.
Claims use since Aug. 10, 1920.

Ser. No. 137,900. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) EDITH E. WILLSON, Washington, D. C. Filed Oct. 4, 1920.

TOM THUMB

Particular description of goods.—Miniature Table, Bed, and Toilet Articles for Children's Dolls.
Claims use since Mar. 1, 1920.

Ser. No. 138,182. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) H. J. WENGLEIN'S NORICA- & HEROLD-WERKE NURNBERG-SCHWABACHER NADELFABRIKEN G. M. B. H., Nuremberg, Germany. Filed Oct. 11, 1920.

Herold

Particular description of goods.—Gramophone Needles.
Claims use since Dec. 17, 1910.

Ser. No. 138,836. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BONOVIN, LIMITED, Liverpool, England. Filed Oct. 27, 1920.

MEDICATED WINE
"BONOVIN"
BRAND

No particular claim being made to the words "Medicated Wine" and "Brand" apart from the remainder of the mark as shown in the drawing.
Particular description of goods.—Medicated Wine Tonic.
Claims use since January, 1900.

Ser. No. 138,847. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE CHROMOL MANUFACTORY OF CHEMICAL PRODUCTS, INC., Vienna, Austria. Filed Oct. 27, 1920.

CHROMOL

"Chromal," as shown in the drawing.
Particular description of goods.—Coloring and Conserving Means in the Nature of a Paint for Leather, Iron, and Wood.
Claims use since Nov. 26, 1914.

Ser. No. 138,908. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LEON HERRGOTT, Paris, France. Filed Oct. 28, 1920.

No trade-mark rights are claimed in the word "Parfumerie" appearing on the drawing.

Particular description of goods.—Perfumery.

Claims use since Apr. 29, 1909.

Ser. No. 138,909. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LEON HERRGOTT, Paris, France. Filed Oct. 28, 1920.

Parfumerie La PERLE

No trade-mark rights are claimed in the word "Parfumerie" appearing on the drawing.

Particular description of goods.—Perfumery.

Claims use since Apr. 29, 1909.

Ser. No. 138,928. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) C. A. STUART, Kansas City, Mo. Filed Oct. 28, 1920.

S. O. S.

Particular description of goods.—Liquid Massage Preparation Used as a Substitute for Alcohol in Rubbing or Massaging Operations and Also a Preparation for a Hair Tonic and Skin Lotion.

Claims use since Oct. 20, 1920.

Ser. No. 140,627. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAR-VELLO REMEDIES CO., Tiffin, Ohio. Filed Dec. 4, 1920.

MAR-VELLO

Particular description of goods.—Antifat Medicines.

Claims use since Nov. 5, 1920.

Ser. No. 140,775. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) LIONEL B. BERESFORD, doing business as Elcaptain Toy and Game Co., Beverly, N. J. Filed Dec. 8, 1920.

EL CAPTAIN

Particular description of goods.—Board Games Played Similarly to Checkers and Used Especially in Playing War Games.

Claims use since about Oct. 6, 1920.

Ser. No. 140,807. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SANOZONE CHEMICAL CO., Philadelphia, Pa. Filed Dec. 8, 1920.

Particular description of goods.—Roach Powder and Scale Solvent.

Claims use since October, 1918.

Ser. No. 142,216. (CLASS 39. CLOTHING.) THE JULIAN & KOKENGE CO., Cincinnati, Ohio. Filed Jan. 13, 1921.

No claim being made to the words "Controls the Arch" aside from the combination with the remainder of the mark as shown.

Particular description of goods.—Men's, Women's, and Children's Shoes of Leather, Fabric ,and Combined Fabric and Leather.

Claims use since Dec. 29, 1920.

Ser. No. 142,268. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PARK LABORATORY COMPANY, San Antonio, Tex. Filed Jan. 14, 1921.

"ABSORBO"

The picture shown in the drawing is fanciful.

Particular description of goods.—Salve for Use in Treatment of Colds, Coughs, Influenza, and Similar Ailments, Burns, Insect Bites, and Boils.

Claims use since Jan. 1, 1895.

Ser. No. 142,286. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WALTER JOHN FERGUSON, New York, N. Y. Filed Jan. 15, 1921.

ALL OFF

Particular description of goods. Depilatories.

Claims use since Dec. 7, 1920.

Ser. No. 142,321. (CLASS 48. MALT BEVERAGES, EXTRACTS, AND LIQUORS.) VAL BLATZ BREWING COMPANY, Milwaukee, Wis. Filed Jan. 17, 1921.

Blatz

Particular description of goods.—Nonalcoholic Near Beer, Beer, and Near Beer Containing Less Than One-Half of One Per Cent of Alcohol, by Volume; Beer and Near Beer Containing One-Half of One Per Cent or More of Alcohol, by Volume; Malt Tonic, Malt Sirup, and Malt Extract.

Claims use since Feb. 9, 1895.

Ser. No. 142,334. (CLASS 39. CLOTHING.) SIGMUND EISNER COMPANY, Red Bank, N. J. Filed Jan. 17, 1921.

No claim is made to the exclusive use of the words "The Redbank Shirt" separate and apart from the drawing.

Particular description of goods.—Men's and Boys' Outer Wearing Negligée and Work Shirts.

Claims use since Oct. 15, 1920.

Ser. No. 142,399. (CLASS 32. FURNITURE AND UPHOLSTERY.) OVINGTON BROS. COMPANY, New York, N. Y. Filed Jan. 18, 1921. Under ten-year proviso.

OVINGTON'S

Particular description of goods.—Tables, Chairs for Household Use, Stands, Desks, Tea Wagons, Stools, Cabinets, Cellarettes, Picture Frames, Hand and Wall Mirrors, and Book Ends.

Claims use since Jan. 1, 1895.

Ser. No. 142,405. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) OVINGTON BROS. CO., New York, N. Y. Filed Jan. 18, 1921. Under ten-year proviso.

OVINGTON'S

Particular description of goods.—Cleaning and Polishing Materials for Jewelry, Metal Ware, and Precious-Metal Ware.

Claims use since Jan. 1, 1895.

Ser. No. 142,822. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) AMOSKEAG MANUFACTURING COMPANY, Manchester, N. H. Filed Jan. 27, 1921. Under ten-year proviso.

FAVORITE

Particular description of goods.—Cotton Piece Goods.
Claims use since 1880.

Ser. No. 143,293. (CLASS 32. FURNITURE AND UPHOLSTERY.) ARTHUR TINDALL REYNOLDS, Brooklyn, N. Y. Filed Feb. 7, 1921.

THE SENSIBLE

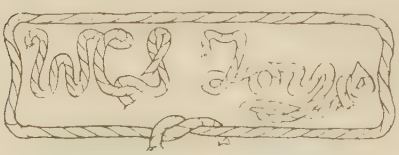
Particular description of goods.—Mattresses.
Claims use since Oct. 31, 1919.

Ser. No. 143,377. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) LUDWIG HUPFELD AKTIENGESELLSCHAFT, Bohlitz-Ehrenberg, Germany. Filed Feb. 10, 1921.

Dynamodant

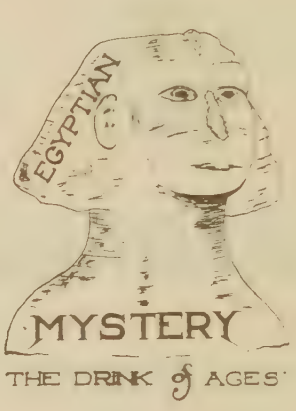
Particular description of goods.—Piano Players, Automatic Player Pianos, Grand and Upright Pianos, Pianos with Violin Attachment, Harmoniums, Organs, Violin and Similar Stringed Instruments, Automatically-Playing Violins, Orchestrions, Orchestrions with Violin, Perforated Note Sheets or Rolls for Automatic Players, and Parts for the Said Musical Instruments.
Claims use since Feb. 27, 1920.

Ser. No. 143,795. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) WILLIAM C. STANKE, Hoboken, N. J. Filed Feb. 18, 1921.



No claim being made to the word "Toys" apart from the mark shown in the drawing.
Particular description of goods.—Toys—Namely, a Wooden Toy Gunboat on Wheels.
Claims use since Feb. 1, 1921.

Ser. No. 143,930. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) THOMAS W. LARKIN & Co., doing business as Mystery Drink Company, Streator, Ill. Filed Feb. 23, 1921.



No claim being made to the word "Egyptian" and the words "The Drink of Ages" apart from the mark shown in drawing.
Particular description of goods.—Nonalcoholic, Noncereal Maltless Beverage Sold as a Soft Drink.
Claims use since June 1, 1920.

Ser. No. 144,204. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) JESSE SROFE, trading as J. Srofe Company, Cincinnati, Ohio. Filed Mar. 1, 1921.

The words "For the Kiddies" are disclaimed apart from the mark.
Particular description of goods.—Toy Blocks.
Claims use since Oct. 25, 1920.

Ser. No. 144,493. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) WESTINGHOUSE LAMP COMPANY, Bloomfield, N. J. Filed Mar. 8, 1921.

No claim being made to the words "Westinghouse Lamps" or to the large letter "W" when used alone.

Particular description of goods.—Incandescent Electric Lamps.

Claims use since Sept. 15, 1920.

Ser. No. 144,996. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM GEORGE ASQUITH, doing business as The Astron Manufacturing Co., London, England. Filed Mar. 21, 1921.

ASQUINE
(PASTE)

No claim is made to the word "Paste" apart from the mark as shown in the drawing.

Particular description of goods.—Chemical Substances Used for the Treatment of Coughs and Colds in Horses and for the Treatment of Husk (or Hoose) in Cattle.

Claims use since June 1, 1920.

Ser. No. 145,229. (CLASS 27. HOROLOGICAL INSTRUMENTS.) I. PRESS & SONS, Philadelphia, Pa. Filed Mar. 25, 1921.

RICHARD

Particular description of goods.—Watches.

Claims use since Oct. 15, 1920.

Ser. No. 145,264. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) HARTER MFG. COMPANY, Chicago, Ill. Filed Mar. 26, 1921.

Particular description of goods.—Electric-Lamp Sockets, Electric-Lamp-Cover Sockets, and Electric-Lamp Plugs.

Claims use since Feb. 28, 1921.

Ser. No. 145,287. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) RICH & FRANCE, Chicago, Ill. Filed Mar. 26, 1921.

Miss Dandy

Particular description of goods.—Brooms.

Claims use since Jan. 3, 1921.

Ser. No. 145,549. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) COLGATE & CO., Jersey City, N. J., and New York, N. Y. Filed Apr. 1, 1921.

Florient

Particular description of goods.—Soaps.

Claims use since Oct. 26, 1912.

Ser. No. 146,605. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) THE WOOSTER BRUSH COMPANY, Wooster, Ohio. Filed Apr. 22, 1921.

FOSS-SET
GUARANTEED
USE IN ANYTHING

The words "Guaranteed Use in Anything" being disclaimed apart from the mark shown. The trade-mark consists of the fanciful word "Foss-Set."

Particular description of goods.—Brushes—viz, Nail, Paint, Varnish, Hand, Floor, Calcimine, Whitewash, and Shaving.

Claims use since Jan. 1, 1921.

Ser. No. 147,081. (CLASS 39. CLOTHING.) AMBCO, INC., New York, N. Y. Filed May 2, 1921.

The diagonal lines on the drawing indicate shading only.

Particular description of goods.—Clothing and Wearing Apparel for Men, Women, and Children—Namely, Men's Suits, Hats, Dress Shirts, Knitted Underwear, Neckwear, Hosiery, Belts, Pyjamas; Women's Suits, Coats, Dresses, Waists; Knitted Underwear—Hosiery; Children's Suits, Coats, Dresses, Knitted Underwear, and Hosiery.

Claims use since Jan. 3, 1921.

Ser. No. 147,411. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) COLONIAL DAMES BEAUTIFIER COMPANY, Los Angeles, Calif. Filed May 9, 1921.

Colonial Dames

Particular description of goods.—Beautifier, (Paste Form,) Rouge, Shampoo, Hair Tonic, Depilatory, Eyebrow Pencil.

Claims use since December, 1914.

Ser. No. 147,673. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MUCINE PRODUCTS COMPANY, Chicago, Ill. Filed May 13, 1921.

SPINODYNE

Particular description of goods.—Embrocations Known as Spinal Massage Creams.

Claims use since Dec. 2, 1920.

Ser. No. 147,913. (CLASS 39. CLOTHING.) CHURCHILL & ALDEN CO., Brockton, Mass. Filed May 19, 1921.

THE SNUG ARCH SHOE

No claim is made to the exclusive use of the words "The Snug Arch Shoe" apart from the mark shown in the drawing.

Particular description of goods.—Shoes and Boots of Leather, Canvas, Woolen Cloth, Rubber, Panama Straw, and Other Fabrics for Men, Women, and Children.

Claims use since Apr. 23, 1921.

Ser. No. 147,915. (CLASS 17. TOBACCO PRODUCTS.) J. GARBÁTY-ROSENTHAL, ZIGARETTENFABRIK J. GARBÁTY, BERLIN-PANKOW, Berlin-Pankow, Germany, Filed May 19, 1921.

Ecarté

Particular description of goods.—Cigars, Cigarettes, Cigarillos, Smoking, Chewing, and Snuff Tobacco, Unprepared Tobacco.

Claims use since Apr. 11, 1904.

Ser. No. 147,916. (CLASS 17. TOBACCO PRODUCTS.) J. GARBÁTY-ROSENTHAL, ZIGARETTENFABRIK J. GARBÁTY, BERLIN-PANKOW, Berlin-Pankow, Germany, Filed May 19, 1921.

„Passion"

Particular description of goods.—Cigarettes, Smoking, Chewing, and Snuff Tobacco, Cut and Unprepared Tobacco.

Claims use since Dec. 27, 1911.

Ser. No. 147,917. (CLASS 17. TOBACCO PRODUCTS.) J. GARBÁTY-ROSENTHAL, ZIGARETTENFABRIK J. GARBÁTY, BERLIN-PANKOW, Berlin-Pankow, Germany, Filed May 19, 1921.

Akt

Particular description of goods.—Cigars, Cigarettes, Cigarillos, Smoking, Chewing, and Snuff Tobacco, and Unprepared Tobacco.

Claims use since Oct. 20, 1906.

Ser. No. 147,918. (CLASS 17. TOBACCO PRODUCTS.) J. GARBÁTY-ROSENTHAL, ZIGARETTENFABRIK J. GARBÁTY, BERLIN-PANKOW, Berlin-Pankow, Germany, Filed May 19, 1921.

Yorck

Particular description of goods.—Cigars, Cigarettes, Smoking, Chewing, and Snuff Tobacco, Cut Tobacco.

Claims use since Jan. 13, 1919.

Ser. No. 147,919. (CLASS 17. TOBACCO PRODUCTS.) J. GARBÁTY-ROSENTHAL, ZIGARETTENFABRIK J. GARBÁTY, BERLIN-PANKOW, Berlin-Pankow, Germany, Filed May 19, 1921.

„Matos"

Particular description of goods.—Cigars, Cigarettes, Cigarillos, Smoking, Chewing, and Snuff Tobacco, Cut and Prepared Tobacco.

Claims use since June 21, 1915.

Ser. No. 147,920. (CLASS 17. TOBACCO PRODUCTS.) J. GARBÁTY-ROSENTHAL, ZIGARETTENFABRIK J. GARBÁTY, BERLIN-PANKOW, Berlin-Pankow, Germany, Filed May 19, 1921.

ASPASIA.

Particular description of goods.—Cigarettes.

Claims use since Mar. 24, 1897.

Ser. No. 147,921. (CLASS 17. TOBACCO PRODUCTS.) J. GARBÁTY-ROSENTHAL, ZIGARETTENFABRIK J. GARBÁTY, BERLIN-PANKOW, Berlin-Pankow, Germany, Filed May 19, 1921.

No claim being made to the word "Cigaretten."

Particular description of goods.—Cigars, Cigarettes, Cigarillos, Smoking, Chewing, and Snuff Tobacco, Unprepared Tobacco.

Claims use since June 12, 1914.

Ser. No. 147,922. (CLASS 17. TOBACCO PRODUCTS.) J. GARBÁTY-ROSENTHAL, ZIGARETTENFABRIK J. GARBÁTY, BERLIN-PANKOW, Berlin-Pankow, Germany, Filed May 19, 1921.

Garbáty Feudal

Particular description of goods.—Cigars, Cigarettes, Cigarillos, Smoking, Chewing, and Snuff Tobacco, Unprepared Tobacco.

Claims use since Nov. 17, 1906.

Ser. No. 148,025. (CLASS 39. CLOTHING.) ISIDORE TANNENBAUM, New York, N. Y. Filed May 21, 1921.

No claim being made to the exclusive use of the words "New York" apart from the mark as shown on the drawing.

Particular description of goods. -Ladies' Trimmed and Untrimmed Hats and Hat Frames.

Claims use since April, 1917.

Ser. No. 148,230. (CLASS 39. CLOTHING.) WILLIAM MYALL, Tottenham, London, England. Filed May 25, 1921.

Particular description of goods.—Boots, Shoes, and Leggings Made of Leather.

Claims use since Dec. 1, 1894.

Ser. No. 149,153. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) SEVEN SPAS SOAP PROPRIETARY COY., LIMITED, London, England. Filed June 14, 1921.

No claim being made to the words "Soap" and "Anti-Rheumatic" apart from the mark shown in drawing.

Particular description of goods.—Antirheumatic Medicated Soap for Human Use.

Claims use since May 4, 1920.

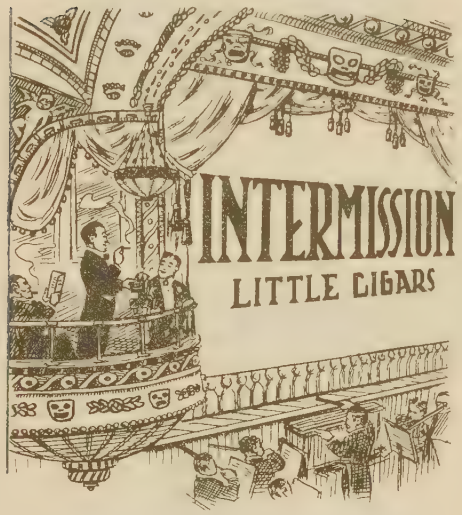
Ser. No. 149,246. (CLASS 38. PRINTS AND PUBLICATIONS.) RAND MCNALLY AND COMPANY, Chicago, Ill. Filed June 16, 1921.

The lining on drawing is for the purpose of shading only.

Particular description of goods.—Maps, Atlases, Miscellaneous Books, Bankers' Directory, Magazines Published Monthly, Completely-Printed Tickets, and Coupon Books.

Claims use since June 12, 1920.

Ser. No. 149,312. (CLASS 17. TOBACCO PRODUCTS.) ISRAEL AARON, New York, N. Y. Filed June 18, 1921.



No claim being made to the expression, "Little Cigars," apart from the mark shown in drawing.

Particular description of goods.—Little Cigars.

Claims use since May 5, 1921.

Ser. No. 149,534. (CLASS 39. CLOTHING.) AMERICAN LADY CORSET CO., Detroit, Mich. Filed June 23, 1921.

American Girl

Particular description of goods.—Corset Waists, Brassières, Bandeaux, Girdles, Hose Supporters.

Claims use since Dec. 27, 1904.

Ser. No. 150,409. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ROSSVILLE COMPANY, Lawrenceburg, Ind. Filed July 15, 1921.

LINCOHOL

Particular description of goods.—Liniment—That is, an Alcoholic Rub to be Used Externally After Bathing and for External Use in Bathing, Sprains, or Rheumatism, Neuralgia, Sickness, and as a Counterirritant and Generally for All Uses for Which Pure Alcohol Would be Used as an External Rub.

Claims use since July 1, 1921.

Ser. No. 150,450. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HECKER-JONES-JEWELL MILLING COMPANY, New York, N. Y. Filed July 16, 1921.

Particular description of goods.—Prepared Flour.

Claims use since Oct. 8, 1920.

Ser. No. 150,533. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HYDRARGINOL COMPANY, Kansas City, Mo. Filed July 18, 1921.

HYDRARGINOL

Particular description of goods.—Medicine, a One Per Cent Solution of Hydrargyri Iodium Rubrum in Oil Used in the Treatment of Syphilis.

Claims use since July 1, 1919.

Ser. No. 150,755. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DR. KADE'S MEDIZINISCH-PHARMAZEUTISCHES FABRIKATIONS-& EXPORTGESCHAFT DR. FRANZ LUTZE, Berlin, Germany. Filed July 21, 1921.

Asthmolysin

Particular description of goods.—Pharmaceutical Products Especially for Asthma.

Claims use since July, 1912.

Ser. No. 150,802. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHOLSANIN A. G., Berne, Switzerland. Filed July 22, 1921.

Cholsanin

Particular description of goods.—Preparations for the Treatment of Diseases of the Liver, Particularly Gall-Stones.

Claims use since December, 1920.

Ser. No. 151,326. (CLASS 48. MALT BEVERAGES, EXTRACTS AND LIQUORS.) JOHN MACAULEY, doing business as Liberty Home Beverage Company, Detroit, Mich. Filed Aug. 3, 1921.

LIBERTY

Particular description of goods.—Malt-Extract Sirup.
Claims use since Jan. 15, 1919.

Ser. No. 151,660. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) FREDERICK H. CHATFIELD, Cincinnati, Ohio. Filed Aug. 11, 1921.

HAV-A-WASH

Particular description of goods.—Package Containing Two Paper Towels and a Piece of Soap.
Claims use since June 15, 1921.

Ser. No. 151,874. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) FREDERICK HACHMANN, St. Louis, Mo., assignor to Bock Novelty and Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Aug. 17, 1921.

E-Z-GO

Particular description of goods.—Shoe Plates for Boots and Shoes.
Claims use since about Aug. 11, 1921.

Ser. No. 151,944. (CLASS 39. CLOTHING.) ISIDOR GOLDBERG, Brooklyn, N. Y. Filed Aug. 19, 1921.

OCRAGAN

Particular description of goods.—Hose-Supporters, Arm Bands, and Garters.
Claims use since Jan. 2, 1920.

Ser. No. 151,989. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DANIEL JAQUET, trading as Parfums Fontanis, Neuilly sur Seine, Paris, France. Filed Aug. 20, 1921.

Quel Délice

The trade mark consists of the words "Quel Delice."
Particular description of goods.—Toilet Preparations—Namely, Perfumery Extract, Toilet Water, Face Powder, Sachet Powder, Skin Lotion, Vegetable Eau de Cologne, Hair Dressing, Talcum Powder, Eau Dentifrice, and Rouge.
Claims use since Apr. 1, 1920.

Ser. No. 152,040. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RUSSELL A. SCHIRMER, doing business as R. A. Schirmer & Company, Cincinnati, Ohio. Filed Aug. 22, 1921.

Particular description of goods.—Face Powder, Talcum Powder, Rouge, Face Cream, Vanishing Cream, Lip Sticks, Dental Cream, and Dipilatory.
Claims use since on or about May 2, 1921.

Ser. No. 152,041. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOLVENO CHEMICAL CO., Wilmington, Del. Filed Aug. 22, 1921.

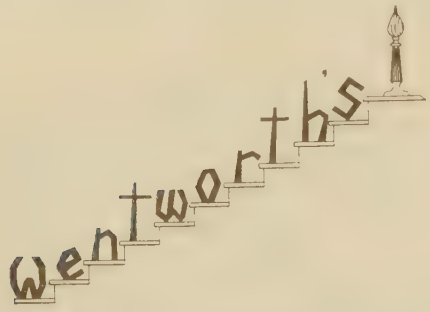
SOLVENO

Particular description of goods.—Carbon Remover of a Chemical Nature.
Claims use since July, 1921.

Ser. No. 152,089. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NU-LIFE COMPANY, Cuyahoga Falls, Ohio. Filed Aug. 23, 1921.

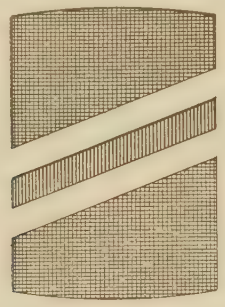
No claim is made to the exclusive use of the following language appearing in the drawing: "America's Most Popular Poultry & Pigeon Preparations, Poultry, Pigeons, Mfrs., Cuyahoga Falls, Ohio, U. S. A." apart from the mark shown.
Particular description of goods.—A General Tonic for Poultry, Pigeons, and Turkeys.
Claims use since Mar. 15, 1921.

Ser. No. 152,153. (CLASS 39. CLOTHING.) WENTWORTH CLOTHING COMPANY, Spokane, Wash. Filed Aug. 24, 1921.



Particular description of goods.—Men's, Young Men's and Boys' Haberdashery—Namely, Collars, Neckties, Suspenders, Belts, Garters, Leather Shoes, Rubber Shoes, Fabric Shoes, and Combinations of Leather and Fabric and Rubber and Fabric Shoes, Scarfs, Leather and Fabric Gloves, Hats, and Caps.
Claims use since May 1, 1888.

Ser. No. 152,230. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) BIFLEX PRODUCTS COMPANY, Waukegan, Ill. Filed Aug. 27, 1921.



The mark consists of a rectangular panel having two parallel bars extending obliquely of said panel, the space within the panel above and below the bars being in black and the space between the bars being in red.
Particular description of goods.—Automobile Bumpers and Parts Thereof.
Claims use since Aug. 18, 1921.

Ser. No. 152,269. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RAFFAELE MARTORELLI, New York, N. Y. Filed Aug. 27, 1921.

CARUSO

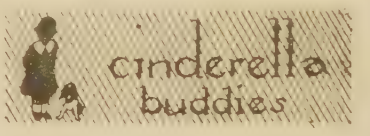
The portrait is that of Enrico Caruso, deceased.
Particular description of goods.—Olive Oil.
Claims use since Aug. 8, 1921.

Ser. No. 152,293. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARY LIZZIE WHITFIELD, trading as Madam D. W. Whitfield, Americus, Ga. Filed Aug. 27, 1921.

MANOLA

Particular description of goods.—Preparation for the Scalp to be Used as a Tonic and for Promoting the Growth of Hair.
Claims use since Mar. 6, 1921.

Ser. No. 152,653. (CLASS 39. CLOTHING.) ROSENAU BROS. INC., Philadelphia, Pa. Filed Sept. 6, 1921.



The lining on drawing is for shading, not color.
Particular description of goods.—Children's Dresses, Rompers, Creepers, and Suits.
Claims use since July 11, 1921.

Ser. No. 152,696. (CLASS 17. TOBACCO PRODUCTS.) LEVON BERBERIAN, Providence, R. I. Filed Sept. 8, 1921.

Particular description of goods.—Cigars and Cigarettes.
Claims use since about September, 1918.

Ser. No. 152,782. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) MARCEL BAILLY, Paris, France. Filed Sept. 10, 1921.

KISPAN

Particular description of goods.—Soap.
Claims use since July 1, 1921.

Ser. No. 152,955. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) CHEMISCHE FABRIK VON HEYDEN, AKTIENGESELLSCHAFT, Radebeul, Germany. Filed Sept. 15, 1921.

Brolon

Particular description of goods.—Bottle Caps.
Claims use since about 1913.

Ser. No. 153,029. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) AUTOMATIC BEARING CO. INC., Geneseo, Ill. Filed Sept. 17, 1921.

NONOK

Particular description of goods.—Bolts.
Claims use since May 19, 1921.

Ser. No. 153,045. (CLASS 39. CLOTHING.) J. A. LAMY MFG. CO., Sedalia, Mo. Filed Sept. 17, 1921.

OX HORN

Particular description of goods.—Overalls, Jackets, and Vests; Combination Suits, Work Shirts, Flannel Shirts, Children's Play Suits, Brownies, Work Pants, Wash Pants, Cottonade, Corduroy, Khaki, and Jeans Pants, Sheep Lined; Corduroy, Duck, Moleskin, and Cottonade Coats.
Claims use since June, 1896.

Ser. No. 153,058. (CLASS 45. BEVERAGES, NONALCOHOLIC.) TROPICAL FRUIT JUICE COMPANY, Chicago, Ill. Filed Sept. 17, 1921.

SMACK

Particular description of goods.—Nonalcoholic Maltless Beverages Sold as Soft Drinks and Sirups for Making the Same.
Claims use since October, 1914.

Ser. No. 153,134. (CLASS 39. CLOTHING.) M. FRANK SONS & COMPANY INC., New York, N. Y. Filed Sept. 20, 1921.

Surety Bond

Particular description of goods.—Men's and Young Men's Clothing—Namely, Overcoats, Trousers, Coats, Etc.
Claims use since Sept. 1, 1921.

Ser. No. 153,277. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DANIEL P. WOOLLEY, New York, N. Y. Filed Sept. 23, 1921.

The word "Bread" is disclaimed.
Particular description of goods.—Bread.
Claims use since Aug. 18, 1921.

Ser. No. 153,295. (CLASS 11. INKS AND INKING MATERIALS.) KEE LOX MANUFACTURING COMPANY, Rochester, N. Y. Filed Sept. 24, 1921.

GYPSY

Particular description of goods.—Carbon Paper.
Claims use since about June 1, 1910.

Ser. No. 153,298. (CLASS 11. INKS AND INKING MATERIALS.) KEE LOX MANUFACTURING COMPANY, Rochester, N. Y. Filed Sept. 24, 1921.

ELITE

Particular description of goods.—Carbon Paper.
Claims use since about June 1, 1904.

Ser. No. 153,301. (CLASS 11. INKS AND INKING MATERIALS.) KEE LOX MANUFACTURING COMPANY, Rochester, N. Y. Filed Sept. 24, 1921.

SILVER

Particular description of goods.—Carbon Paper and Typewriter Ribbons.
Claims use since about May 1, 1921.

Ser. No. 153,304. (CLASS 11. INKS AND INKING MATERIALS.) KEE LOX MANUFACTURING COMPANY, Rochester, N. Y. Filed Sept. 24, 1921.

IVORY

Particular description of goods.—Carbon Paper.
Claims use since about June 1, 1902.

Ser. No. 153,306. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) LIFE SAVER SOAP WORKS OF AMERICA, Chicago, Ill. Filed Sept. 24, 1921.

LIFE SAVER

Particular description of goods.—Toilet Soap.
Claims use since July 15, 1921.

Ser. No. 153,330. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM ORRIN BACKUS, San Francisco, Calif. Filed Sept. 26, 1921.

Z
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D

Particular description of goods.—Dietary Cookies.
Claims use since Sept. 1, 1921.

Ser. No. 153,516. (CLASS 17. TOBACCO PRODUCTS.) JOHN H. MASTERMAN, Baltimore, Md. Filed Sept. 29, 1921.

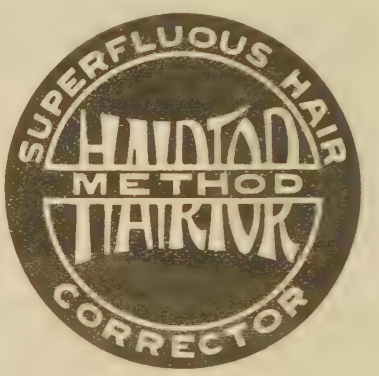
Monumental

Particular description of goods.—Cigars.
Claims use since July 1, 1921.

Ser. No. 153,630. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WARD BAKING COMPANY, New York, N. Y. Filed Oct. 1, 1921.

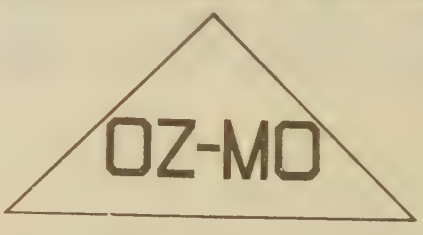
Particular description of goods.—Bread.
Claims use since Sept. 22, 1921.

Ser. No. 153,693. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) A. J. RICHARDSON, Crafton Borough, Pa. Filed Oct. 3, 1921.



The words "Method" and "Superfluous Hair Corrector" are disclaimed apart from the mark shown.
Particular description of goods.—Preparation for the Removal of Superfluous Hair.
Claims use since Aug. 10, 1921.

Ser. No. 153,924. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ROBERT S. CLARK, Olympia, Wash. Filed Oct. 10, 1921.



Particular description of goods.—Medicinal Preparation, Being a Specific Used for the Reduction of Inflammations.
Claims use since Nov. 1, 1896.

Ser. No. 153,952. (CLASS 39. CLOTHING.) RELIANCE MANUFACTURING COMPANY, Chicago, Ill. Filed Oct. 10, 1921.

Particular description of goods.—Work Shirts.
Claims use since Oct. 4, 1921.

Ser. No. 154,232. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE E. MURRY, Pequea, Pa. Filed Oct. 17, 1921.

The portrait disclosed in the drawing is that of the applicant.

Particular description of goods.—Liniment for External Use for Open Wounds, Running Sores, Fresh Cuts, Bruises, Sprains, Neuralgia, Headache, Lumbago, Indigestion, Rheumatism, Poison, Hives, Bites of Any Kind, Itch, Erysipelas, Stiff Joints, Acute or Chronic Sweeny, Quinsy, Cold on the Chest, and as an Antiseptic.

Claims use since Aug. 20, 1921.

Ser. No. 154,233. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES H. MATSON, doing business as C. H. Matson & Co., Jersey City, N. J. Filed Oct. 17, 1921.

No claim is made to the words "Rheumatic Rub" and to the word "Products."

Particular description of goods.—Preparation for External Application in the Treatment of Rheumatism, Neuralgia, and Other Diseases by Local Analagesic and Therapeutic Action.

Claims use since Apr. 30, 1921.

Ser. No. 154,283. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES C. OLIVER, doing business as Oliver-Eaton Co., Montclair, N. J. Filed Oct. 18, 1921.

ADA EATON'S

Trade-mark consists of the words "Ada Eaton's" and the picture of Mrs. Ada Eaton.

Particular description of goods.—Toilet Preparations—viz., Lime and Almond Cream, Liquid Hair Tonic, Shampoo, Massage Cream, and Ointment for the Treatment of Scalp and Skin Diseases, Burns, Scalds, and Sores of Any Kind.

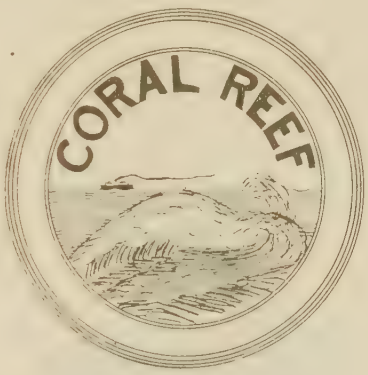
Claims use since May 1, 1904.

Ser. No. 154,319.. (CLASS 38. PRINTS AND PUBLICATIONS.) THE NATIONAL POULTRY INSTITUTE, INC., Baltimore, Md., and Washington, D. C. Filed Oct. 19, 1921.

Particular description of goods.—Lesson Books and Catalogues Issued Semiannually.

Claims use since Nov. 1, 1920.

Ser. No. 154,326. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RICHARD H. RICE, Coconut Grove, Fla. Filed Oct. 19, 1921.



Particular description of goods.—Fresh Oranges, Grapefruit, and Tangerines.

Claims use since Sept. 13, 1921.

Ser. No. 154,342. (CLASS 47. WINES.) WALBAUM, GOULDEN & Co., Reims, France. Filed Oct. 19, 1921.

Monopole

Particular description of goods.—Champagne Wines.

Claims use since 1862.

Ser. No. 154,371. (CLASS 39. CLOTHING.) GEORGE H. LEININGER, doing business as Industrial Hosiery Mills, Mohnton, Pa. Filed Oct. 20, 1921.

LENIX

Particular description of goods.—Hosiery.
Claims use since May, 1920.

Ser. No. 154,373. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE MEDICRAFT COMPANY, Cleveland, Ohio. Filed Oct. 20, 1921.

Medicraft

The lines occurring in the drawing on the shield are shading lines. No exclusive right is claimed to the words "Quality First" apart from the mark as shown in drawing.
Particular description of goods.—Soap.
Claims use since on or about Sept. 15, 1921.

Ser. No 154,393. (CLASS 39. CLOTHING.) TOWN TALK MANUFACTURING CO., Louisville, Ky. Filed Oct. 20, 1921.

No claim being made to the word "Cap" apart from the mark shown.
Particular description of goods.—Men's and Boys' Caps
Claims use since July 1, 1921.

Ser. No. 154,427. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE I. BRANOWER, doing business as Say Drug Products Co., New York, N. Y. Filed Oct. 22, 1921.

SAY-TUSSIN

Particular description of goods.—Preparations for the Treatment of Coughs and Colds.
Claims use since December, 1919.

Ser. No. 154,430. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) H. S. BERLINER, trading as The Compo Company, Lachine, Quebec, and Toronto, Canada. Filed Oct. 22, 1921.

SUN

Particular description of goods.—Talking Machines, Talking-Machine Parts, Talking-Machine Records and Needles.
Claims use since Apr. 23, 1921.

Ser. No. 154,479. (CLASS 28. JEWELRY AND PRECIOUS METAL WARE.) D. D. BROKAW & SON, New York, N. Y. Filed Oct. 24, 1921.

Particular description of goods.—Finger Rings, Brooches, Bar Pins, Lavallières, and Scarf Pins.
Claims use since January, 1894.

Ser. No. 154,511. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) JOHN E. R. HASBROUCK, doing business as Hasbrouck Laboratories, New York, N. Y. Filed Oct. 24, 1921.

IVORAX

Particular description of goods.—Preparation for Removing Dirt and Stains from the Hands, Clothing, Wood, and Glass.
Claims use since 1917.

Ser. No. 154,531. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) G. ROSSANO & BRO., New York, N. Y. Filed Oct. 24, 1921.

AIDA

Particular description of goods.—Olive Oil.
Claims use since Feb. 26, 1917.

Ser. No. 154,542. (CLASS 39. CLOTHING.) RALPH M. WHITMAN, New Bedford, Mass. Filed Oct. 24, 1921.

SAVE-STOK

Particular description of goods.—Garters.
Claims use since Oct. 19, 1921.

Ser. No. 154,582. (CLASS 39. CLOTHING.) GEORGE C. BATCHELLER & CO., New York, N. Y. Filed Oct. 26, 1921. Under ten-year proviso.

THOMSON'S GLOVE-FITTING

Particular description of goods.—Corsets.
Claims use since about January, 1867.

Ser. No. 154,583. (CLASS 39. CLOTHING.) GEORGE C. BATCHELLER & CO., New York, N. Y. Filed Oct. 26, 1921.

GRAND DUCHESS

Particular description of goods.—Corsets.
Claims use since about the year 1901.

Ser. No. 154,614. (CLASS 48. MALT BEVERAGES, EXTRACTS, AND LIQUORS.) NEW ENGLAND BREWING COMPANY, doing business as Haffenreffer & Co., Jersey City, N. J., and Boston, Mass. Filed Oct. 26, 1921.

Pick

Particular description of goods.—Concentrated Material Brewed from Malt and Hops Suitable for the Making of a Malt Beverage.
Claims use since Dec. 1, 1920.

Ser. No. 154,619. (CLASS 39. CLOTHING.) SCHEINZEIT-GOLDMAN CO., New York, N. Y. Filed Oct. 26, 1921.

Phormfit

Particular description of goods.—Underwear for Women in One and Two Piece Garments of Knit and of Woven Fabric.
Claims use since July 1, 1921.

Ser. No. 154,655. (CLASS 39. CLOTHING.) LACROSSE RUBBER MILLS CO., Lacrosse, Wis. Filed Oct. 27, 1921.

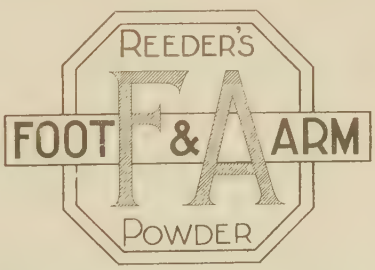
No claim being made for "La Crosse, Wis., U. S. A." apart from mark shown in drawing.
Particular description of goods.—Rubber Boots and Shoes.
Claims use since Sept. 1, 1921.

Ser. No. 154,662. (CLASS 39. CLOTHING.) RICE-STIX DRY GOODS COMPANY, St. Louis, Mo. Filed Oct. 27, 1921.

THE BOSS

Particular description of goods.—Hosiery.
Claims use since October, 1910.

Ser. No. 154,663. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) D. G. REEDER, doing business as Reeder Manufacturing Company, Atlanta, Ga. Filed Oct. 27, 1921.



No claim is made to the words "Foot and Arm Powder" apart from the mark shown in drawing. The lining of drawing represents shading only.
Particular description of goods.—Antiseptic Deodorant Powder.
Claims use since Sept. 27, 1921.

Ser. No. 154,676. (CLASS 39. CLOTHING.) THE HERMAN WEISS CO., Cincinnati, Ohio. Filed Oct. 27, 1921.

Particular description of goods.—Dresses for Ladies and Girls.
Claims use since Sept. 10, 1921.

Ser. No. 154,743. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HARRY HARDEN, trading as The Famous Manufacturing Company, London, Ohio. Filed Oct. 29, 1921.

Harden's Famous
U. S. B.

The portrait is that of registrant.
Particular description of goods.—Liquid Preparation for Stomach and Heart Trouble, Acute Indigestion, Constipation, Appendicitis, Sick Headache, Piles, Kidney and Liver Troubles, Lumbago, Rheumatism, Dropsy, Nervousness, and Fainting.
Claims use since about July 1, 1921.

Ser. No. 154,790. (CLASS 39. CLOTHING.) CRESCENT COMPANY, New York, N. Y. Filed Oct. 31, 1921.

Applicant disclaims any exclusive right to the words "Trade Mark" apart from the other features shown on the drawing.
Particular description of goods.—Sweaters, Bathing Suits, Knitted Jackets, Knitted Vests, Mufflers, Scarfs, and Caps.
Claims use since 1890.

Ser. No. 154,856. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE WOMAN'S MUTUAL BENEFIT COMPANY, Joliet, Ill. Filed Oct. 31, 1921.

PRIMEDA

Particular description of goods.—Vaginal Suppositories, Antiseptic Ointments, General Tonics, Digestive Tablets, Liver Tablets, Nerve Tablets, Kidney and Bladder Tablets, Rheumatism Tablets, Pile Cones, Laxative Tablets, Cough Tablets, Malaria Tablets, Urus Tablets, Uterine Compound.
Claims use since May 1, 1914.

Ser. No. 154,873. (CLASS 39. CLOTHING.) GILLETTE RUBBER CO., Eau Claire, Wis. Filed Nov. 1, 1921.

RUBRMAID
APRON

The word "Apron" does not form a part of the registration sought apart from the mark shown in the drawing.
Particular description of goods.—Aprons.
Claims use since Sept. 1, 1921.

Ser. No. 154,886. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) OMAHA FLOUR MILLS CO., Omaha, Nebr. Filed Nov. 1, 1921.

Particular description of goods.—Wheat Flour.
Claims use since June 10, 1921.

Ser. No. 154,934. (CLASS 39. CLOTHING.) MAURICE SALTZMAN, New York, N. Y. Filed Nov. 2, 1921.

Radcliffe

Particular description of goods.—Ladies' Hats.
Claims use since June 21, 1921.

Ser. No. 154,948. (CLASS 17. TOBACCO PRODUCTS.) THE WIGWAM RETAIL STORES COMPANY, Columbia, S. C. Filed Nov. 2, 1921.

WIGWAM

Particular description of goods.—Cigars, Cigarettes, Cheroots, Snuff, and Smoking Tobacco.
Claims use since October, 1917.

Ser. No. 154,959. (CLASS 39. CLOTHING.) CENTURY KNITTING MILLS, New York, N. Y. Filed Nov. 3, 1921.

Sporto

Particular description of goods.—Knit Jackets.
Claims use since July 1, 1921.

Ser. No. 155,013. (CLASS 4. ABRASIVE DETERGENT, AND POLISHING MATERIALS.) GEORGE BORGFELDT & Co., New York, N. Y. Filed Nov. 4, 1921.

Menagery

Particular description of goods.—Toilet Soap.
Claims use since Oct. 15, 1921.

Ser. No. 155,032. (CLASS 39. CLOTHING.) THE R. B. CLOTHING COMPANY, INC., Cincinnati, Ohio. Filed Nov. 4, 1921.

RB

Particular description of goods.—Men's Clothing for Outer Wear—Namely, Men's Suits, Overcoats, Trousers, Coats, and Vests.
Claims use since Jan. 1, 1921.

Ser. No. 155,055. (CLASS 27. HOROLOGICAL INSTRUMENTS.) PAUL FORBRIGER, doing business as Paul Forbriger & Co., New York, N. Y. Filed Nov. 5, 1921.

Umpire

Particular description of goods.—Watches.
Claims use since January, 1919.

Ser. No. 155,064. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AMERICUS OJEDA MCMICHAEL, Denver, Colo. Filed Nov. 5, 1921.

Particular description of goods.—Gland Mixtures and Preparations for the Treatment of High Blood Pressure, Hardening of the Arteries, Lost Vigor, Lack of Development in Children, Lung, Kidney, Uterine, Nerve, or Prostate Troubles and Menopause and Neurotic Conditions.
Claims use since Jan. 1, 1921.

Ser. No. 155,101. (CLASS 22. GAMES TOYS, AND SPORTING GOODS.) JAMES B. LUDLOW, Philadelphia, Pa. Filed Nov. 7, 1921.

GO!

Particular description of goods.—A Parlor Board Game
Claims use since Sept. 17, 1921.

Ser. No. 155,110. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) A. NEHRING & SONS CO., Chicago, Ill. Filed Nov. 7, 1921.

KLINGZON LEANER

No claim being made to the exclusive use of the word "Kleaner" apart from the mark shown.

Particular description of goods.—Cleaning Compound Which is of Particular Use in Cleaning Painted and Varnished Walls, Woodwork, and Floors.

Claims use since July 23, 1918.

Ser. No. 155,162. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) DIAMOND BRAIDING MILLS, Chicago Heights, Ill. Filed Nov. 8, 1921.

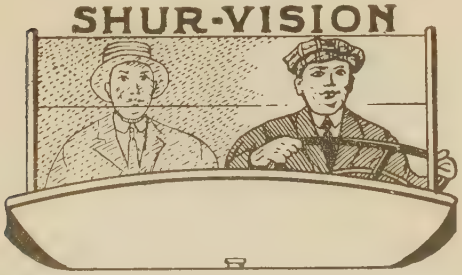
Cling-lite-lip

Particular description of goods.—Shoe Laces.

Claims use since July 1, 1921.

Ser. No. 155,164. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) CRIS A. EDWARDSEN, doing business as D. L. Witmer & Bro., Philadelphia, Pa. Filed Nov. 8, 1921.

SHUR-VISION



Particular description of goods.—Windshield Cleaners of the Squeegee Type.

Claims use since Sept. 1, 1921.

Ser. No. 155,167. (CLASS 39. CLOTHING.) W. T. GRANT CO., New York, N. Y. Filed Nov. 8, 1921.

JACK-O-LANTERN

Particular description of goods.—Children's Hosiery.

Claims use since Sept. 1, 1921.

Ser. No. 155,224. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) GENERAL ABRASIVE CO., INC., Niagara Falls, N. Y. Filed Nov. 9, 1921.

LUNDITE

Particular description of goods.—Corundum, Emery, and Silicon Carbide.

Claims use since 1919.

Ser. No. 155,260. (CLASS 39. CLOTHING.) HUDSON SEAL CO. INC., New York, N. Y. Filed Nov. 10, 1921.

Particular description of goods.—Fur Coats, Wraps, Capes, and Neck Pieces.

Claims use since about July 1, 1921.

Ser. No. 155,287. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WHITE-DOVE LABORATORIES, New York, N. Y. Filed Nov. 10, 1921.

DOVE'S

CLARINATED

No claim being made to the word "Clarinated" apart from the trade-mark as shown.

Particular description of goods.—Olive-Oil Shampoo.

Claims use since Oct. 19, 1921.

Ser. No. 155,293. (CLASS 39. CLOTHING.) AMERICAN WHOLESALE CORPORATION (BALTIMORE BARGAIN HOUSE), Baltimore and Cumberland, Md. Filed Nov. 12, 1921.

Particular description of goods.—Children's and Misses' Garters.
Claims use since Mar. 20, 1921.

Ser. No. 155,296. (CLASS 39. CLOTHING.) AMERICAN WHOLESALE CORPORATION (BALTIMORE BARGAIN HOUSE), Baltimore and Cumberland, Md. Filed Nov. 12, 1921.

Particular description of goods.—Children's and Misses' Garters.
Claims use since Mar. 20, 1921.

Ser. No. 155,305. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) FUNSTEN BROTHERS & COMPANY, St. Louis, Mo. Filed Nov. 12, 1921.

SUPERBILT

Particular description of goods.—Tubes for Pneumatic Tires.
Claims use since Oct. 15, 1921.

Ser. No. 155,322. (CLASS 39. CLOTHING.) ROSENBERG BROS. & CO., Rochester, N. Y. Filed Nov. 12, 1921.

PARVEE

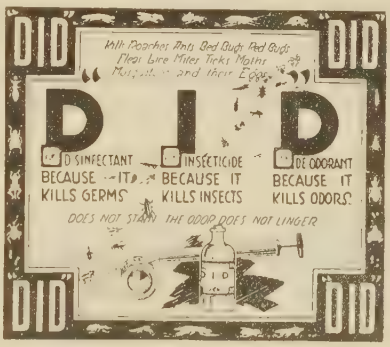
Particular description of goods.—Men's Coats, Vests, and Pants.
Claims use since on on about Sept. 1, 1921.

Ser. No. 155,374. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ROGER H. VOLLMER, trading as Eatabita Cheese Company, Phoenixville, Pa. Filed Nov. 14, 1921.

EATABITA

Particular description of goods.—Cheese.
Claims use since Nov. 2, 1921.

Ser. No. 155,399. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FURMAN COMPANY, San Antonio, Tex. Filed Nov. 15, 1921.



We disclaim exclusive appropriation of all the wording or language appearing in the above-mentioned drawing with the exception of the word "Did."
Particular description of goods.—Disinfectants, Insecticide and Deodorant.
Claims use since June, 1921.

Ser. No. 155,413. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) MASON PACKING COMPANY, Pittsburgh, Pa. Filed Nov. 15, 1921.

Particular description of goods.—Fluid-Tight Packing Comprising Metallic Bearing Members and Resilient Composition Backing Members Therefor.
Claims use since about November, 1918.

Ser. No. 155,414. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN E. MARRIOTT, Latrobe, Pa. Filed Nov. 15, 1921.

NU-PYO

Particular description of goods.—Medicines for Medicinal Treatment of Sore Gums, Bleeding Gums, and Toothache, and for Tooth-Paste Plain, Tooth-Paste Medicated, and Mouth Washes.
Claims use since Sept. 15, 1921.

Ser. No. 155,417. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BARNEY L. PALLEYESCH, doing business as Pals Chemical Company, Brooklyn, N. Y. Filed Nov. 15, 1921.

GUMOL

Particular description of goods.—Liquid Preparation for Treating and Relieving Pain to the Gums.
Claims use since May 1, 1919.

Ser. No. 155,466. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) COMMODORE C. WRIGHT, McLeansboro, Ill. Filed Nov. 16, 1921.

ALWAYS THE BEST
"The Wright Pack"

The words "Always the Best" are hereby disclaimed apart from the mark shown.
Particular description of goods.—Dressed Poultry and Eggs.
Claims use since Oct. 15, 1919.

Ser. No. 155,633. (CLASS 38. PRINTS AND PUBLICATIONS.) PHILADELPHIA QUARTZ COMPANY, Philadelphia, Pa. Filed Nov. 19, 1921.

P's & Q's

Particular description of goods.—A Series of Pamphlets, Booklets, or Leaflets Published From Time to Time.
Claims use since on about Apr. 25, 1921.

Ser. No. 155,736. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CONCENTRATED PRODUCTS CORPORATION, Carlstadt, N. J., and New York, N. Y. Filed Nov. 22, 1921.

No claim is made to the words "The Ideal Shampoo" apart from the other features of the mark.
Particular description of goods.—Shampoo Compound.
Claims use since Jan. 15, 1921.

Ser. No. 155,799. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) A. BOURJOIS & CO., INC., New York, N. Y. Filed Nov. 23, 1921.

Particular description of goods.—Toilet Powders and Compacts.
Claims use since January, 1914.

Ser. No. 155,809. (CLASS 38. PRINTS AND PUBLICATIONS.) THE DESIGNER PUBLISHING COMPANY, New York, N. Y. Filed Nov. 23, 1921.

BELROBE

Particular description of goods.—Publication in the Nature of Instruction Sheets or Charts for Dressmakers' Use.
Claims use since Feb. 10, 1921.

Ser. No. 155,855. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM A. BECKWITH, Worcester, Mass. Filed Nov. 25, 1921.

Particular description of goods.—Steel-Hardening Solutions.
Claims use since September, 1919.

Ser. No. 155,887. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HEBERLEIN & CO., A. G., Wattwil, Switzerland. Filed Nov. 25, 1921.

HECOWA

Particular description of goods.—Fabrics of Cotton, Wool, Linen, Silk, or Artificial Silk, and Mixed Fabrics of at Least Two of the Said Textile Materials and Embroideries. All in the Piece.
Claims use since July, 1921.

Ser. No. 155,997. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DAIRY ASSOCIATION CO. INC., Lyndonville, Vt. Filed Nov. 28, 1921.

Particular description of goods.—Medicine for Cows Used in Treating the Following Diseases—Namely, Abortion, Anæmia, Barrenness, Bloating, Caked Bag, Colds, Cowpox, Garget, Gorging, Lost Appetite, Milk Fever, Retained Afterbirth, Blood Purifier, Corrective for Stomach Troubles, Scouring, and to Alleviate Weakness and Depletion of the Generative Organs.
Claims use since Jan. 17, 1921.

Ser. No. 156,002. (CLASS 32. FURNITURE AND UPHOLSTERY.) HESS WARMING & VENTILATING COMPANY, Chicago, Ill. Filed Nov. 28, 1921.

Particular description of goods.—Medicine Cabinets.
Claims use since November, 1921.

Ser. No. 156,034. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE UNIVERSAL SHOE PLATE COMPANY, Cleveland, Ohio. Filed Nov. 28, 1921.

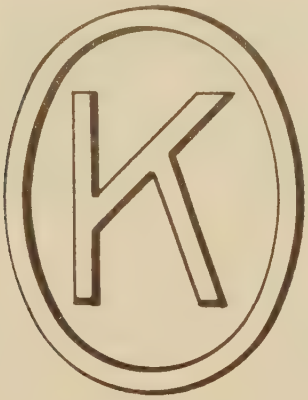
The words "Shoe Plates" are disclaimed.
Particular description of goods.—Shoe Plates.
Claims use since about Jan. 19, 1918.

Ser. No. 156,035. (CLASS 39. CLOTHING.) STAR SUSPENDER CO., Philadelphia, Pa. Filed Nov. 4, 1921.

LONGRIP

Particular description of goods.—Garters.
Claims use since on or about May 1, 1921.

Ser. No. 156,087. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE KENNEDY VALVE MFG. CO., Elmira, N. Y. Filed Nov. 30, 1921.



Particular description of goods.—Fire Hydrants, Indicator Posts, Gate Valves, Check Valves, Globe Valves, Angle Valves, and Backwater Valves.
Claims use since on or about Jan. 1, 1913.

Ser. No. 156,146. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SEVERINO CAPORALE, and doing business as The Balbia Chemical Mfg. Co., Philadelphia, Pa. Filed Dec. 1, 1921.

No claim to the words "Hair Tonic" apart from the rest of the mark shown.
Particular description of goods.—Hair Tonic.
Claims use since about Nov. 28, 1921.

Ser. No. 156,167. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) MOLINE PRESSED STEEL CO., East Moline, Ill. Filed Dec. 1, 1921.

BUDDY "L"

Particular description of goods.—Toy Motor Trucks, Toy Steam Shovels, and Toy Derricks.
Claims use since about July 1, 1921.

Ser. No. 156,186. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE CARRICITE COMPANY, Chicago, Ill. Filed Dec. 2, 1921.

CARRICITE

Particular description of goods.—Substance for Mending Burned-Out Electric Heating Elements; the Substance is a Chemical in the Nature of a Flux.
Claims use since Nov. 1, 1920.

Ser. No. 156,214. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRY COHRS, Hanover, Germany. Filed Dec. 3, 1921.

Comalonga

Particular description of goods.—Pharmaceutical Preparation Used Internally for Promoting the Growth of Hair.
Claims use since Feb. 25, 1921.

Ser. No. 156,217. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CARMELA NIETO DE HERRERA E HIJOS, Habana, Cuba, and New York, N. Y. Filed Dec. 3, 1921.

Beauté
ETERNELLE
DE
Sara Bernard

Particular description of goods.—Perfumes, Toilet Water, Toilet Powders, Lotions, Rouges, Face Creams, Face Bleaches, Hair Dye, and Depilatories.
Claims use since July 1, 1921.

Ser. No. 156,261. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE C. G. CARLSON ICE CREAM COMPANY, Denver, Colo. Filed Dec. 5, 1921.

CARLSON-DIPS

Particular description of goods.—Ice Cream.
Claims use since about Nov. 28, 1921.

Ser. No. 156,267. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ELECTROGENE CHEMICAL CO., Cleveland, Ohio. Filed Dec. 5, 1921.

ELECTROGENE

Particular description of goods. Electrolyte Compound for Batteries.
Claims use since Oct. 15, 1921.

Ser. No. 156,277. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HEAL-O PRODUCTS CO., Pittsburgh, Pa. Filed Dec. 5, 1921.

HOPCO

Particular description of goods.—Salve for Boils, Burns, Blood Poison, or Any Infected Sore.
Claims use since Oct. 10, 1921.

Ser. No. 156,293. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE NATIONAL GAME COMPANY, Toledo, Ohio. Filed Dec. 5, 1921.

Bam-Bee-No

Particular description of goods.—Parlor Baseball.
Claims use since Nov. 25, 1921.

Ser. No. 156,364. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FAIRCHILD BROS. & FOSTER, New York, N. Y. Filed Dec. 7, 1921.

PHILOLAC

Particular description of goods. Fermented Milk to be Used for Dietetic and Therapeutic Uses and Purposes.
Claims use since July 7, 1921.

Ser. No. 156,406. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PASSAIC PRINT WORKS, Passaic, N. J. Filed Dec. 7, 1921.

LOTUS

Particular description of goods.—Cotton Piece Goods.
Claims use since January, 1882.

Ser. No. 156,409. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PASSAIC PRINT WORKS, Passaic, N. J. Filed Dec. 7, 1921.

ORIOD

Particular description of goods.—Cotton Piece Goods.
Claims use since January, 1884.

Ser. No. 156,463. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE PURABRAND PRODUCTS CO., Pleasant Hill, Ohio. Filed Dec. 8, 1921.

DIGESTONE

Particular description of goods.—Medicine for the Treatment of Biliousness, Headache, Indigestion, Nausea, Dizziness, Heartburn, Bloating, Stomach Ache, Gassy Stomach, and Sour Stomach.
Claims use since Nov. 16, 1921.

Ser. No. 156,488. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) GREEN FOUNDRY & FURNACE WORKS, Des Moines, Iowa. Filed Dec. 9, 1921.

COLONIAL

Particular description of goods.—Furnaces for Heating Buildings.
Claims use since October, 1907.

Ser. No. 156,509. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DOUGLAS S. WILSON, Midville, Ga. Filed Dec. 9, 1921.

The picture of the person forming a feature of the mark represents a likeness of the applicant, no claim being made to the words, "Wilson's Special Tonic," apart from the mark shown.

Particular description of goods.—Preparation for Treatment of Bots, Colic, Distemper, and Fever for Horses and Mules.
Claims use since Oct. 25, 1921.

Ser. No. 156,518. (CLASS 38. PRINTS AND PUBLICATIONS.) EDWIN CALLOW, Washington, D. C. Filed Dec. 10, 1921.

TONY THE BARBER

Particular description of goods.—Humorous Newspaper Articles and Humorous Circulars Issued from Time to Time.
Claims use since May, 1913.

Ser. No. 156,623. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DUNLAP MEDICINE CO., Columbus, Ohio. Filed Dec. 13, 1921.

The portrait shown is that of C. H. Dunlap, deceased.
Particular description of goods.—Medicinal Preparation for Catarrh in the Head and Ear, Coughs, Colds, Croup, Diphtheria, Sore Eyes, and Sores of All Kinds; Asthma, Bronchitis, Consumption, Cuts and Burns, and All Diseases of the Throat and Lungs.
Claims use since 1881.

Ser. No. 156,689. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HEIDELBERGER CONFECTIONERY CO., Philadelphia, Pa. Filed Dec. 14, 1921.

HEIDELBERGER
PHILYMADE
SWEETS

No claim being made to the word "Heidelberger" or the word "Sweets" apart from the mark shown.
Particular description of goods.—Candies.
Claims use since Sept. 22, 1921.

Ser. No. 156,692. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) INTERNATIONAL SALT CO. OF NEW YORK, New York, N. Y. Filed Dec. 14, 1921. Under ten-year proviso.

DIAMOND
CAYUGA

Particular description of goods.—Salt.
Claims use since 1890.

Ser. No. 156,695. (CLASS 38. PRINTS AND PUBLICATIONS.) GEORGE B. MONK, San Francisco, Calif. Filed Dec. 14, 1921.

PUBLIC SPIRIT

Particular description of goods.—A Magazine Published at Varying Intervals.
Claims use since Dec. 1, 1921.

Ser. No. 156,696. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MORTON SUNDOUR FABRICS LTD., Dentonhill, Carlisle, England. Filed Dec. 14, 1921.

No claim is made to the exclusive use of the device of the woman washing apart from the rest of the mark.
Particular description of goods.—Cotton Piece Goods.
Claims use since Sept. 1, 1920.

Ser. No. 156,748. (CLASS 45. BEVERAGES, NONALCOHOLIC.) JOS. MIDDLEBY, JR. INC., Boston, Mass. Filed Dec. 15, 1921.

THIRST-AID
FIRST AID FOR YOUR THIRST

No claim being made to the words "First Aid for Your Thirst" apart from the mark shown in the drawing.
Particular description of goods.—Nonalcoholic Maltless Beverages Sold as Soft Drinks and Sirups Therefor.
Claims use since Nov. 17, 1921.

Ser. No. 156,749. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) PATTEN MANUFACTURING COMPANY, Chattanooga, Tenn. Filed Dec. 15, 1921.

Patten
QUALITY

No claim is made to the exclusive use of the word "Quality" apart from mark shown in drawing.
Particular description of goods.—Spark Plugs.
Claims use since August, 1920.

Ser. No. 156,769. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) WALTER WOOD, trading as R. D. Wood & Co., Philadelphia, Pa. Filed Dec. 15, 1921. Under ten-year proviso.

MATHEWS

Particular description of goods.—Fire Hydrants.
Claims use since 1869.

Ser. No. 156,784. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) ECONOMY FUSE AND MANUFACTURING CO., Chicago, Ill. Filed Dec. 16, 1921.

CLEARSITE

Trade-mark "Clearsite" shown in drawing.
Particular description of goods.—Fuses.
Claims use since Nov. 12, 1921.

Ser. No. 156,785. (CLASS 38. PRINTS AND PUBLICATIONS.) THE EVENING NEWS ASSOCIATION, doing business as The Detroit News, Detroit, Mich. Filed Dec. 16, 1921.

EXPERIENCE

NANCY BROWN

The surface lining of trade-mark does not indicate color.
Particular description of goods.—Newspaper Section.
Claims use since Apr. 19, 1919.

Ser. No. 156,788. (CLASS 17. TOBACCO PRODUCTS.) D. C. GLASSER TOBACCO COMPANY, Dubuque, Iowa. Filed Dec. 16, 1921.

Particular description of goods.—Cigars and Chewing Tobacco.
Claims use since July 1, 1878.

Ser. No. 156,825. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CROWN MARGARIN COMPANY, INC., St. Louis, Mo. Filed Dec. 17, 1921.

No claim being made to "Pure as the Sky," "Brand," and "Sterilized Evaporated."
Particular description of goods.—Evaporated Milk.
Claims use since Mar. 30, 1921.

Ser. No. 156,853. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) PEERLESS LIGHT COMPANY, Chicago, Ill. Filed Dec. 17, 1921.

Add-A-Set

Particular description of goods.—Electric-Lighting Sets for Christmas Trees.
Claims use since on or about Oct. 1, 1921.

Ser. No. 156,871. (CLASS 38. PRINTS AND PUBLICATIONS.) M. WITMARK & SONS, New York, N. Y. Filed Dec. 17, 1921.

Particular description of goods.—Sheet Music.
Claims use since 1900.

Ser. No. 156,880. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BRAZILIAN COFFEE HOUSES, INC., New York, N. Y., assignors to Bozan Sales Corporation, New York, N. Y., a Corporation of New York. Filed Dec. 19, 1921.

BOZAN

Particular description of goods.—Coffee.
Claims use since Dec. 5, 1921.

Ser. No. 156,881. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) BERKELEY COMPANY, Providence, R. I. Filed Dec. 19, 1921.

CORONET

Particular description of goods.—Cambrics in the Piece.
Claims use since Jan. 1, 1895.

Ser. No. 156,883. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) E. L. BRUCE COMPANY, Little Rock, Ark., and Memphis, Tenn. Filed Dec. 19, 1921.

CEDALINE

Particular description of goods.—Sheets and Strips of Veneer for Linings for Closets, Chests, and the Like.
Claims use since Feb. 4, 1921.

Ser. No. 156,932. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SOUTHERN OLIVE OIL CO. INC., New York, N. Y. Filed Dec. 19, 1921.

CARUSO

The name "Caruso," also portrait of Enrico Caruso, deceased, has been used continuously.
Particular description of goods.—Olive Oil.
Claims use since July 1, 1921.

Ser. No. 157,048. (CLASS 38. PRINTS AND PUBLICATIONS.) SHAPLEIGH HARDWARE COMPANY, St. Louis, Mo. Filed Dec. 22, 1921.

SHAPLEIGH FREE PRICE SERVICE

Particular description of goods.—Catalogue Published from Time to Time.
Claims use since November, 1921.

Ser. No. 157,171. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE PHYTAMIN CORPORATION, Wilmington, Del., and New York, N. Y. Filed Dec. 27, 1921.

PHYTAMIN

Particular description of goods.—Medicinal Food Product Comprising Vitamins, Organic Phosphorus, Organic Iron, and Other Nutrition Salts for Use as a General Tonic.
Claims use since Dec. 14, 1921.

Ser. No. 157,172. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE PHYTAMIN CORPORATION, Wilmington, Del., and New York, N. Y. Filed Dec. 27, 1921.

Particular description of goods.—Medicinal Food Product Comprising Vitamins. Organic Phosphorus, Organic Iron, and Other Nutrition Salts for Use as a General Tonic.
Claims use since Dec. 14, 1921.

Ser. No. 157,177. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BLAIR B. REILLY, doing business as Cyclone Rat Destroyer Company, Audubon, Iowa. Filed Dec. 27, 1921.

CYCLONE

Particular description of goods.—Rat, Mice, and Squirrel Poison.
Claims use since Nov. 29, 1921.

Ser. No. 157,204. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE AMERICAN CHEMICAL WORKS, San Francisco, Calif. Filed Dec. 28, 1921.

KEMITE

Particular description of goods.—Noble Metal Precipitants.
Claims use since Nov. 23, 1921.

Ser. No. 157,227. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ELLSWORTH LOESCH, doing business as Bowelax Co., Cleveland, Ohio. Filed Dec. 28, 1921.

Bowelax
LAXATIVE TABLETS

No claim being made to the exclusive use of the words "Laxative Tablets" apart from the mark shown.
Particular description of goods.—Laxative Tablets.
Claims use since June 3, 1920.

Ser. No. 157,232. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) PARKER BROTHERS, Salem, Mass. Filed Dec. 28, 1921.

PIT

Particular description of goods.—Card Games.
Claims use since about Feb. 1, 1903.

Ser. No. 157,246. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES D. ABSHEAR, doing business as National Laboratories, San Antonio, Tex. Filed Dec. 29, 1921.

Particular description of goods.—Liver Medicine in the Form of Capsules.
Claims use since Dec. 1, 1916.

Ser. No. 157,267. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) ELECTRICAL & SPECIALTY SUPPLY CO., Chicago, Ill. Filed Dec. 29, 1921.

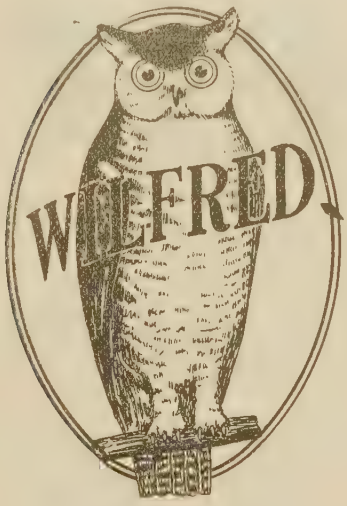
MUSHROOM

Particular description of goods.—Illuminated Traffic Markers for Streets and Roads.
Claims use since Apr. 20, 1921.

Ser. No. 157,283. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DR. SMITH'S STOCK-VIGOR REMEDIES COMPANY, Atlanta, Ga. Filed Dec. 29, 1921.

The picture is that of Dr. R. B. Smith, no claim being made to the words "Stock Vigor" apart from the mark shown.
Particular description of goods.—Stock-Vigor Tonic. Stock-Vigor Laxative, Poultry Tonic, and a General Tonic and Blood Purifier for Stock, Horses, Dogs, and Poultry.
Claims use since Dec. 1, 1921.

Ser. No. 157,290. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAMS & FREDERICK INC., New York, N. Y. Filed Dec. 29, 1921.



Particular description of goods.—Toilet Preparations—viz, Nail-Polish Liquid, Astringent Face Mask, Cuticle Remover, Liquid Rouge, Hair Whitener, Brilliantine, Nail White, Acne Cream, Acne Lotion, Skin Bleach, Bleach and Freckle Cream, Special Tissue Builder, Nail-Polish Paste, Cleansing Cream, Vanishing Cream, Curling Fluid, Cuticle Cream, Scalp Lotion, Almond Lotion, Hair Color Restorer, Astringent Tonic, and Face Lotion.
Claims use since Oct. 20, 1921.

Ser. No. 157,296. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN J. BLACKMAN, doing business as Pepsol Company, Atlantic City, N. J. Filed Dec. 30, 1921.

Particular description of goods.—Tooth Paste.
Claims use since Oct. 10, 1921.

Ser. No. 157,318. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) INDEPENDENT SALT COMPANY, New York, N. Y. Filed Dec. 30, 1921.

Particular description of goods.—Salt.
Claims use since 1900.

Ser. No. 157,321. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JULIAN W. LYON & CO., New York, N. Y. Filed Dec. 30, 1921.

Particular description of goods.—Thymol, Menthol, Chlorophyl, Essential Oils Suitable for the Production of Perfumes, and Synthetic and Aromatic Chemicals Suitable for Perfuming Purposes.
Claims use since Nov. 25, 1921.

Ser. No. 157,323. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LA SOCIETE DES PRODUITS CHIMIQUES COIGNET, Paris, France. Filed Dec. 30, 1921.

No claim being made to the words "Paris" and "Lyon" apart from the mark shown in the drawing.
Particular description of goods.—Phosphorus.
Claims use since Mar. 7, 1890.

Ser. No. 157,358. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) COHN-HALL-MARX CO., New York, N. Y. Filed Dec. 31, 1921.

No claim being made to the exclusive use of the word "Crepe" apart from the mark shown in the drawing.

Particular description of goods.—Cotton Piece Goods.

Claims use since Dec. 21, 1921.

Ser. No. 157,401. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) MOSES ASHCROFT, trading as Moon Chuckle Products Co., Maywood and Chicago, Ill. Filed Jan. 3, 1922.

Particular description of goods.—Nonalcoholic, Noncereal, Maltless Beverage Sold as a Soft Drink and Sirup for Making the Same.

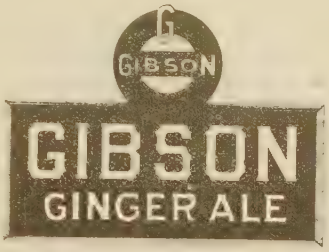
Claims use since Jan. 1, 1917.

Ser. No. 157,403. (CLASS 38. PRINTS AND PUBLICATIONS.) AUDIT BUREAU OF CIRCULATIONS, Chicago, Ill. Filed Jan. 3, 1922.

Particular description of goods.—Statements, Auditors' Reports and Bulletins Issued Periodically.

Claims use since November, 1920.

Ser. No. 157,420. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) WILLIAM J. GIBSON, trading as Crystal Soda Water Works, Uniontown, Pa. Filed Jan. 3, 1922.



No claim being made to the words "Ginger Ale" apart from the mark shown.

Particular description of goods.—Ginger Ale, a Non-alcoholic, Noncereal, Maltless Beverage Sold as a Soft Drink and Sirup for Making the Same.

Claims use since Dec. 1, 1919.

Ser. No. 157,424. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HAMBURGER FACTORIES INC., Chicago, Ill. Filed Jan. 3, 1922.

OPTIMO

Particular description of goods.—Safety Razors, Safety Blades; Combination Tools Including Hammers, Saws, Awls, Tweezers, Corkscrews, Screw Drivers, Tack Pullers; Pocketknives, and Scissors.

Claims use since Jan. 1, 1921.

Ser. No. 157,429. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) JENKINS MANUFACTURING COMPANY, Bloomfield, N. J. Filed Jan. 3, 1922.

VALVO

Particular description of goods.—Valve Handles or Wheels.

Claims use since Dec. 15, 1921.

Ser. No. 157,453. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRED M. SCRUTON, doing business as Vi-to-tab Company, Lewiston, Me. Filed Jan. 3, 1922.

VI·TO·TABS

Particular description of goods.—Medicinal Preparation Used as a Blood Purifier and Flesh and Nerve Builder.

Claims use since Dec. 1, 1921.

Ser. No. 157,471. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) BARRINGTON MANUFACTURING CORPORATION, Dover, Del., and Mt. Vernon, N. Y. Filed Jan. 4, 1922.

Particular description of goods.—Washing Compound.
Claims use since Nov. 12, 1921.

Ser. No. 157,472. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) GEORGE BORGFELDT & CO., New York, N. Y. Filed Jan. 4, 1922.

EXCELSIOR

Particular description of goods.—Electric Household Appliances—Namely, Ovens, Toasters, Frying Pans, Kettles, Stoves, Waffle Bakers, Teapots, Percolators, Milk Boilers, and Electric Sad Irons.
Claims use since about Feb. 1, 1921.

Ser. No. 157,474. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CONNER AND WALTERS COMPANY, INC., Charlotte, N. C. Filed Jan. 4, 1922.

No claim being made to the exclusive use of the words "Dandruff Destroyer" apart from the mark as shown.
Particular description of goods.—Medicated Toilet Preparation for the Treatment of the Hair and Scalp.
Claims use since Nov. 29, 1921.

Ser. No. 157,479. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RENÉ EYBEN, doing business under name and style of Hujarvis, New York, N. Y. Filed Jan. 4, 1922.

Mon Secret

Particular description of goods.—Perfumes.
Claims use since Feb. 11, 1921.

Ser. No. 157,496. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) R. H. MACY AND CO., INC., New York, N. Y. Filed Jan. 4, 1922.

ALCO-LIN

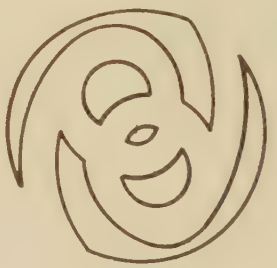
Particular description of goods.—Lotions.
Claims use since Dec. 29, 1921.

Ser. No. 157,516. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WESLEY C. DAVEY, doing business as D. & C. Specialty Co., Hazleton, Pa. Filed Jan. 5, 1922.

O-KIL-O

Particular description of goods.—Powder Insecticide.
Claims use since May 1, 1921.

Ser. No. 157,532. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE PEPSODENT COMPANY, Chicago, Ill. Filed Jan. 5 1922.



Particular description of goods.—Dentifrices.
Claims use since May 6, 1915.

Ser. No. 157,571. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HOUBIGANT, INC., New York, N. Y. Filed Jan. 6, 1922.

LE TEMPS DES LILAS

Particular description of goods.—Perfume Extract and Toilet Water.
Claims use since Dec. 30, 1921.

Ser. No. 157,578. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE LAIRD MANUFACTURING CO. INC., Richmond, Va. Filed Jan. 6, 1922.

RICHMOND MAID

Particular description of goods.—Baking Powder.
Claims use since Sept. 1, 1921.

Ser. No. 157,588. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RUBBER PROCESS CORPORATION, Detroit, Mich. Filed Jan. 6, 1922.

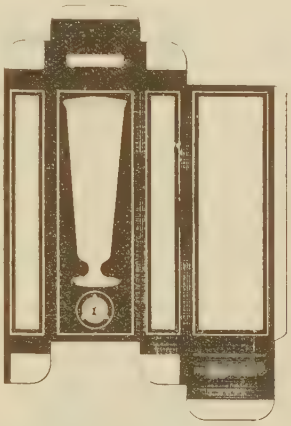
NUBBER

Particular description of goods.—Rubber Preservative.
Claims use since Oct. 1, 1921.

Ser. No. 157,597. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) SAMUEL BERNSTEIN, doing business as Reliable Household Specialties Manufacturing Company, New York, N. Y. Filed Jan. 7, 1922.

Particular description of goods.—Washing Compounds in Powder, Tablets, or Paste Form.
Claims use since Dec. 1, 1921.

Ser. No. 157,668. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HART-SHAW-MILLER DRUG COMPANY, Adrian, Mich. Filed Jan. 9, 1922.



Particular description of goods.—Blood Purifier and Cleanser and System Builder.
Claims use since Jan. 1, 1919.

Ser. No. 157,669. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HART-SHAW-MILLER DRUG COMPANY, Adrian, Mich. Filed Jan. 9, 1922. Under ten-year proviso.

WHITMARSH

Particular description of goods.—Blood Purifier and Cleanser and System Builder.
Claims use since about 1880.

Ser. No. 157,691. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) RE-NU-M MANUFACTURING CO., St. Louis, Mo. Filed Jan. 9, 1922.

RE-NU-M

Particular description of goods.—Belt Dressing.
Claims use since Jan. 5, 1922.

Ser. No. 157,709. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BLANDING AND BLANDING, INC., Providence, R. I. Filed Jan. 10, 1922.

PARALATUM

Particular description of goods.—Liquid Petrolatum Combined with Antiseptic and Germicidal Ingredients for Use in Cases of Constipation.
Claims use since about Dec. 15, 1921.

Ser. No. 157,722. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANK X. MANTSION, Philadelphia, Pa. Filed Jan. 10, 1922.

F. X. M.

Particular description of goods.—Medicinal Preparations for the Treatment of Constipation, Rheumatism, Indigestion, Headache, and All Ailments Due to Auto-intoxication.

Claims use since Dec. 21, 1921.

Ser. No. 157,731. (CLASS 17. TOBACCO PRODUCTS.) GEORGE PAPPANICOLAOU, Washington, D. C., and New York, N. Y. Filed Jan. 10, 1922.

Particular description of goods.—Cigarettes.

Claims use since November, 1921.

Ser. No. 157,732. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE RAISIN PRODUCTS CO. OF AMERICA, New York, N. Y. Filed Jan. 10, 1922.

RAISINIZED IRON

The word "Iron" is disclaimed.

Particular description of goods.—Tablets for the Treatment of Anæmia, Malnutrition, and the Loss of Appetite.

Claims use since December, 1921.

Ser. No. 157,733. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE RAISIN PRODUCTS CO. OF AMERICA, New York, N. Y. Filed Jan. 10, 1922.

RAISINATED IRON

The word "Iron" being disclaimed.

Particular description of goods.—Tablets for the Treatment of Anæmia, Malnutrition, and the Loss of Appetite.

Claims use since December, 1921.

Ser. No. 157,782. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) V. VIVAUDOU, INC., New York, N. Y. Filed Jan. 11, 1922.

Particular description of goods.—Soaps, Shaving Creams in the Form of a Soft Paste, Shaving Powders in the Form of Powdered Soap, and Shaving Sticks.

Claims use since January, 1918.

Ser. No. 157,859. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE TEDDY MULTIPLICATION GAME COMPANY, Cleveland, Ohio. Filed Jan. 12, 1922.

TEDDY'S MULTIPLICATION GAME

The words "Multiplication Game" being disclaimed apart from the mark as thus shown.

Particular description of goods.—Arithmetical Card Game.

Claims use since 1906.

Ser. No. 157,929. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) H. KOHNSTAMM & CO., New York, N. Y. Filed Jan. 14, 1922.

No claim being made to the registration of the word "Soap" and the word "Verilite" apart from the mark shown in the drawing.

Particular description of goods.—Soap.

Claims use since December, 1901.

Ser. No. 157,953. (CLASS 37. PAPER AND STATIONERY.) POWERS PAPER COMPANY, Springfield, Mass. Filed Jan. 14, 1922.

CLEARGRAIN

Particular description of goods.—Writing Paper, Printing Paper, Writing Tablets, Papeteries, Correspondence Envelopes, Typewriter Paper, and Wedding Stationery—Namely, Cards for Invitation, Announcement Cards, and Special-Finished Paper and Envelopes Either in Box or Bulk Form.
Claims use since February, 1920.

Ser. No. 158,023. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) JAMES VERNOR COMPANY, Detroit, Mich. Filed Jan. 16, 1922.

SAY:-" Vernor's -a case!"

Particular description of goods.—Ginger Ale and Ginger-Ale Extract.
Claims use since Apr. 14, 1921.

Ser. No. 158,092. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) PARKWAY BOTTLING CO. INC., Philadelphia, Pa. Filed Jan. 18, 1922.

KISCO

Particular description of goods.—Nonalcoholic, Maltless Beverage Sold as a Soft Drink.
Claims use since Aug. 14, 1921.

Ser. No. 158,125. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) JENNINGS-SHERRY COMPANY, Los Angeles, Calif. Filed Jan. 19, 1922.

ARISTOCRAT

Particular description of goods.—Cleansers, Toilet and Laundry Soaps—Namely, Cocoa Almond Soap, Liquid Soap, Automobile Soap, Green Oil Soap, Soap Powder, Metal Polish, and Transparent Soap.
Claims use since Oct. 1, 1921.

Ser. No. 158,133. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) LUSTREX PRODUCTS CO., Oradell, N. J. Filed Jan. 19, 1922.

LUSTREX

Trade-mark consists of the word "Lustrex."
Particular description of goods.—Furniture Polish.
Claims use since Dec. 1, 1921.

Ser. No. 158,141. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ALEXANDER PAPAZIAN, New York, N. Y. Filed Jan. 19, 1922.

ALEXOCLEAN

Particular description of goods. Soaps.
Claims use since Dec. 15, 1921.

Ser. No. 158,148. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ROLLY CHEMICAL CO., Hastings, Nebr. Filed Jan. 19, 1922.

Rolly's Washday Wonder

Particular description of goods.—Chemical Dirt Solvent in the Nature of a Washing Powder.
Claims use since Mar. 1, 1921.

Ser. No. 158,187. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) ROBERT JOHN, New York, N. Y. Filed Jan. 20, 1922.

HYDROGRAVURE

Particular description of goods.—Metal Plates Carrying Photographic Reproductions for Use in Printing.
Claims use since Dec. 23, 1921.

Ser. No. 158,248. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) NATIONAL STAMPING & ELECTRIC WORKS, Chicago, Ill. Filed Jan. 21, 1922.

WHITE CROSS

Particular description of goods.—Electric Smoothing Irons, Electric Grills, Electric Toasters and Stoves, Electric Hair Dryers, Electric Lanterns, Electric Motors, Electric Hair Curlers, and Electric Fans.
Claims use since 1913.

Ser. No. 158,306. (CLASS 17. TOBACCO PRODUCTS.) TOM G. GREANIAS, Decatur, Ill. Filed Jan. 23, 1922.

TWO KINGS

The shading on the drawing is to indicate red. The words "These Cigars Are Made of the Finest Sumatra Wrapper and Havana Fillers," and the respresentation of bales of tobacco and tobacco leaves, together with the wording appearing on said bales, is hereby disclaimed except in combination with the mark shown.

Particular description of goods.—Cigars.

Claims use since Sept. 1, 1921.

Ser. No. 158,324. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) MARVEL BATTERY CO., INC., St. Paul, Minn. Filed Jan. 23, 1922.

Marvel

Particular description of goods.—Electric Batteries.

Claims use since on or about July 1, 1921.

Ser. No. 158,347. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE WAY-LITE REFLECTOR COMPANY, Cleveland, Ohio. Filed Jan. 23, 1922.

WAY-LITE

Particular description of goods.—Reflectors for Preventing Glare for Electric Headlights.

Claims use since Sept. 1, 1921.

Ser. No. 158,392. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ADDA E. HYATT, doing business as Hyatt and Company, Anderson, Ind. Filed Jan. 24, 1922.

HYATONE

Particular description of goods.—Hair Invigorator and Tonic.

Claims use since July 1, 1921.

Ser. No. 158,405. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) JACOB SCHWARTZ, New York, N. Y. Filed Jan. 24, 1922.

MICRO

Particular description of goods.—Gut, Metal, Silk, and Metal-Covered Strings for Musical Instruments; Violins, Violas, Cellos, Basses, Bows for Musical Stringed Instruments, Bridges for Musical Stringed Instruments, Accordions, Talking-Machine Needles, Chin Rests, Adjusters for the Strings of Musical Stringed Instruments, Saxophone and Clarinet Reeds and Pads.

Claims use since July 1, 1917.

Ser. No. 158,468. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) SIDNEY M. CHASE, doing business as Chase Manufacturing Company, Minneapolis, Minn. Filed Jan. 26, 1922.

Skooter Ski

No claim being made to the word "Ski" apart from the mark shown in the drawing.

Particular description of goods.—Skiis.

Claims use since Jan. 20, 1922.

Ser. No. 158,525. (CLASS 45. BEVERAGES, NONALCOHOLIC.) HURTY-PECK & CO., Indianapolis, Ind. Filed Jan. 27, 1922.

HURTY-PECK HIGH POWER

Particular description of goods.—Flavoring Sirups for Nonalcoholic Maltless Beverages.

Claims use since March, 1919.

Ser. No. 158,573. (CLASS 39. CLOTHING.) GREGORY & READ COMPANY, Lynn, Mass. Filed Jan. 28, 1922.

Particular description of goods.—Women's Boots and Shoes Made Wholly or in Part of Leather and Cloth.
Claims use since Dec. 21, 1921.

Ser. No. 158,604. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE DAVIES-YOUNG SOAP COMPANY, Dayton, Ohio. Filed Jan. 30, 1922.

Buckeye

Particular description of goods.—Green Soap, Potash Soap, Base Soap, Vegetable-Oil Soap, Pine-Oil Disinfectant Soap, Dry-Cleaning Soap, and an Oil-Soap Cleanser.
Claims use since about 1905.

Ser. No. 158,658. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) VALENTINE & COMPANY, New York, N. Y. Filed Jan. 30, 1922.

Particular description of goods.—Varnishes, Varnish Stains, Paint Enamels, Ready Mixed and Paste Paints.
Claims use since Jan. 5, 1922.

Ser. No. 158,690. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) OLIVER SHERWOOD CO., San Francisco, Calif. Filed Jan. 31, 1922.

Olivite

Particular description of goods.—Comparatively Hard and Nonbreakable Material Suitable for Making Various Articles of Manufacture. Said Material Being a Composition of Matter Essentially of Rubber and Made by a Secret Formula.
Claims use since Nov. 15, 1921.

Ser. No. 158,693. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) WIRELESS SPECIALTY APPARATUS COMPANY, New York, N. Y., and Boston, Mass. Filed Jan. 31, 1922.

Faradon
FOR SERVICE

No claim is made to the exclusive independent use of the words "For Service" appearing on the flourish beneath the described mark "Faradon."
Particular description of goods.—Electrical Condensers.
Claims use since about Dec. 1, 1921.

Ser. No. 158,739. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE WHIP-O-TOP COMPANY, New Britain, Conn. Filed Feb. 1, 1922.

The lines in trade-mark show colors blue and red.
Particular description of goods.—Tops.
Claims use since Jan. 14, 1922.

Ser. No. 158,771. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) GOBLINTOY COMPANY, Chicago, Ill. Filed Feb. 2, 1922.

GOBLINTOY

Particular description of goods.—Toy Air Guns (for Shooting Air Balls.)
Claims use since Jan. 19, 1922.

Ser. No. 158,830. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) V. HENNING & SONS, Brooklyn, N. Y. Filed Feb. 3, 1922.

-HEN-

Particular description of goods.—Babbitt Metals of All Kinds, Yellow Ingot Brass of All Kinds, Composition or Red Brass Ingots of All Kinds, Phosphor-Bronze Ingot, Manganese-Bronze Ingot, White Bronze Ingot, Electrotype Metal, Linotype Metal, Intertype Metal, Stereotype Metal, Monotype Metal; Spelter (Also Called Slab Zinc), Bar Solder (All Mixtures); Pig, Block, and Bar Lead; Bar Tin, White Casting Metal, Aluminum Ingot.
Claims use since January, 1919.

Ser. No. 158,848. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) BUETTELL BROTHERS COMPANY, Dubuque, Iowa. Filed Feb. 4, 1922.

Particular description of goods.—Baseballs, Baseball Bats, Baseball Gloves, and Footballs.
Claims use since about June, 1892.

Ser. No. 158,947. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) PENN LEATHER PRESERVING CO., Pittsburgh, Pa. Filed Feb. 6, 1922.

IT DOES IT

Particular description of goods.—Compound for Preserving and Waterproofing Shoes and Leather.
Claims use since Oct. 15, 1921.

Ser. No. 158,954. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) ORLEY CLAYTON TUTTLE, Old Forge, N. Y. Filed Feb. 6, 1922.

DEVIL

BUGS

No claim being made to the word "Bugs" apart from the mark shown.
Particular description of goods.—Artificial Bait.
Claims use since Apr. 1, 1918.

Ser. No. 158,959. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) V. VIVAUDOU, INC., New York, N. Y. Filed Feb. 6, 1922.

Mavis

Particular description of goods.—Powder Puffs, Face Brushes, Nailbrushes, Toothbrushes, Eyebrow Brushes, Hairbrushes, Shaving Brushes, Hat Brushes, Clothes Brushes, Shoe Brushes, Stove Brushes, Floor Brushes, Paintbrushes, Phonograph-Record Brushes, Brooms, Whisk Brooms, Household Dusters, and Squeegee Windshield Cleaners.
Claims use since Jan. 20, 1922.

Ser. No. 158,960. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) JOHN WALSH, and doing business as Shade-O Co., Beverly Farms, Mass. Filed Feb. 6, 1922.

Particular description of goods.—Waterproof Paint for Coating Glass.
Claims use since Jan. 27, 1922.

Ser. No. 158,981. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) INDUSTRIAL PAINT COMPANY, Leetsdale Borough and Fair Oaks Borough, Pa. Filed Feb. 7, 1922.

No claim being made to the use of the words "Bonding Coat" and "China Black" apart from the mark shown in the drawing.

Particular description of goods.—Dry Paste and Ready-Mixed Paints.

Claims use since Dec. 1, 1921.

Ser. No. 159,133. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) W. & H. WALKER, INC., Pittsburgh, Pa. Filed Feb. 6, 1922.

CONUTOIL

Particular description of goods.—Soap.

Claims use since June 1, 1919.

Ser. No. 159,135. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) BERGOUGNAN RUBBER CORPORATION, Wilmington, Del., and Trenton, N. J. Filed Feb. 10, 1922.

No claim being made to the words and letters "Trenton, N. J." and "Tires" apart from the mark shown. The drawing is lined to represent yellow.

Particular description of goods.—Rubber Tires.

Claims use since September, 1919.

Ser. No. 159,168. (CLASS 39. CLOTHING.) THE MANHATTAN RUBBER MFG. CO., Passaic, N. J. Filed Feb. 10, 1922.

MASTER

Particular description of goods.—Rubber Soles and Rubber Heels.

Claims use since about Feb. 1, 1922.

Ser. No. 159,282. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) OFF'N'ON CHAIN CORPORATION, New York, N. Y. Filed Feb. 13, 1922.

OFF 'N' ON

Particular description of goods.—Automobile Tire Chains.

Claims use since about Dec. 28, 1921.

Ser. No. 159,339. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) BETTALYTE INCANDESCENT LAMP CO., INC., New York, N. Y. Filed Feb. 15, 1922.

No claim being made to the representation of an electric lamp apart from the mark shown in the drawing.

Particular description of goods.—Incandescent Electric Lamps.

Claims use since Sept. 23, 1921.

Ser. No. 159,496. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE CAPEWELL HORSE NAIL COMPANY, Hartford, Conn. Filed Feb. 18, 1922.

VINCITORE

Particular description of goods.—Horseshoe Nails

Claims use since Feb. 8, 1922.

Ser. No. 159,497. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE CAPEWELL HORSE NAIL COMPANY, Hartford, Conn. Filed Feb. 18, 1922.

VAINQUEUR

Particular description of goods.—Horseshoe Nails.
Claims use since Feb. 8, 1922.

Ser. No. 159,738. (CLASS 37. PAPER AND STATIONERY.) JOS. WEIL & SONS, INC., Chicago, Ill. Filed Feb. 23, 1922.

Particular description of goods.—Toilet Paper.
Claims use since about Nov. 15, 1917.

Ser. No. 159,777. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) AIR-O-PHONE CORPORATION, New York, N. Y. Filed Feb. 25, 1922.

No claim being made to the representation of wireless apparatus.
Particular description of goods.—Wireless Apparatus—Namely, Receiving and Transmitting Sets.
Claims use since Feb. 9, 1922.

Ser. No. 159,972. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ADOLPH KASTOR & BROS., New York, N. Y. Filed Feb. 28, 1922.

GOLD COIN

Particular description of goods.—Razors and Scissors.
Claims use since Sept. 25, 1912.

Ser. No. 160,771. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) NEPTUNE METER COMPANY, New York, N. Y. Filed Mar. 16, 1922.

RED TOP

Particular description of goods.—Relief Valves.
Claims use since about July 1, 1921.

Ser. No. 160,773. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE NEWELL MFG. CO., INC., Ogdensburg, N. Y. Filed Mar. 16, 1922.

SIMPLETTE

Particular description of goods.—Curtain Fixtures, Particularly Curtain Rods.
Claims use since Aug. 21, 1921.

Ser. No. 161,436. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) INTERSTATE SHADE CLOTH CO., Hoboken, N. J. Filed Mar. 29, 1922.

Rolrite

Particular description of goods.—Shade Rollers.
Claims use since Sept. 7, 1921.

Ser. No. 162,097. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ELMER BARNETT, Waco, Tex. Filed Apr. 11, 1922.

BARNETT'S
TONELAX

Particular description of goods.—A General Tonic for Medicinal Purposes.
Claims use since Jan. 1, 1915.

TRADE-MARK REGISTRATIONS GRANTED

[ACT OF FEBRUARY 20, 1905.]

MAY 9, 1922.

154,775. CERTAIN NAMED CANDIES AND CANDY COATED NUTS. Ambassador Chocolate Company, Baltimore, Md.
Filed October 1, 1921. Serial No. 153,576. PUBLISHED FEBRUARY 7, 1922.

154,776. CORN SIRUP FOR FOOD PURPOSES. American Hominy Company, Indianapolis, Ind., and Decatur, Ill.
Filed July 19, 1921. Serial No. 150,581. PUBLISHED FEBRUARY 7, 1922.

154,777. FRESH CITRUS FRUITS. Bastanchury Ranch Company, Fullerton, Calif.
Filed September 28, 1921. Serial No. 153,435. PUBLISHED FEBRUARY 7, 1922.

154,778. COFFEE. Brewster, Gordon & Co. Inc., Rochester, N. Y.
Filed September 19, 1921. Serial No. 153,067. PUBLISHED FEBRUARY 7, 1922.

154,779. SALTED PEANUTS, PEANUT BUTTER IN JARS, CHOCOLATE BARS, AND PEANUT SANDWICHES. Edward T. Bunch, Philadelphia, Pa.
Filed June 6, 1921. Serial No. 148,692. PUBLISHED FEBRUARY 21, 1922.

154,780. FONDANT OR BASE FOR CANDY AND OTHER LIKE CONFECTIONS. William L. Caswell, Old Orchard, Me.
Filed November 22, 1920. Serial No. 139,959. PUBLISHED FEBRUARY 7, 1922.

154,781. COFFEE. Charles I. Cook, Menominee, Mich.
Filed October 1, 1921. Serial No. 153,588. PUBLISHED FEBRUARY 7, 1922.

154,782. COAL. Corona Coal Company, Birmingham, Ala.
Filed January 28, 1922. Serial No. 158,563. PUBLISHED MARCH 7, 1922.

154,783. FRESH CITRUS FRUITS—NAMELY, ORANGES. Covina Orange Growers Association, Covina, Calif.
Filed October 3, 1921. Serial No. 153,644. PUBLISHED FEBRUARY 7, 1922.

154,784. FRESH GRAPES. Dinuba Fruit Growers Company, Dinuba, Calif.
Filed October 8, 1921. Serial No. 153,874. PUBLISHED FEBRUARY 7, 1922.

154,785. ELECTROTYPES. Ralph M. Eisenberg, New York, N. Y.
Filed July 21, 1921. Serial No. 150,739. PUBLISHED DECEMBER 27, 1921.

154,786. CHOCOLATE. Eline's Incorporated, Milwaukee, Wis.
Filed December 2, 1921. Serial No. 156,190. PUBLISHED JANUARY 3, 1922.

154,787. FRESH DECIDUOUS FRUITS—NAMELY, MALAGAS. Fowler Grape Growers Association, Fowler, Calif.
Filed October 8, 1921. Serial No. 153,879. PUBLISHED FEBRUARY 7, 1922.

154,788. COFFEE FLAVOR IN SOLID, POWDERED, AND LIQUID FORM. Harry L. Friend, Boston, Mass.
Filed March 2, 1921. Serial No. 144,225. PUBLISHED FEBRUARY 7, 1922.

154,789. COFFEE FLAVOR IN SOLID, POWDERED, AND LIQUID FORM. Harry L. Friend, Boston, Mass.
Filed March 2, 1921. Serial No. 144,226. PUBLISHED FEBRUARY 7, 1922.

154,790. FRESH DECIDUOUS FRUITS—NAMELY, APPLES. W. B. Glafke Co., Portland, Oreg.
Filed October 3, 1921. Serial No. 153,658. PUBLISHED FEBRUARY 7, 1922.

154,791. HAMS, BOILED HAMS, SKINNED HAMS, SLICING HAMS, PICNICS, SLICING PICNICS, BACON, AND BACON SQUARES. E. Godel & Sons, Peoria, Ill.
Filed April 6, 1921. Serial No. 145,782. PUBLISHED FEBRUARY 7, 1922.

154,792. COAL AND WOOD HEATING AND COOKING STOVES, COAL AND WOOD RANGES, AND HEATING FURNACES. Haynes-Langenberg Manufacturing Co., St. Louis, Mo.
Filed March 26, 1921. Serial No. 145,265. PUBLISHED DECEMBER 27, 1921.

154,793. ICE CREAM. Hoefler Ice Cream Company, Buffalo, N. Y.
Filed October 3, 1921. Serial No. 153,662. PUBLISHED FEBRUARY 7, 1922.

154,794. UNIMPREGNATED DUSTERS. Keystone Sanitary Supply Company, Greensburg, Pa.
Filed December 19, 1921. Serial No. 156,906. PUBLISHED FEBRUARY 28, 1922.

154,795. A SAUCE AND INGREDIENT FOR SAUCES USED ALSO IN THE PREPARATION OF CREAMS, VEGETABLES, AND SOUPS. La Societe Anonyme des Amidonnerie & Rizerie de France, Marquette-Lille, France.
Filed August 2, 1921. Serial No. 151,276. PUBLISHED FEBRUARY 7, 1922.

154,796. CHOCOLATES AND CANDIES. Littlefield & Steere Co., Knoxville, Tenn.
Filed June 28, 1921. Serial No. 149,761. PUBLISHED FEBRUARY 7, 1922.

154,797. POTATOES IN THEIR NATURAL STATE. J. P. Milloglav, Los Angeles, Calif.
Filed July 21, 1921. Serial No. 150,761. PUBLISHED FEBRUARY 7, 1922.

154,798. LARD. John Morrell & Company, Ottumwa, Iowa.
Filed May 7, 1921. Serial No. 147,362. PUBLISHED FEBRUARY 7, 1922.

154,799. CANDIES, FANCY ICES, AND CAKES. John H. Murray, Boston, Mass.
Filed December 1, 1921. Serial No. 156,164. PUBLISHED FEBRUARY 7, 1922.

154,800. FOOD-FLAVORING EXTRACT. Mystol Manufacturing Co., Glens Falls, N. Y.
Filed October 4, 1921. Serial No. 153,740. PUBLISHED FEBRUARY 7, 1922.

154,801. CANDIES. The Nunnally Company, Atlanta, Ga.
Filed September 28, 1921. Serial No. 153,468. PUBLISHED FEBRUARY 7, 1922.

154,802. COFFEE, TEA, AND COCOA. A. L. Parks Tea Company, Boston, Mass.
Filed October 3, 1921. Serial No. 153,688. PUBLISHED FEBRUARY 7, 1922.

154,803. LARD SUBSTITUTE COMPOSED OF COTTONSEED OIL AND OLEO-BEEF-STEARIN. F. E. PATRICK-YOUNG CO., Richmond, Va.
Filed July 29, 1918. Serial No. 112,405. PUBLISHED MARCH 2, 1920.

154,804. YEAST USED IN THE PREPARATION OF BREAD. CHASE PRIEST, Grant, Iowa.
Filed May 26, 1921. Serial No. 148,295. PUBLISHED FEBRUARY 7, 1922.

154,805. CANE SIRUP. RODDENBERY BROS., Cairo, Ga.
Filed October 3, 1921. Serial No. 153,692. PUBLISHED FEBRUARY 7, 1922.

154,806. COFFEE. SCHERER & FIX, Utica, N. Y.
Filed August 27, 1919. Serial No. 122,065. PUBLISHED FEBRUARY 7, 1922.

154,807. LARDS. THE WM. SCHLUDERBERG-T. J. KURDLE CO., Baltimore, Md.
Filed March 8, 1921. Serial No. 144,479. PUBLISHED SEPTEMBER 27, 1921.

154,808. WHITE MINERAL OIL. STANDARD OIL COMPANY, (Incorporated in New Jersey,) Bayonne, N. J., and New York, N. Y.
Filed November 4, 1921. Serial No. 155,034. PUBLISHED JANUARY 31, 1922.

154,809. HOG MEAT OR PORK, THE FATBACK OF THE HOG ABOVE THE SPINAL COLUMN EXTENDING FROM THE SHOULDER TO THE HIPS. SWIFT AND COMPANY, Chicago, Ill.
Filed September 19, 1921. Serial No. 153,116. PUBLISHED FEBRUARY 7, 1922.

154,810. CANDY. ALFRED THODE, Brooklyn, N. Y.
Filed June 2, 1921. Serial No. 148,565. PUBLISHED JANUARY 24, 1922.

154,811. PREPARED CHOCOLATE FOR TABLE USE. MANUEL Z. TORREÑO, San Antonio, Tex.
Filed February 12, 1921. Serial No. 143,519. PUBLISHED FEBRUARY 7, 1922.

154,812. CANNED FISH. A/S TRONDHJEM CANNING AND EXPORT CO., Trondhjem, Norway.
Filed November 26, 1920. Serial No. 140,219. PUBLISHED FEBRUARY 7, 1922.

154,813. CANDIES. THE VIRGINIA DARE COMPANY, Baltimore, Md.
Filed September 30, 1921. Serial No. 153,574. PUBLISHED FEBRUARY 7, 1922.

154,814. CANDY. THE VOEGELE & DINNING CO., Mansfield, Ohio.
Filed October 11, 1921. Serial No. 154,003. PUBLISHED FEBRUARY 7, 1922.

154,815. FRESH DECIDUOUS FRUITS. WENATCHEE SKOOKUM GROWERS, Wenatchee, Wash.
Filed October 17, 1921. Serial No. 154,254. PUBLISHED FEBRUARY 7, 1922.

154,816. CANDY. WIRTH CHOCOLATE COMPANY, Boston, Mass.
Filed September 28, 1921. Serial No. 153,490. PUBLISHED FEBRUARY 7, 1922.

154,817. PARTIALLY-DRIED AND DRIED PRUNES. HARRY N. WOOD, Boise, Idaho.
Filed September 29, 1921. Serial No. 153,530. PUBLISHED FEBRUARY 7, 1922.

TRADE-MARK REGISTRATIONS GRANTED

[ACT OF MARCH 19, 1920, SEC. 1 (b)].

MAY 9, 1922.

THESE REGISTRATIONS ARE NOT SUBJECT TO OPPOSITION.

154,818. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) THE ALLEN AUTO SPECIALTY CO., New York, N. Y. Filed Dec. 10, 1921. Serial No. 156,514.

ALLEN

Particular description of goods.—Automobile-Tire Covers.
Claims use since February, 1906.

154,819. (CLASS 38. PRINTS AND PUBLICATIONS.) AMERICAN UNIVERSITY OF COMMERCE, Chicago, Ill. Filed Apr. 11, 1921. Serial No. 145,988.

American University of Commerce

Particular description of goods.—Manuals, Lesson Sheets and Pamphlets, and Answer Sheets.
Claims use since November, 1919.

154,820. (CLASS 32. FURNITURE AND UPHOLSTERY.) ASTRA BENT WOOD FURNITURE CO., INC., New York, N. Y. Filed Feb. 18, 1921. Serial No. 143,733.

FISCHEL

Particular description of goods.—Bent Wood Furniture.
Claims use since 1903.

154,821. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BAKER ICE CREAM COMPANY, Cleveland, Ohio. Filed Dec. 22, 1921. Serial No. 157,017.

HYGRADE

Particular description of goods.—Ice Cream and Ices.
Claims use since about June 1, 1919.

154,822. (CLASS 39. CLOTHING.) GEORGE C. BATCHELLER & Co., New York, N. Y. Filed Oct. 23, 1920. Serial No. 138,704.

TRU FIT

Particular description of goods.—Corsets and Underwaists.
Claims use since about Sept. 1, 1920.

154,823. (CLASS 12. CONSTRUCTION MATERIALS.) HERBERT J. BREEZE, Portland, Oreg. Filed Nov. 8, 1921. Serial No. 155,135.

Particular description of goods.—Wooden Flooring.
Claims use since August, 1920.

154,824. (CLASS 33. GLASSWARE.) ECLIPSE LIGHT COMPANY, New York, N. Y., assignor to London Lightingwares Corporation, a Corporation of New York. Filed Oct. 24, 1921. Serial No. 154,494.

LIGHTINGWARES

Particular description of goods.—Bowls, Shades, Chimneys, Canopies, Fitters, Domes, Reflectors, Hangers, Fringes, and Prisms, All Made of Glass.
Claims use since July 1, 1920.

154,825. (CLASS 37. PAPER AND STATIONERY.) CHRISTIAN H. EIBEL, New York, N. Y. Filed Dec. 27, 1921. Serial No. 157,143.

"No-fault"

Particular description of goods.—Fountain, Stylographic, and Common Writing Pens and Holders, Pencils, and Crayons.
Claims use since 1908.

154,826. (CLASS 37. PAPER AND STATIONERY.) GEORGE B. HURD & CO., New York, N. Y. Filed Aug. 24, 1921. Serial No. 152,127.

Lawn Finish

Particular description of goods.—Writing Paper and Correspondence Envelopes.
Claims use since December, 1907.

154,827. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) INGERSOLL-RAND COMPANY, Jersey City, N. J., and New York, N. Y. Filed Jan. 5, 1922. Serial No. 157,527.

ANTIPEEL

Particular description of goods.—Hose Composed of Rubber and Fabric.
Claims use since about the 6th day of June, 1903.

154,828. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) INTERNATIONAL INDIA RUBBER CORPORATION, South Bend, Ind. Filed Apr. 3, 1920. Serial No. 130,593.

ODELL

Particular description of goods.—Rubber Tires.
Claims use since on or about Apr. 1, 1919.

154,829. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) JESSE CLAUDE JOHNSON, San Francisco, Calif. Filed July 18, 1921. Serial No. 150,537.

S. T. JOHNSON CO.
OIL BURNERS

Particular description of goods.—Low-Pressure-Air Crude-Fuel-Oil Burning Equipment, Whirlwind Bake-Oven Burners, Low-Pressure-Air Burners, Steam Atomizing Burners, Swing-Joint Bake-Oven Burners, Natural-Draft Burners, and Rotary Crude-Fuel-Oil Burners.
Claims use since June 1, 1906.

154,830. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LAWNDALE WHOLESALE GROCERY COMPANY, Chicago, Ill. Filed Nov. 12, 1921. Serial No. 155,311.

OGDEN

Particular description of goods.—Canned Tomatoes and Fruit Preserves.
Claims use since March, 1916.

154,831. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) HAROLD M. LEH, Atlantic City, N. J. Filed Mar. 30, 1921. Serial No. 145,464.

Particular description of goods.—Cleaning and Polishing Composition for Removing and Preventing Fog on Glass.
Claims use since Dec. 20, 1920.

154,832. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) AXEL T. LINDBERG, Providence, R. I. Filed Nov. 25, 1921. Serial No. 155,897.

NO-GRIT

Particular description of goods.—Soap Powder.
Claims use since May, 1920.

154,833. (CLASS 43. THREAD AND YARN.) MAX POLLACK & CO., INC., New York, N. Y. Filed Apr. 13, 1921. Serial No. 146,134.

MANILA

Particular description of goods.—Sewing Threads.
Claims use since 1906.

154,834. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) MEINECKE & COMPANY, New York, N. Y. Filed Jan. 3, 1921. Serial No. 141,791.

PERFECTION

Particular description of goods.—Druggists' Sundries as Follows: Ice Bags, Male Urinals, Fountain Syringes, Dressing Basins, Irrigator Holders, and Hypodermic Syringe Needles.
Claims use on ice bags since 1902, male urinals since 1905, fountain syringes and dressing basins since 1909, irrigator holders since 1915, and hypodermic syringe needles since 1916.

154,835. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) METAL HOSE & TUBING CO., INC., Brooklyn, N. Y. Filed Mar. 8, 1920. Serial No. 129,395.

Particular description of goods.—Fabric-Covered Rubber Hose with Metal Lining.
Claims use since Jan. 20, 1920.

154,836. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) MINNEAPOLIS DRUG COMPANY, Minneapolis, Minn. Filed Jan. 25, 1922. Serial No. 158,430.

DEXTER

Particular description of goods.—Celluloid Combs, Hard-Rubber Combs, Metal Combs Not of Precious Metal, Horn Combs, Shoehorns and Buttonhooks Not of Precious Metal.
Claims use since 1915.

154,837. (CLASS 37. PAPER AND STATIONERY.) NATIONAL PAPER PRODUCTS COMPANY, San Francisco, Calif. Filed July 20, 1921. Serial No. 150,701.

NO-WASTE

Particular description of goods.—Toilet Tissue Paper.
Claims use since about Apr. 1, 1916.

154,838. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) A. L. PARKS TEA COMPANY, Boston, Mass. Filed Oct. 8, 1921. Serial No. 153,892.

NEW ENGLAND BLEND

Particular description of goods.—Coffee.
Claims use since Jan. 1, 1906.

154,839. (CLASS 37. PAPER AND STATIONERY.) PARSONS PAPER COMPANY, Holyoke, Mass. Filed Nov. 22, 1921. Serial No. 155,771.

MERCANTILE

Particular description of goods.—Printing and Writing Paper.
Claims use since September, 1914.

154,840. (CLASS 37. PAPER AND STATIONERY.) B. D. RISING PAPER COMPANY, Housatonic, Mass. Filed Jan. 13, 1921. Serial No. 142,234.

HOUSATONIC

Particular description of goods.—Bond, Linen, Ledger, Bristol, Wedding, Index, and Writing Papers Generally.
Claims use since 1900.

154,841. (CLASS 37. PAPER AND STATIONERY.) B. D. RISING PAPER COMPANY, Housatonic, Mass. Filed Jan. 13, 1921. Serial No. 142,235.

BARRINGTON

Particular description of goods.—Bond, Linen, Ledger, Bristol, Wedding, Index, and Writing Papers Generally.
Claims use since 1900.

154,842. (CLASS 37. PAPER AND STATIONERY.) B. D. RISING PAPER COMPANY, Housatonic, Mass. Filed Jan. 13, 1921. Ser. No. 142,236.

DANISH

Particular description of goods.—Bond, Linen, Ledger, Bristol, Wedding, Index, and Writing Papers Generally.
Claims use since 1900.

154,843. (CLASS 37. PAPER AND STATIONERY.) SANFORD PEN COMPANY, INC., Brooklyn, N. Y. Filed Jan. 21, 1922. Serial No. 158,254.

GRAVITY STYLO

Particular description of goods.—Stylographic Pens.
Claims use since June 24, 1908.

154,844. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) L. C. SMITH & BROS. TYPEWRITER CO., Syracuse, N. Y. Filed Dec. 23, 1921. Serial No. 157,083.

Particular description of goods.—Typewriting Machines and Parts Thereof.
Claims use since Mar. 28, 1904.

154,845. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) SMITH RUBBER & TIRE CO. INC., Garfield, N. J. Filed Jan. 17, 1922. Ser. No. 158,058.

SMITH CORD

Particular description of goods.—Rubber Automobile Tires.
Claims use since Oct. 20, 1920.

154,846. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) STANDARD OIL COMPANY (Incorporated in New Jersey), Bayonne, N. J., and New York, N. Y. Filed Dec. 5, 1921. Serial No. 156,311.

STANDARD OIL COMPANY (NEW JERSEY)

Particular description of goods.—Harness Oil, Harness-Blacking Oil, Harness-Polishing Oil, Harness-Preserving Oil, Leather-Polishing Oil, Neat's-Foot Oil, and Paraffin Wax for Washing Purposes.
Claims use for more than one year prior to the date of filing of this application.

154,847. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE STANDARD RED CEDAR CHEST CO., Altavista, Va. Filed June 7, 1921. Serial No. 148,821.

"STANDARD"

Particular description of goods.—Cedar Chests.
Claims use since July 1, 1912.

154,848. (CLASS 39. CLOTHING.) TRUE SHAPE HOSIERY CO., Philadelphia, Pa. Filed May 9, 1921. Serial No. 147,477.

Particular description of goods.—Hosiery.
Claims use since February, 1908.

154,849. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) UP-TO-DATE CANDY MFG. CO., New York, N. Y. Filed Feb. 12, 1920. Serial No. 128,333.

UP TO DATE

Particular description of goods.—Candy.
Claims use since September, 1900.

154,850. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) THE VICTOR RUBBER COMPANY, Springfield, Ohio. Filed Jan. 27, 1922. Serial No. 158,546.

SPRINGFIELD

Particular description of goods.—Pneumatic-Tire Casings and Inner Tubes Therefor, of Rubber or Rubber and Fabric, for Automobiles and Other Vehicles.
Claims use since on or about June 1, 1916.

154,851. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) THE WARREN FEATHERBONE COMPANY, Three Oaks, Mich. Filed Dec. 3, 1921. Serial No. 156,246.

"Warren's"

Particular description of goods.—Ancher Bone, Featherbone, Collarbone, Featherbone, Horsehairbone, Combined Horsehair and Featherbone, Hook and Eye Featherbone, Quillbone, Skirtbone, Featherbone Tape, Piping Bone, Tunicbone, Tubular Cording, Waistbone, Featheredge Braid, Filet-Braid, Lingerie Braid, Novelty Braid, Rick-Rack Braid, Turtleback Braid, Collar Supports, Collar Foundations, Stock Foundations, Ruching Supports, Collar Interlining, Collar Frames, Collar and Ruching Uprights, Collar Flares, Hip Hoops, Girdle Foundations, Fabric Belting, Boned Belting, Crinolette, Hair Curlers, Hair Clasps, Bias Facing, Lacings, Tape, Weighted Tape.
Claims use since Feb. 24, 1909.

154,852. (CLASS 37. PAPER AND STATIONERY.) WESTERN TABLET AND STATIONERY COMPANY, St. Joseph, Mo. Filed Dec. 29, 1921. Serial No. 157,288.

HYTONE

Particular description of goods.—Writing Tablets.
Claims use since Jan. 1, 1907.

154,853. (CLASS 37. PAPER AND STATIONERY.) WHITE-WASHBURNE COMPANY, INC., Hinsdale, N. H. Filed Jan. 26, 1922. Serial No. 158,509.

HOLLYWOOD

Particular description of goods.—Toilet Paper.
Claims use since Dec. 8, 1914.

LABELS

REGISTERED MAY 9, 1922.

24,330.—*Title:* "CAFFEER." (For Nonalcoholic, Noncereal, Maltless Beverages Sold as Soft Drinks.) S. & J. AUGERT BROS., Philadelphia, Pa., and Atlantic City, N. J. Filed April 1, 1922.

24,331.—*Title:* "TRUSCO THE SUPERIOR LUBRICATING OIL." (For Lubricating Oils.) GEORGE J. BURNS, Youngstown, Ohio. Filed February 25, 1922.

24,332.—*Title:* "CARMOTE RED SEAL FLOOR ENAMEL." (For Carmote Red Seal Floor Enamel.) CARPENTER-MORTON CO., Boston, Mass. Filed March 27, 1922.

24,333.—*Title:* "CACKLE-MORE." (For Poultry Food.) JOHN A. BUTLER, Denver, Colo. Filed August 11, 1921.

24,334.—*Title:* "ANADORA." (For Cigars.) PABLO CARCEL, New York, N. Y. Filed March 30, 1922.

24,335.—*Title:* "BERKSHIRE PORK SAUSAGE MADE AND GUARANTEED BY WM. H. CLARK & SONS, NORFOLK, VIRGINIA." (For Sausages.) WM. H. CLARK & SONS, Norfolk, Va. Filed March 27, 1922.

24,336.—*Title:* "DE LONG HAIR NET." (For Hair Nets.) DE LONG HOOK & EYE CO., Philadelphia, Pa. Filed April 3, 1922.

24,337.—*Title:* "'ROLL' YOUR LABEL TROUBLES AWAY." (For Gummed Labels in Rolls.) EASTERN PIN TICKET & TAG CO., Perkasie, Pa. Filed April 3, 1922.

24,338.—*Title:* "STASO." (For Shoe Laces.) W. E. ELLIS COMPANY, Haverhill, Mass. Filed March 27, 1922.

24,339.—*Title:* "FARMERS' HOME VETERINARY CABINET." (For Veterinary Cabinets.) FARMERS' VETERINARY SERVICE, INC., Kingston, N. Y. Filed March 21, 1922.

24,340.—*Title:* "MY SWEETIE." (For Candies.) THE MAX GLICK COMPANY, Cleveland, Ohio.) Filed March 22, 1922.

24,341.—*Title:* "YEAST O DEPILATORY." (For a Depilatory.) WILLIAM TYLER GREEN, Summit, N. J. Filed March 20, 1922.

24,342.—*Title:* "FIVE FRUIT." (For a Fruit Sirup.) H. H. HAY SONS, Portland, Me. Filed March 22, 1922.

24,343.—*Title:* "HELLER'S 'FANCY-PASTRY' PUDDING POWDER." (For Paper Cartons Containing Heller's Fancy-Pastry Pudding Powders.) B. HELLER & COMPANY, Chicago, Ill. Filed April 3, 1922.

24,344.—*Title:* "HELLER'S SNOW-DRIFT." (For Containers Holding Heller's Snow-Drift, a Preparation Used for Making a Marshmallow Filling and Topping.) B. HELLER COMPANY, Chicago, Ill. Filed April 3, 1922.

24,345.—*Title:* "B. HELLER & CO.'S ZANZIBAR-CARBON INDELIBLE INK." (For Glass Bottles Holding B. Heller & Co.'s Zanzibar-Carbon Indelible Ink.) B. HELLER & COMPANY, Chicago, Ill. Filed April 3, 1922.

24,346.—*Title:* "B. HELLER & CO.'S ZANZIBAR-CARBON INDELIBLE INK ERADICATOR." (For Glass Bottles Holding B. Heller & Co.'s Zanzibar-Carbon Indelible Ink Eradicator, a Preparation for Removing Indelible-Ink Marks and Stains.) B. HELLER & COMPANY, Chicago, Ill. Filed April 3, 1922.

24,347.—*Title:* "PARAMOUNT." (For Salad Dressing.) HIRSCH BROS. & CO., INCORPORATED, Louisville, Ky. Filed March 23, 1922.

24,348.—*Title:* "'MOUNTAIN GROWN.'" (For Apples.) HOOD RIVER CANNING COMPANY, Hood River, Oreg. Filed March 23, 1922.

24,349.—*Title:* "ICE PIE." (For Ice-Cream Confection.) LOUIS H. HOPPE and WILLIAM L. BRUGGEMAN, St. Paul, Minn. Filed March 25, 1922.

24,350.—*Title:* "THE GREAT T PUZZLE." (For Packages Containing Letter Puzzles.) KIRBY-COGESHALL CO., Milwaukee, Wis. Filed December 27, 1921.

24,351.—*Title:* "GOLDEN WEST." (For Cartons Containing Butter.) MENASHA PRINTING AND CARTON COMPANY, Menasha, Wis., assignor to Valley Butter Company, Pittsburgh, Pa. Filed March 20, 1922.

24,352.—*Title:* "RED SEAL." (For Cartons Containing Butter.) MENASHA PRINTING AND CARTON COMPANY, Menasha, Wis., assignor to Valley Butter Company, Pittsburgh, Pa. Filed March 20, 1922.

24,353.—*Title:* "CHESTERFIELD." (For Chocolate Caramels.) THE METRO CHOCOLATE CO. INC., Brooklyn, N. Y. Filed March 16, 1922.

24,354.—*Title:* "CHERRIES." (For Boxes Containing Cherries in Liquid Covered with Milk Chocolate.) MILWAUKEE PAPER BOX COMPANY, Milwaukee, Wis. Filed March 31, 1922.

24,355.—*Title:* "SUMMER AND WINTER DE LITE ICE CREAM STICK THAT HITS RIGHT." (For an Ice-Cream Stick.) JAMES P. MORRILL, Reno, Nev. Filed March 29, 1922.

24,356.—*Title:* "MOTOR-KLEEN." (For a Preparation for Removing Carbon.) MOTOR-KLEEN CORPORATION, Long Island City, N. Y. Filed March 29, 1922.

24,357.—*Title:* "CHILD ED-U-KAT-HER." (For Boxes or Packages Containing Pasteboard Cut-Outs of Fanciful Figures.) MURWOOD ASSOCIATES, Worcester, Mass. Filed January 8, 1921.

24,358.—*Title:* "CHILD ED-U-KAT-HER." (For Boxes or Packages Containing Pasteboard Cut-Outs of Fanciful Figures.) MURWOOD ASSOCIATES, Worcester, Mass. Filed January 8, 1921.

24,359.—*Title:* "CHILD ED-U-KAT-HER." (For Boxes or Packages Containing Pasteboard Cut-Outs of Fanciful Figures.) MURWOOD ASSOCIATES, Worcester, Mass. Filed January 8, 1921.

24,360.—*Title:* "GRANDMA'S 'ABSORBO.'" (For a Penetrating Salve.) PARK LABORATORY COMPANY, San Antonio, Tex. Filed January 11, 1921.

24,361.—*Title:* "PRIMROSE SILKS." (For Silk.) PRIMROSE SILK STORES, INC., New York, N. Y. Filed March 23, 1922.

24,362.—*Title:* "PLOUGHMAN." (For Cigars.) THE PUMPELLY-HOWE TOBACCO COMPANY, Elmira, N. Y. Filed October 22, 1921.

24,363.—*Title:* "EXCLUSIVE FEATURES OF REAL SILK FASHIONED HOSIERY." (For Containers for Hosiery.) REAL SILK HOSIERY MILLS, Indianapolis, Ind. Filed March 17, 1922.

24,364.—*Title:* "CHU CHIN POWDER PUFFS." (For a Merchandise Card for Powder Puffs.) SANFORD IMPORTING CO., Chicago, Ill. Filed January 13, 1922.

24,365.—*Title:* "SYSTEM TONE." (For a Proprietary Medicine.) CHAS. A. SHAND, Huntington, W. Va. Filed August 6, 1921.

24,366.—*Title:* "CENTURY." (For Canned String Beans.) SUSSMAN, WORMSER & CO., San Francisco, Calif. Filed March 18, 1922.

24,367.—*Title:* "18 KARAT." (For Canned Peas.) SUSSMAN, WORMSER & CO., San Francisco, Calif. Filed March 18, 1922.

24,368.—*Title:* "TOTEM." (For Cigars.) WAITT & BOND, INC., Newark, N. J. Filed March 31, 1922.

24,369.—*Title:* "BLACKSTONE." (For Cigars.) WAITT & BOND, INC., Newark, N. J. Filed March 31, 1922.

24,370.—*Title:* "ENDICOTT." (For Cigars.) WAITT & BOND, INC., Newark, N. J. Filed March 31, 1922.

24,371.—*Title:* "BANQUET." (For Macaroons.) WARD BAKING COMPANY, New York, N. Y. Filed March 16, 1922.

24,372.—*Title:* "WARD'S SOFT BUN BREAD." (For Bread.) WARD BAKING COMPANY, New York, N. Y. Filed March 28, 1922.

24,373.—*Title:* "W S S WATER." (For Mineral Waters.) WHITE SULPHUR SPRINGS, INC., White Sulphur Springs, Va. Filed March 31, 1922.

24,374.—*Title:* "OLDE HARLEM." (For Boxes of Stationery and Writing Tablets.) WHITE & WYCKOFF MFG. CO., Holyoke, Mass. Filed March 8, 1922.

PRINTS

REGISTERED MAY 9, 1922.

6,096.—*Title:* "X X X." (For Advertising Purposes for Hair Bow Ribbons.) H. ADLER & BRO., New York. N. Y. Filed August 22, 1921.

6,097.—*Title:* "DRESSES THAT REALLY SLENDERIZE THE STOUT WOMAN." (For Advertising Purposes for Ladies' Dresses.) BAUM, KRAVAT & BAUM, New York, N. Y. Filed March 27, 1922.

6,098.—*Title:* "MOUNTAIN DEW." (For Advertising Purposes for a Furniture Polish.) THE BAY STATE FIBRE COMPANY, Boston, Mass.; Providence, R. I.; New York, N. Y., and Philadelphia, Pa. Filed March 16, 1922.

6,099. *Title:* "BYRON WESTON CO. DALTON, MASS. MANUFACTURERS OF LINEN LEDGER AND BOND PAPERS." (For Advertising Purposes for Paper.) BYRON WESTON COMPANY, Dalton, Mass. Filed March 29, 1922.

6,100.—*Title:* "1922 B. V. D. MAGAZINE AD." (For Advertising Purposes for Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed March 22, 1922.

6,101.—*Title:* "1922 BOYS' B. V. D. MAGAZINE AD." (For Advertising Purposes for Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed March 24, 1922.

6,102.—*Title:* "'NAME-PENCILS.'" (For Advertising Purposes for Pencils.) ALOYSIUS J. COLEMAN, New York, N. Y. Filed April 1, 1922.

6,103.—*Title:* "THE VALUE OF TIME." (For Advertising Purposes for Watches.) ELGIN NATIONAL WATCH COMPANY, Chicago, Ill. Filed March 20, 1922.

6,104.—*Title:* "THE PAGEANT OF TIME." (For Advertising Purposes for Watches.) ELGIN NATIONAL WATCH COMPANY, Chicago, Ill. Filed March 20, 1922.

6,105.—*Title:* "PAN KOR." (For Advertising Purposes for Hollow Concrete Walls.) GEORGE J. ENGERT, Spokane, Wash. Filed March 21, 1922.

6,106.—*Title:* "WHY MILLIONS EAT THEM HEINZ OVEN BAKED BEANS." (For Advertising Purposes for Heinz Oven-Baked Beans.) H. J. HEINZ CO., Pittsburgh, Pa. Filed April 1, 1922.

6,107.—*Title:* "THE MAN IN THE MOON BRINGS CHEERFULNESS OVER NIGHT." (For Advertising Purposes for Laxative Tablets.) JOHN M. KAPPUS, Cleveland, Ohio. Filed October 1, 1920.

6,108.—*Title:* "OUR OWN OIL LINIMENT." (For Advertising Purposes for Laxative Tablets.) JOHN M. KAPPUS, Cleveland, Ohio. Filed October 1, 1920.

6,109.—*Title:* "OSCAR MAYER'S APPROVED MEAT PRODUCTS." (For Advertising Purposes for Meat Products of Pork Variety.) OSCAR MAYER & COMPANY, INC., Chicago, Ill. Filed October 7, 1921.

6,110.—*Title:* "MAMMA'S INSIDE BUYING MY MENNEN TALCUM." (For Advertising Purposes for Mennen Talcum.) THE MENNEN COMPANY, Newark, N. J. Filed March 27, 1922.

6,111.—*Title:* "AUNT MOLLY'S BUTTER CREAMS." For Advertising Purposes for Butter Creams.) MILWAUKEE PAPER BOX COMPANY, Milwaukee, Wis. Filed March 18, 1922.

6,112.—*Title:* "ROBERTA SUGAR WAFERS." (For Advertising Purposes for Sugar Wafers with Cream Filling.) MILWAUKEE PAPER BOX COMPANY, Milwaukee, Wis. Filed March 24, 1922.

6,113.—*Title:* "UNCLE TOM'S NIGGER TOE." For Advertising Purposes for Chocolate Bars Containing a Nigger Toe.) MILWAUKEE PAPER BOX COMPANY, Milwaukee, Wis. Filed March 27, 1922.

6,114.—*Title:* "GUNZ-DURLER CANDIES." (For Advertising Purposes for Candy.) MILWAUKEE PAPER BOX COMPANY, Milwaukee, Wis. Filed April 1, 1922.

6,115.—*Title:* "BACHELOR ALMOND BAR." (For Advertising Purposes for an Almond Bar.) MILWAUKEE PAPER BOX COMPANY, Milwaukee, Wis. Filed April 3, 1922.

6,116.—*Title:* "COCO RIDGERS." (For Advertising Purposes for Chocolate-Covered Cocoanut Bars.) MILWAUKEE PAPER BOX COMPANY, Milwaukee, Wis. Filed April 3, 1922.

6,117.—*Title:* "PRETTY GIRLS HAVE ALWAYS KNOWN THE SECRET." (For Advertising Purposes for Palmolive Soap.) THE PALMOLIVE COMPANY, Milwaukee, Wis. Filed March 16, 1922.

6,118.—*Title:* "EXCLUSIVE FEATURES OF REAL SILK FASHIONED HOSIERY." (For Advertising Purposes for Hosiery.) REAL SILK HOSIERY MILLS, Indianapolis, Ind. Filed March 23, 1922.

6,119.—*Title:* "THERAPEUTIC TRACTION COUCH." (For Advertising Purposes for the Riesland Therapeutic Traction Couch.) DANIEL W. RIESLAND, Duluth, Minn. Filed January 20, 1922.

6,120.—*Title:* "THERAPEUTIC TRACTION COUCH." (For Advertising Purposes for the Riesland Therapeutic Traction Couch.) DANIEL W. RIESLAND, Duluth, Minn. Filed February 16, 1922.

6,121.—*Title:* "HOWARD FREEZER." (For Advertising Purposes for Ice-Cream Freezers.) STEINFELD BROS., New York, N. Y. Filed March 16, 1922.

6,122.—*Title:* "SNOW PEAK FREEZER." (For Advertising Purposes for Ice-Cream Freezers.) STEINFELD BROS., New York, N. Y. Filed March 16, 1922.

6,123.—*Title:* "FRIGID FREEZER." (For Advertising Purposes for Ice-Cream Freezers.) STEINFELD BROS., New York, N. Y. Filed March 16, 1922.

6,124.—*Title:* "UNDERWOOD SOUNDPROOF CABINET." (For Advertising Purposes for Typewriting Machines.) UNDERWOOD TYPEWRITER COMPANY, New York, N. Y. Filed April 1, 1922.

6,125.—*Title:* "THE ORIGINAL DOCTOR JOHN SLOAN LINIMENT." (For Advertising Purposes for a Liniment for Use on Man or Beast.) FRANK C. WADE, West Liberty, Ohio. Filed July 2, 1921.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

U. S. Circuit Court of Appeals—Ninth Circuit.

PACIFIC STATES ELECTRIC CO. *v.* WRIGHT.

Decided January 9, 1922.

[277 Fed. Rep., 756.]

1. PATENTS—IMPROVEMENT ON ELECTRIC COOKING APPARATUS HELD NOT PIONEER INVENTION.

A patent for an electric cooking apparatus, which combined in different form elements previously well known in the art, and the specification for which expressly declared it was an improvement on the prior art, does not embody a pioneer invention, so as to be entitled to a generic claim.

2. SAME—DEVICE SUBSTANTIALLY DIFFERENTIATED DOES NOT INFRINGE.

If the device embodied in the patent can be substantially differentiated from defendant's device, the charge of infringement is not sustained.

3. SAME—TRANSFORMATION OF PARTS EFFECTING SUBSTANTIALLY DIFFERENT OPERATION AVOIDS INFRINGEMENT.

Though a change in the relative position of the parts of a machine does not avoid infringement, where the parts perform the same respective functions after the change as before, the change of those positions which changes the functions of the several parts, so as to give the machine a substantially different mode of operation, does avoid infringement, though the ultimate result remains the same.

4. SAME—CLAIM FOR COMBINATION MUST DISCLOSE OPERATIVE COMBINATION.

A claim for combination, to be valid, must be for an operative combination, so that there can be eliminated therefrom an element without which the device would not operate.

5. SAME—1,214,486, CLAIMS 5 TO 9, FOR ELECTRICAL COOKING DEVICE, HELD NOT INFRINGED.

The Wright patent, No. 1,214,486, claims 5 to 9, for electric cooking apparatus, *Held* not infringed by a device effecting substantially the same result, but without using one element of the claims which, according to the declaration of the patentee, was one of the principal parts of his invention.

APPEAL from the District Court of the United States for the Southern Division of the Southern District of California. Oscar A. Trippet, judge.

Suit for infringement of patent by William D. Wright against the Pacific States Electric Company. Decree for complainant ,and defendant appeals. Reversed and remanded, with directions to dismiss the bill.

Mr. Raymond Ives Blakeslee and *Mr. John P. Bartlett* for the appellant.

Mr. Fredcrick S. Lyon and *Mr. Leonard S. Lyon* for the appellee.

Before GILBERT, Ross, and MORROW, Circuit Judges.

Ross, *Cir. J.:*

The appellee is the patentee of Letters Patent 1,214,486, issued January 30, 1917, for "Electric cooking apparatus," stating in his specification that his invention relates to improvements in electric heating apparatus, more particularly to be used for grilling and waffle-baking purposes, but which may be also used for any purpose of the ordinary electrically-heated stove, and which may be folded up so as to occupy a small space when not in use, and which provides a large heating surface when unfolded. One of the objects of the invention, as declared in the specification, was—

to provide a device of the kind that may be quickly converted from one use to a different use, as from a waffle iron to a grill, or to a device providing a large heating surface when required.

And the specification declared the principal parts of the invention to be—

the base or grill member *a* (shown upon the drawings accompanying the specification), the lower waffle member *b*, and the upper waffle member *c*.

After stating that the waffle member *b* is preferably made of aluminum, and may be of any shape desired, but that the patentee's preferred construction is an oblong rectangular shape, the specification proceeds to describe at length both of the waffle members and their connection, as also the wires for the electrical heating and the insulating material, and concludes the specification with the statement:

Although I have described my improvements with considerable detail and with respect to certain particular forms of my invention, I do not desire to be limited to such details since many changes and modifications may well be made without departing from the spirit and scope of my invention in its broadest aspect.

The first five claims related to and covered the grill member of the invention and are not for consideration, since it was only the last four claims which were adjudged by the court below to have been infringed by the appellant. Those claims are as follows:

6. In a device of the class described, a pair of casings pivotally connected together, a waffle member provided with an aluminum baking surface mounted in each of said casings so that each of said aluminum baking surfaces

covers the upper edge of one of said casings, and means mounted in said casings between said casings and said waffle members for electrically heating said waffle members.

7. In a device of the class described, a pair of casings pivotally connected together, a waffle member provided with aluminum baking surfaces mounted in each of said casings so that their surfaces extend past the edges of said casings, means mounted in said casings between said casings and said waffle members for electrically heating said waffle members, consisting of an electrical heating element adjacent said waffle member and a nonconducting element spacing said electrical heating element from said casing.

8. In a device of the class described, a pair of box-shaped casings pivotally connected together so as to fold one upon the other, a waffle member mounted in each of said casings provided with outwardly extending flanges extending past the edges of said casing, whereby said waffle members are supported on the edge of said casing and spaced apart from the bottom thereof, and electrical means mounted in the space between said waffle member and said casing for heating said waffle member.

9. In a device of the class described, a pair of box-shaped casings pivotally connected together so as to fold one upon the other, a waffle member mounted in each of said casings provided with outwardly extending flanges extending past the edges of said casing, whereby said waffle members are supported on the edge of said casing and spaced apart from the bottom thereof, electrical means mounted in the space between said waffle member and said casing for heating said waffle member, consisting of an electrical heating element adjacent said waffle member and a nonconducting element spacing said electrical heating element from said casing.

(1) There is no doubt that a pioneer inventor is entitled to a generic claim, but the record in the present case affords, in our opinion, no ground for the contention that the appellee occupies any such position. The various patents introduced in evidence show that various forms of electrical cooking apparatus were well known in the prior art, as was also aluminum as a cooking surface, and electrically heated waffle irons hinged together had also been made and publicly sold. What the appellee did was to improve upon the prior art, and, as has been shown, that was what he expressly declared in his specification.

(2) We therefore think the court below was quite right in its conclusion that the claims in question should receive a narrow construction, and the patent be limited to the precise device therein described. And it is well settled law that, if the device embodied in the appellant's patent can be substantially differentiated from that of the appellee, the charge of infringement can not be maintained. (*Eaid et al.* v. *Twohy Bros. et al.*, 230 Fed., 444, 447; 144 C. C. A., 586, and cases there cited. See, also, *Simplex Window Co.* v. *Hauser Reversible Window Co.*, 248 Fed., 919, 926; 161 C. C. A., 37; *Stebler* v. *Porterville Citrus Ass'n*, 248 Fed., 927, 930; 161 C. C. A., 45.)

(3) It is apparent from a comparison of the devices of the appellant and appellee that they both produce the same result. The real question is: Do they do so by substantially the same means? And we repeat what we said under like circumstances in *Simplex Window Co.* v. *Hauser Reversible Window Co.*, 248 Fed., at page 926; 161 C. C. A., 44:

> It is needless to cite the numerous cases in support of the law clearly stated in section 348 of Walker on Patents, the substance of which is that changing the relative position of the parts of a machine does not avert infringement, where the parts transformed perform the same respective functions after the change as before, but that such change does do so where the changing of those positions so changes the functions of the parts that the machine acquires a substantially different mode of operation, even though the ultimate result remains the same.

(4) Both the drawings and the specifications of the appellee's device show that both its lower and its upper waffle members are separately pivotally connected with its base or grill member, which three parts the patentee, as has been shown, expressly declares to be the principal parts of his invention. It is plain, therefore, that to eliminate either one of those parts is, as it said for the appellant, to destroy not only the structure but the law of operation of the device of the appellee. That a claim for a combination to be valid must be for an operative combination is clear. (*F. F. Slocomb & Co., Inc.*, v. *Layman Machine Co.*, (D. C.), 227 Fed., 94, 104; *Id.*, 230 Fed., 1021; 144 C. C. A., 286; *M'Caslin* v. *Link Belt Machinery Co.*, (C. C.), 139 Fed., 393; *Id.*, 147 Fed., 243; 77 C. C. A., 385.)

In *Wilson & Willard Mfg. Co.* v. *Union Tool Co.* (249 Fed., 729, 731; 161 C. C. A., 639, 641,) this court said:

> To make one mechanical device the equivalent of another, it must appear, not only that it produces the same effect, but that such effect is produced by substantially the same mode of operation.

(5) The waffle members of the appellant's device being directly pivoted together, its mode of operation is necessarily substantially different from that of the device of the appellee, and the base or grill of the latter, constituting, according to the express declaration of the patentee, one of the principal parts of his invention, has no corresponding element in the device of the appellant.

It is apparent, we think, that the two devices are substantially unlike, and, accordingly, the decree must be reversed, and the case remanded, with directions to the court below to dismiss the bill, at complainant's cost.

So ordered.

Court of Appeals of the District of Columbia.

IN RE MUMMERT.

No. 1473. Decided February 6, 1922.

PATENTS—REISSUE—EXCUSE FOR DELAY OF THREE AND ONE-HALF YEARS INSUFFICIENT.

While the rule requiring an application for reissue to be made within two years after the original issue is not inexorable, it is enforced with strictness and exception is only made where the excuse for the delay is either unavoidable or it is clear that the rejection would result in great injustice. The excuse that a delay of three and one-half years was caused by the ill health of the applicant, the death of her husband, and the absence of her son in the military service, in the light of the record was held insufficient.

Mr. Fred L. Chappell and *Mr. Otis A. Earl* for Mummert.

Mr. T. A. Hostetler for the Commissioner of Patents.

VAN ORSDEL, *J.*:

This appeal is from a decision of the Commissioner of Patents rejecting the following claims in a reissue application:

> 9. A dust collecting bag for a vacuum cleaner formed of crêpe paper, the texture of which permits the passage of air and filters the dust therefrom.
>
> 10. A dust collecting bag for vacuum cleaners formed of paper, the texture of which has been opened sufficiently to permit the free passage of air therethrough and to filter and collect the dust therefrom.

The claims were rejected upon two grounds:

(1) Laches or delay in filing the application.

(2) On the ground that appellant is estopped to make the claims, since claims to the same subject had been formerly made by appellant and canceled.

The present application for reissue was filed more than three and one-half years after the original patent was granted, and while appellant has attempted to excuse her delay in applying for reissue, on the grounds of ill health, the death of her husband, and the absence of her son in the military service, we agree with the Commissioner that in the light of the record the excuse is not sufficient.

It is apparent that it was not until others had entered the field that appellant appreciated the value of porous paper as a dust-collecting medium. In her original specification she defined the invention as relating—

to new and improved dust-collecting bags and vacuum cleaners and more particularly to an improved bag for this purpose which is constructed of a single blank of paper or cloth.

In another place canton flannel and crêpe paper are suggested as suitable material. The importance of paper was not suggested in the original claims, but on September 29, 1913, three claims were presented by amendment relating to a bag comprising a paper body, and subsequently on December 12, 1913, by an amendment which called for "crimped" and "crêpe" paper. These claims were rejected by the Examiner and the patent was not allowed until appellant had canceled the references therein to "paper," "crêpe paper," and "crimp paper." The application was allowed to forfeit and upon renewal two claims were presented which related solely to a bag for vacuum cleaners made of crêpe paper. These claims the Examiner rejected upon certain references, whereupon applicant canceled the claims and inserted two others directed to the form of the bag and the blank from which the bag is made. Nothing further was said relative to the importance of paper. In this condition the patent was granted and accepted. It is therefore apparent that the value of porous paper as a dust-collecting medium was an afterthought, hence this delayed application for reissue.

While the rule that an application for reissue must be made within two years after the issue of the original patent is not inexorable, yet the courts have enforced the limitation with strictness, and exception is only made in cases where the excuse for delay is either unavoidable or it is clear that the rejection of the application would result in great injustice. Without stopping to analyze the facts in this case we are of the opinion that the Commissioner was justified in rejecting the application. It is unnecessary therefore to consider the question of estoppel.

The decision of the Commissioner is affirmed.

Affirmed.

In the absence of Mr. Chief Justice SMYTH, Mr. Justice HOEHLING, of the Supreme Court of the District of Columbia, took part in the hearing and disposition of this case.

PATENT SUITS.

[Notices under section 4921, Revised Statutes, as amended February 18, 1922.]

787,814, J. D. Wolf, Separation of metals from their ores, suit filed Apr. 17, 1922, U. S. D. C., Idaho, Doc. 790, *Wolf Mineral Process Corp.* v. *Caledonia Mining Co.;* same, Doc. 791, *Wolf Mineral Process Corp.* v. *Bunker Hill & Sullivan Mining & Concentrating Co.;* same, suit filed Apr. 13, 1922, U. S. D. C., Mont., Doc. 94, *Wolf Mineral Process Corp.* v. *Anaconda Copper Co.;* same, Doc. 95, *Wolf Mineral Process Corp.* v. *North Butte Mining Co.;* same, Doc. 96, *Wolf Mineral Process Corp.* v. *Timber Butte Milling Co.*

958,478, W. E. Davey, Process of reinforcing trees, suit filed Apr. 20, 1922, U. S. D. C., W. D. Mo., Doc. 359, *The Davey Tree Expert Co.* v. *K. M. McBeath.*

1,057,756, A. L. Marsh, Electrical resistance element, suit filed Mar. 24, 1922, U. S. D. C., N. D. Ill., Doc. 2637, *Hoskins Mfg. Co., Detroit, Mich., and General Electric Co., N. Y., N. Y.,* v. *O. Reiman (Inc.).*

1,112,643, L. Muther, Method of and device for setting eyelets, etc., suit filed Aug. 19, 1916, U. S. D. C., Mass., Doc. 743 Eq., *L. Muther* v. *United Shoe Machinery Co.*

1,114,299, L. Severus, Electric-light fixtures, suit filed Apr. 19, 1922, U. S. D. C., Conn., Doc. 1593 Eq., *C. H. Jockmus* v. *W. W. Gale & Co., Inc.*

1,324,293, E. K. Baker, Semiwood wheels for use with pneumatic tires, suit filed Apr. 21, 1922, U. S. D. C., N. D. Ohio, (E. Div.,) Doc. 722, *Baker Wheel & Rim Co.* v. *The Firestone Steel Products Co.*

1,333,331, W. B. Moses, Starting, generating, and ignition apparatus, suit filed Feb. 11, 1921, U. S. D. C., Mass., Doc. 1076 Eq., *W. B. Moses* v. *Lalime & Partridge Inc. & Ford Motor Co.*

1,340,709, M. B. Gathman & R. D. Eaglesfield, Spindle adjustment for motor-driven molder, suit filed Mar. 13, 1922, U. S. D. C., Mass., Doc. 1700 Eq., *Vonnegut Machinery Co. & A. Vonnegut* v. *S. A. Woods.*

1,365,428, F. G. Whittier, Central-station apparatus for carrier-despatch systems; 1,108,293, same, Pneumatic-despatch-tube selective systems; 1,102,225, A. W. Pearsall, Pneumatic-despatch-tube apparatus; 808,623, B. C. Batcheller, Carrier for pneumatic tubes; suit filed Apr. 18, 1922, U. S. D. C., Mass., Doc. 1714 Eq., *The Lamson Co.* v. *F. L. Goddard & W. I. Goddard.*

1,365,803, F. W. Storck, Envelope-sealing machines, suit filed Feb. 2, 1922, U. S. D. C., Mass., Doc. 1070 Eq., *Standard Envelope Sealer Mfg. Co.* v. *Graywood Mfg. Co.*

1,375,114, S. W. Shepard, Fastening device for ladies' hand bag or vanity case, suit filed Mar. 21, 1922, U. S. D. C., Mass., Doc. 1705 Eq., *Howe Comb Co.* v. *Royal Comb Co.*

1,383,505, M. J. Weber, Weighing and measuring device, suit filed Apr. 14, 1922, U. S. D. C., Minn.,

Doc. 549 Eq., *Continental Scale Works, Corp.*, v. *City of St. Paul & The Junior Red Cross of St. Paul.*

1,409,401, J. R. Pickup & F. Seeley, Fender brace structure, suit filed Apr. 8, 1922, U. S. D. C., Iowa, (Cen. Div.,) Doc. 4184 Eq., *J. R. Pickup & F. Seeley* v. *F. A. Nelson & F. A. Nealey, (under firm name The Hook-On Fender Brace Co.)*

Adverse Decisions in Interference.

PATENT No. 1,338,923.

On April 3, 1922, a decision was rendered that John M. Hopwood was not the first inventor of the subject matter covered by claim 8 of his Patent No. 1,338,923, subject, "Controlling combustion by flow and pressure," and no appeal having been taken within the time allowed such decision has become final.

Disclaimers.

1,267,776. *Leo W. Lawrence*, Winston-Salem, N. C. TOBACCO-STEMMING MACHINE. Patent dated May 28, 1918. Disclaimer filed April 22, 1922, by the assignee, *Standard Tobacco Stemmer Company.*

Enters this disclaimer as follows:

"1. In respect of claims 41, 42, 43, 44, 45, 48, 52, 74, 75, and 78, the combination of the recited elements is hereby disclaimed except when and unless said elements are so constructed and coordinated that the stripping medium therein recited operates continuously at stripping position in performing the stripping operation.

"2. In respect of claims 46, and 47, the combination of the recited elements is hereby disclaimed except when and unless said elements are so constructed and coordinated that the stripping mediums therein recited operate continuously at stripping position in performing the stripping operation."

936,078. *Charles A. Benbow*, Portland, Oreg. ROPE-COMPUTING MACHINE. Patent dated October 5, 1909. Disclaimer filed April 27, 1922, by the assignee, *Grand Rapids Show Case Co.*

Enters this disclaimer—

To that part of the description and to that part of the claim in said specification which is in the following words, on page 2, lines 117 to 125, inclusive, of the printed copy of the patent, to wit:

"Should it be desired at any time to elevate the sheave 21 from contact with the rope attached to the machine, the lever 25 is pressed downwardly at its outer end and the spring 20^a which normally holds said lever in the position shown in Fig. 2 will then cause the ends of the lever carrying the sheave 21 to be slightly elevated and rest against the member 22.

"And also claim 5 of the patent, to wit:

"5. In a machine of the class described, the combination of computing mechanism, including a registering scale, rope feeding means embodying a series of pairs of rollers between each pair of which rope of a certain size is adapted to be fed, one roller of each pair being rotatable about a permanent axis and being operably connected with the computing mechanism, the other roller of each pair being bodily movable toward and from the first mentioned roller to cause operative engagement of the first mentioned roller with the rope adjacent thereto, a lever for effecting bodily movement of the movable roller above referred to, and spring means normally tending to hold the bodily movable roller in a position permitting free passage of rope between the various rollers without operation of the computing mechanism."

1,310,131. *Paul O. Noble*, Schenectady, N. Y. ELECTRIC WELDING. Patent dated July 15, 1919. Disclaimer filed April 26, 1922, by the assignee, *General Electric Company.*

Enters this disclaimer under the provisions of and for the purpose set forth in Rule 181, to the following claims in said Letters Patent, to wit:

"1. The method of electric arc welding which consists in regulating the amperage and voltage of the welding current inversely with respect to each other to maintain substantially constant energy in the arc.

"2. The method of supplying energy to an electric welding circuit in which an arc of variable length is maintained which consists in charging the circuit from a source of electric current of constant characteristic and modifying said current in accordance with the variations of resistance in said arc to vary the amperage and voltage of said current inversely with respect to each other in order to maintain the energy consumption in said arc substantially constant.

"3. An electric arc-welding apparatus comprising a welding circuit containing an arc-supporting electrode and means connected directly to said circuit adapted to deliver welding current, the amperage and voltage of which vary inversely in substantially constant energy relation over a given range.

"6. An electric arc welding apparatus comprising a welding circuit containing an arc-supporting electrode and a source of electrical energy connected directly to said circuit, said source comprising the combination of means for regulating the voltage and current inversely with respect to each other in a substantially constant energy relation in response to the rapid changes of resistance encountered in a welding arc within a given range of welding voltages."

1,359,400. *Edwin N. Lightfoot*, New York, N. Y. ELECTRIC HEATER. Patent dated November 16, 1920. Disclaimer filed April 25, 1922, by the assignee, *The Cutler-Hammer Mfg. Co.*

Enters its disclaimer—

"To so much of claims 17, 19, and 20 of said patent, and each of them, as may cover an electric heater which is not bendable and not of such length or elongation that the resistor cannot be accurately and effectively centered or spaced with respect to the tubular metal jacket by tension imposed upon the resistor;

"Thereby limiting said claims 17, 19, and 20 of said patent, and each of them, to an electric heater which is bendable and of such length or elongation that the resistor must be centered or spaced mechanically and progressively in advance of and as the filling with the insulation proceeds and independently of the tension imposed on the resistor.

"Your petitioner further enters its disclaimer to so much of claims 23, 24, 25, 26, 27, and 28 of said patent, and each of them, as may cover a process in which the resistor is not placed, assembled or positioned within the tubular metal jacket by positively and mechanically centering or spacing the resistor continuously and progressively in advance of and as the filling with insulation proceeds;

"Thereby limiting said claims 23, 24, 25, 26, 27, and 28, and each of them, to a process of making an electric heater in which the resistor is placed, assembled or positioned within the tubular metal jacket by positively and mechanically centering or spacing the resistor continuously and progressively in advance of and as the filling with insulation proceeds."

THE

OFFICIAL GAZETTE

OF THE

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Issue of May 16, 1922.

Patents	815—No.	1,415,853 to No.	1,416,667, inclusive.
Designs	23—No.	60,949 to No.	60,971, inclusive.
Trade-Marks	331—No.	154,854 to No.	155,184, inclusive.
Labels	18—No.	24,375 to No.	24,392, inclusive.
Prints	5—No.	6,126 to No.	6,130, inclusive.
Reissues	6—No.	15,353 to No.	15,358, inclusive.
Total	1198		

Interference Notices.

Department of the Interior,
United States Patent Office,
Washington, D. C., April 25, 1922.

Clarence H. Henton, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Claude F. Osborne, 120 South Reeve Street, Hampton, Iowa, for registration of a trade-mark and trade-mark registered December 4, 1906, No. 58,077, to Clarence H. Henton, 3819 North Hermitage Avenue, Chicago, Ill., and a notice of such declaration sent by registered mail to Clarence H. Henton at the said address having been returned by the post office undeliverable, notice is hereby given that unless said Clarence H. Henton, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the Official Gazette for three consecutive weeks.

THOMAS E. ROBERTSON,
Commissioner.

Department of the Interior,
United States Patent Office,
Washington, D. C., April 25, 1922.

J. Osiason, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of O. D. Baker Company, 525 West Forty-fifth Street, New York, N. Y., for registration of a trade-mark and trade-mark registered February 10, 1914, No. 95,341, to J. Osiason, 154 Broadway, Bristol, Mass., and a notice of such declaration sent by registered mail to J. Osiason at the said address having been returned by the post office undeliverable, notice is hereby given that unless said J. Osiason, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the Official Gazette for three consecutive weeks.

THOMAS E. ROBERTSON,
Commissioner.

Department of the Interior,
United States Patent Office,
Washington, D. C., April 25, 1922.

Crystal Spring Bottling Company, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Purity Crystal Rock Mineral Spring Water Co., 4611–15 North Western Avenue, Chicago, Ill., for registration of a trade-mark and trade-mark registered October 10, 1893, No. 23,699, to Crystal Spring Bottling Co., Barnet, Vt., and a notice of such declaration sent by registered mail to Crystal Spring Bottling Co. at the said address having been returned by the post office undeliverable, notice is hereby given that unless said Crystal Spring Bottling Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the Official Gazette for three consecutive weeks.

THOMAS E. ROBERTSON,
Commissioner.

Department of the Interior,
United States Patent Office,
Washington, D. C., April 26, 1922.

Coast-Wide Chemical Company, Incorporated, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Frank P. Symonds, 16 Water Street, Salem, Mass., for registration of a trade-mark and trade-mark registered October 17, 1916, No. 113,491, to Coast-Wide Chemical Company, Incorporated, 74 Cortlandt Street, New York, N. Y., and a notice of such declaration sent by registered mail to Coast-Wide Chemical Company, Incorporated, at the said address having been returned by the post office undeliverable, notice is hereby given that unless said Coast-Wide Chemical Company, Incorporated, its assigns or legal representatives shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the Official Gazette for three consecutive weeks.

WM. A. KINNAN,
Acting Commissioner.

Adverse Decisions in Interference.

Patent No. 1,344,823.

On April 14, 1922, a decision was rendered that Rodney G. Richardson was not the first inventor of the subject-matter covered by claims 1, 2, 3, 5, 10, and 27 of his Patent No. 1,344,823, subject, "Automatic telephone system," and no appeal having been taken within the time allowed such decision has become final.

Condition of Applications Under Examination at Close of Business May 6, 1922.

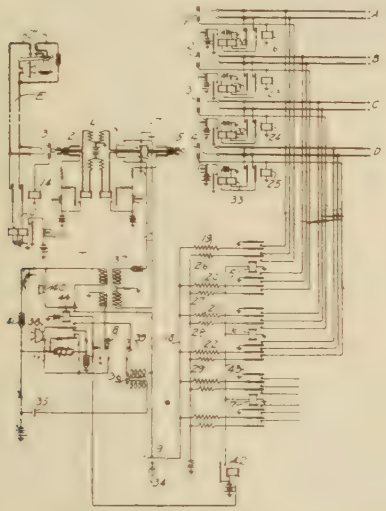
(Total number of applications waiting action, excluding Trade-Mark division, 66,195; Trade-Mark division, 8,726. Oldest new case, Mar. 2: oldest amended, Mar. 23, 1921. The dates given are 1921 except where * indicates 1922.)

Room No.	Divisions, Examiners, and subjects of inventions.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended.	
314	1. LOEFFLER, F. A., Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Planting; Scattering Unloaders.	Oct. 27	Nov. 14	894
128	2. BALDWIN, M., Bee Culture; Dairy; Medicines; Pneumatics: Preserving; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco; Trees, Plants, and Flowers.	June 3	July 5	1,823
175	3. RICH, WM. J., Electric Heating and Rheostats; Electrochemistry; Heating; Metal Founding; Metallurgical Apparatus; Metallurgy; Metal Treatment; Plastic Metal Working.	Sept. 6	May 19	875
234	4. MERRITT, A. D., Conveyers; Conveyers, Fluid Current; Conveyers, Power Driven; Excavating; Handling—Hand and Hoist-Line Implements; Hoisting; Material or Article Handling; Pushing and Pulling Implements; Railway Mail Delivery; Traversing Hoists.	July 7	*Feb. 1	1,503
167	5. MACNAB, J. F., Bookmaking; Books, Strips, and Leaves; Harvesters; Jewelry; Manifolding; Music; Printed Matter; Tying Cords or Strands.	July 11	July 18	1,081
318	6. LEWERS, A. M., Bleaching and Dyeing; Chemicals; Explosive, Pyrotechnic, and Match Compositions; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Substance Preparation.	Aug. 10	*Jan. 6	1,284
312	7. JARBOE, C. G., Games and Toys; Optics; Photography; Velocipedes	Aug. 8	Oct. 25	2,351
133	8. CLIFT, J. W., Beds; Chairs and Seats; Flexible-Sheet-Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	*Feb. 23	*Mar. 25	723
221	9. TRYON, F. M., Air and Gas Pumps; Hydraulic Motors; Injectors and Ejectors; Motors, Fluid; Motors, Fluid Current; Pumps.	Apr. 9	*Feb. 8	1,047
235	10. MITCHELL, T. H., Land Vehicles; Land Vehicles, Animal Draft Appliances; Land Vehicles—Bodies and Tops; Land Vehicles—Dumping; Land Vehicles, Wheel Substitutes; Motor Vehicles.	Oct. 27	*Mar. 1	1,083
154	11. ARMSTRONG, H. C., Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Dec. 19	*Jan. 27	577
322	12. PIERCE, P. P., Machine Elements	Oct. 1	Dec. 22	1,169
329	13. NIXON, G. A., Bolt, Nail, Nut, Rivet, and Screw Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Turning.	Apr. 30	Dec. 31	1,931
323	14. BRUMBAUGH, N. J., Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire Working.	July 21	*Feb. 27	907
308	15. REDROW, W. L., Bread, Pastry, and Confection Making; Glass; Laminated Fabrics and Analogous Manufactures; Paper Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	May 19	July 1	1,984
112	16. BACKUS, C. D., Radiant Energy; Telegraphy; Telephony	May 7	May 7	2,151
307	17. RAFTER, G. S., Coating, Label Pasting, and Paper Hanging; Nut and Bolt Locks; Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet-Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	Aug. 5	Dec. 10	1,329
229	18. PORTER, M. E., Liquid Heaters and Vaporizers; Motors, Expansible-Chamber Type; Power Plants; Speed-Responsive Devices; Steam and Vacuum Pumps.	Mar. 2	May 4	2,275
236	19. GLASCOCK, E. S., Automatic Temperature and Humidity Regulation; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels; Thermostats and Humidostats.	May 12	Sept. 3	1,250
179	20. WRIGHT, H., Artificial Body Members; Miscellaneous Hardware; Closure Fasteners; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Nov. 7	Nov. 5	1,785
212	21. THURBER, W. L., Continuous-Strip Feeding; Textiles; Textiles, Braiding, Netting, or Lace Making; Textiles, Cloth Finishing; Textiles, Fiber Preparation; Textiles, Knitting; Textiles, Spinning; Textiles, Twisting or Twining; Textiles, Weaving; Winding and Reeling.	Apr. 21	Sept. 19	940
249	22. COLWELL, J. H., Aeronautics; Firearms; Ordnance; Ammunition and Explosive Devices; Ammunition and Explosive-Charge Making.	Sept. 2	*Jan. 4	522
217	23. GROESBECK, W. D., Acoustics; Coin Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	Apr. 11	Sept. 21	823
144	24. DURAS, C. O., Apparel; Apparel Apparatus; Garment Supporters; Sewing Machines	July 14	Dec. 12	1,190
315	25. LIGHTFOOT, J. H., Agitating; Butchering; Centrifugal-Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	*Feb. 7	*Mar. 4	432
105	26. HODGES, J. S., Electricity, Generation; Motive Power; Prime-Mover Dynamo Plants	Aug. 20	Nov. 3	992
214	27. ANDERSON, L. S., Abrading; Brush, Broom, and Mop Making; Brushing, Scrubbing, and General Cleaning; Laundry; Washing Apparatus.	Aug. 11	Sept. 12	1,884
225	28. BENSON, A. R., Internal-Combustion Engines	Aug. 26	Aug. 3	1,754
147	29. MORRIS, B. N., Boring and Drilling; Button Making; Chucks or Sockets; Coopering; Tool-Handle Fastenings; Wheelwright Machines; Wood Sawing; Wood Turning; Woodworking; Woodworking Tools.	July 20	*Mar. 8	633
152	30. SULLIVAN, M. R., Illuminating Burners; Illumination; Liquid and Gaseous Fuel Burners; Typewriting Machines.	Nov. 2	*Feb. 8	1,418
172	31. HOLMES, W. N., Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Fuel and Igniting Devices; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	May 4	July 8	2,135
278	32. BANCROFT, J. F., Gas and Liquid Contact Apparatus; Heat Exchange	June 4	*Jan. 2	1,074
70	33. COWLES, W. A., Bridges; Hydraulic and Earth Engineering; Masonry and Concrete Structures; Metallic Building Structures; Roads and Pavements; Roofs.	Oct. 4	Nov. 18	960
304	34. SIMPSON, G. R., Electricity-Transmission to Vehicles; Pneumatic Dispatch; Railways; Railway Rolling Stock; Railway Switches and Signals; Railways, Surface Track; Railway Wheels and Axles; Store Service; Track Sanders; Vehicle Fenders.	*Feb. 3	*Feb. 27	432
52	35. REYNOLDS, E. C., Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals and Indicators; Toilet.	Dec. 2	*Feb. 7	960
204	36. MORTON, G. L., Automatic Weighers; Driers; Geometrical Instruments; Measuring Instruments; Force Measuring.	Nov. 4	Oct. 26	1,781
107	37. TAYLOR, E. C., Electricity, Circuit Makers and Breakers	June 21	June 9	1,971
378	38. IDE, G. R., Animal Husbandry; Earth Boring; Fishing, Trapping, and Vermin Destroying; Mining, Quarrying, and Ice Harvesting; Stationery; Stoneworking; Wells.	Sept. 8	Sept. 27	1,633
220	39. COWLES, A. W., Fluid-Pressure Regulators; Joint Packings, Multiple Valves; Packed Shaft or Rod Joints; Pipe Joints or Couplings; Rod Joints or Couplings; Valved Pipe Joints or Couplings; Valves; Water Distribution.	Mar. 31	May 5	2,270
273	40. OBERLIN, J. J., Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Receptacles; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	May 13	July 20	2,959
125	41. BROWN, J. I., Land Vehicles, Wheels and Axles; Resilient Tires and Wheels	Dec. 1	Nov. 8	712
114	42. CUTTING, H. O., Electrical Conduits and Housings; Electric Signaling; Electric Lamps	June 16	June 1	1,891
382	43. HOPKINS, F. M., Baths and Closets; Dispensing; Dispensing Beverages; Electricity, Medical and Surgical; Fire Extinguishers; Sewerage; Surgery; Liquid Separation or Purification.	June 21	Aug. 1	1,895
253	44. SHAFFER, C. H., Air Guns, Catapults, and Targets; Boats and Buoys; Filling and Closing Portable Receptacles; Marine Propulsion; Railway Draft Appliances; Refrigeration; Ships.	Aug. 29	*Apr. 1	503
379	45. GILES, A. H., Journal Boxes, Pulleys, and Shafting; Lubrication; Motors; Spring Devices	Aug. 22	Nov. 5	1,232
332	46. WOLCOTT, C. L., Curtains, Shades, and Screens; Educational Appliances; Fire Escapes; Ladders; Fluid Sprinkling, Spraying, and Diffusing; Paper Files and Binders; Wooden Buildings; Scaffolds.	Sept. 8	Nov. 3	1,338
264	47. BARKER, H., Brakes; Clutches and Power Stop Control; Elevators; Fluid-Pressure Brake and Analogous Systems.	June 23	Oct. 20	1,311
118	48. ROEPKE, O. B., Electricity Conductors; Electricity, General Applications	Mar. 2	Mar. 23	2,525
163	TRADE-MARKS, DESIGNS, LABELS AND PRINTS: T. L. MEAD, JR.			
	Trade-Marks	Sept. 12	Jan. 30	5,782
	Designs	Sept. 15	Dec. 3	2,698
	Labels and Prints	Apr. 8	Apr. 15	246

PATENTS

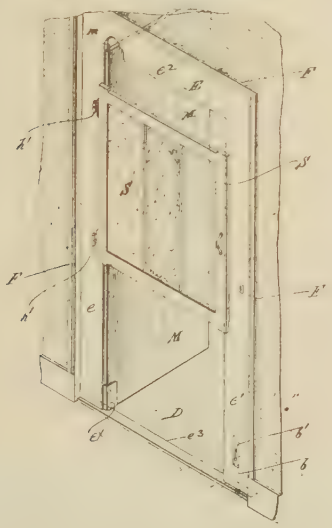
GRANTED MAY 16, 1922.

1,415,853. TELEPHONE-EXCHANGE SYSTEM. WALLACE P. ANDRICK, Hohokus, and JACK F. DAHL, East Orange, N. J., assignors to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Oct. 25, 1920. Serial No. 419,413. 6 Claims. (Cl. 179—73.)



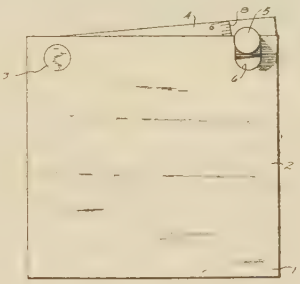
5. In a manual telephone exchange system, a group of associated common battery telephone lines normally adapted for individual connection, terminals for said lines having test contacts, an operator's telephone circuit, means for grouping the lines together with said operator's telephone circuit for common talking and ringing, and means for maintaining the test contacts of the terminals at essentially the same potential for both common and individual connections.

1,415,854. CLOSURE FOR DOORWAYS. LOUIS ALLEN ABRAMSON, New York, N. Y. Filed Apr. 4, 1921. Serial No. 458,472. 4 Claims. (Cl. 20—16.)



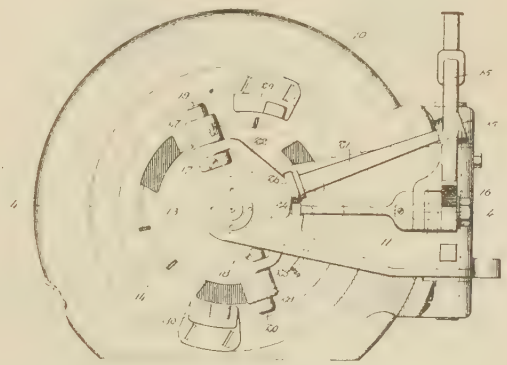
1. A closure for doorways of the character designated, comprising a major emergency door of maximum fixed doorway area, said emergency door being formed with a supplementary normal doorway, and a medial door pivotally mounted on said emergency door and adapted to function as a closure for said supplementary normal doorway, together with an auxiliary screen door demountably supported on said major emergency door, and adapted to partially close said normal doorway, said medial door and screen door hinged to extend entirely across the door opening and to swing in opposite directions, for the purpose described.

1,415,855. WORK HOLDER. PER MARTIN ANDERSON, Hartford, Conn. Filed Aug. 27, 1920. Serial No. 406,386. 1 Claim. (Cl. 90—59.)



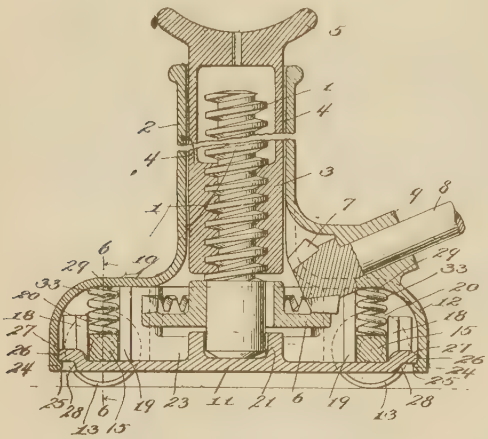
In a work holder, a notched frame, a table having one end pivotally secured to said frame, plugs formed at the non-pivoted end of said table for disposal in the notches of said frame, oppositely disposed segments depending from the non-pivoted end of said table into said frame, means connecting said segments and frame for releasably retaining said segments in adjusted relation with said frame, and a V-block within said frame.

1,415,856. BREECH MECHANISM. DORSEY F. ASBURY, Washington, D. C. Filed Oct. 12, 1920. Serial No. 416,486. 12 Claims. (Cl. 89—20.)



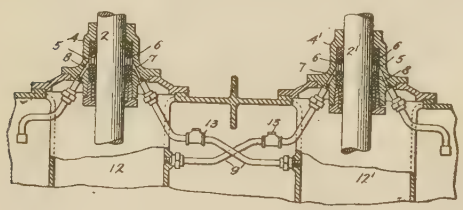
1. In a breech mechanism, the combination of a carrier, a breech plug mounted on the carrier for both motions of rotation and translation with respect to the carrier, and an operator for the plug reacting from the carrier at one place to rotate the plug and at spaced places to translate the plug.

1,415,857. ROLLER-BASE LIFTING JACK. TRUE M. AVERY, Glens Falls, N. Y., assignor to Arrow-Grip Manufacturing Co., Inc., Glens Falls, N. Y., a Corporation of New York. Filed June 16, 1919. Serial No. 304,546. 7 Claims. (Cl. 254—1.)



1. A lifting jack having a base provided with cooperating guide lugs and clearances between the guide lugs, axles fitted in the clearances for vertical movement and each provided with roller supporting means, said base including a cover which encloses said lugs, axles and roller supporting means and also having means secured below said lugs against which said axles may normally rest and springs acting within and on said cover and on said axles whereby to urge the latter downward relatively to said base, said roller supporting means normally projecting below said base and the latter being formed for stable engagement with the ground or floor to assume the supporting function under the weight of the object supported by the jack.

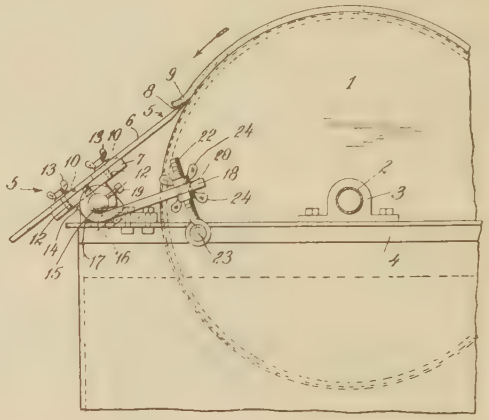
1,415,858. INTERNAL-COMBUSTION ENGINE. CHARLES G. BARRETT, Brookline, Mass., assignor to Worthington Pump and Machinery Corporation, New York, N. Y., a Corporation of Virginia. Filed June 14, 1921. Serial No. 477,376. 6 Claims. (Cl. 184—1.)



4. Means for conserving lubricant in multiple cylinder internal combustion engines, comprising chambers receiving oil from lubricated parts of said engines, outlets therefor, and cross-over connections between the respective oil chambers and scavenging air chambers of other cylinders for supplying air under pressure to said oil-receiving chambers.

1,415,859. SCRAPER FOR ROTARY FILTERS. JOSEPH SUMNER BATES, Bridgeport, Conn., assignor to The National Aniline & Chemical Company, Inc., New York, N. Y., a Corporation of New York. Filed Mar. 8, 1921. Serial No. 450,684. 5 Claims. (Cl. 144—115.)

1. A scraping device for scraping agglomerated material from the surface of a cylindrical rotary filter, comprising a scraping knife, means for adjusting the scraping knife in its own plane toward and away from the surface of the filter, and means for angularly adjusting the scraping

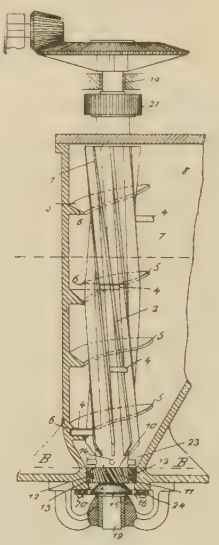


knife about an exis substantially parallel to the axis of the filter and for holding it in any desired adjusted position.

1,415,860. DEPOLARIZER FOR PRIMARY BATTERIES. RAYMOND C. BENNER and HARRY F. FRENCH, Fremont, Ohio, assignors to National Carbon Company, Inc., a Corporation of New York. Filed Aug. 22, 1918. Serial No. 251,030. 4 Claims. (Cl. 204—38.)

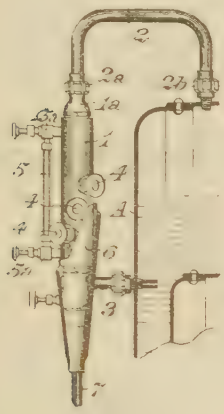
1. A depolarizer for alkaline cells containing cuprous oxide mixed with sulphur each of said ingredients being effective, substantially as described.

1,415,861. MACHINE FOR REDUCING TURNING CHIPS AND THE LIKE. JULIUS BING, Eisenach, Germany. Filed Oct. 25, 1919. Serial No. 333,381. 19 Claims. (Cl. 29—45.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



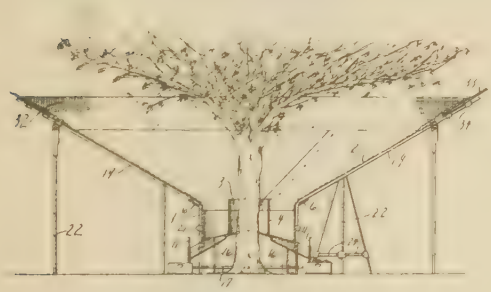
1. In a machine for reducing turning chips and the like, coarse reducing means, fine reducing means arranged behind said coarse reducing means, and an agitating device arranged between said coarse and fine reducing means.

1,415,862. WATER-GAUGE COLUMN. JAMES G. BLUNT, Schenectady, and HARRY SWOYER, Dunkirk, N. Y. Filed May 26, 1921. Serial No. 472,742. 2 Claims. (Cl. 73—54.)



1. The combination of a water gauge column; upper and lower connection castings, secured to the ends of said body; a plurality of gauge cocks, secured to said body, intermediate of its ends; and a circumferentially adjustable dripper, connected to the lower connection casting.

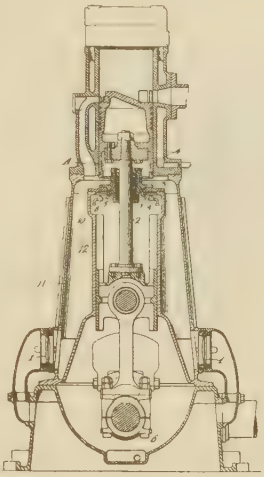
1,415,863. FRUIT CATCHER. GEORGE BOELMAN, Gridley, Calif. Filed Apr. 4, 1921. Serial No. 458,210. 5 Claims. (Cl. 56—329.)



1. In a fruit catcher, a basin comprising two symmetrical parts forming a central opening, means for pivotally connecting said two parts at one end and for locking them at the other end, the bottom of said basin rising toward the connecting line and having outlets at its lowest points, and a plurality of vertical guideways arranged on the outside of said basin.

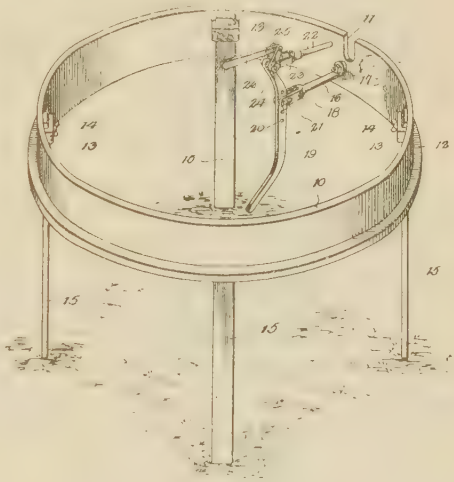
1,415,864. INTERNAL-COMBUSTION ENGINE. PHILLIPS P. BOURNE, Winchester, Mass., assignor to Worthington Pump and Machinery Corporation, New York, N. Y., a Corporation of Virginia. Filed June 14, 1921. Serial No. 477,392. 7 Claims. (Cl. 123—196.)

1. Oil recovering means for engines, comprising a piston-rod stuffing box having an open-ended oil-collecting chamber accessible to a piston-compressed medium, and



an outlet from said chamber through which oil is delivered.

1,415,865. PNEUMATIC TRUCK TIRE CHANGING DEVICE. GUY C. BROWN, Waco, Tex. Filed Oct. 2, 1920. Serial No. 414,186. 15 Claims. (Cl. 29—84.)



1. A device of the character described including means for supporting a demounted wheel rim, and means for ejecting the valve casing of a tire through the rim.

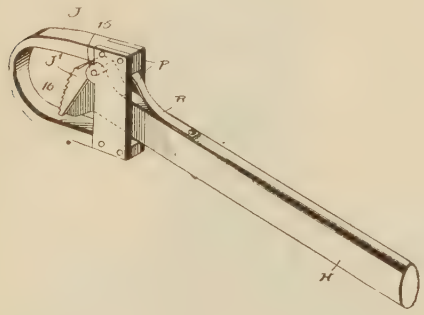
1,415,866. CLEANER AND POLISH COMPOSITION. GEORGE W. CABLE, Marysville, Calif. Filed Jan. 4, 1921. Serial No. 435,022. 3 Claims. (Cl. 134—24.)

2. A cleaning and polishing composition consisting of orange juice, kerosene, flour, water, and eucalyptus oil.

1,415,867. WRENCH. EDWARD CLAYTON COLEMAN, Hammond, La. Filed Nov. 2, 1921. Serial No. 512,268. 1 Claim. (Cl. 81—53.)

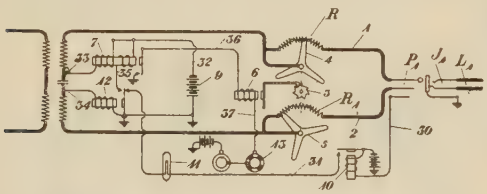
A wrench comprising a U-shaped stationary jaw, plates spanning and secured to the free ends of the stationary

jaw, a shank operating between and pivotally secured to the plates, a jaw fixed to the inner end of the shank and disposed wholly within the stationary jaw, a handle integral with the outer end of the shank for operating the jaw carried thereby, and a bent blade spring having



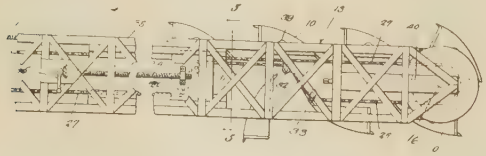
one end secured to the shank exteriorly of the stationary jaw and having its other end slidably engaging the stationary jaw between the plates whereby said spring urges the jaw carried by the shank inwardly of the stationary jaw.

1,415,868. TRANSMISSION-EQUALIZATION ARRANGEMENT. LEO H. DARROW, New York, N. Y., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Oct. 2, 1919. Serial No. 328,013. 3 Claims. (Cl. 178—44.)



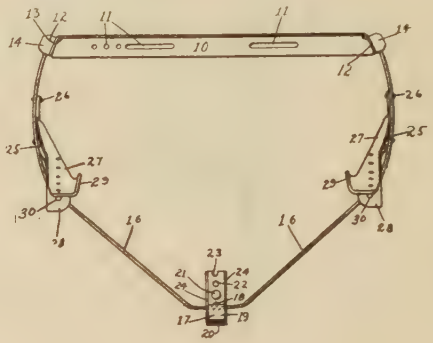
1. In a telephone exchange system, subscribers' lines of differing electrical characteristics, a connecting means for establishing connections with said lines, a source in said connecting means for supplying talking current for said lines, a differentially wound relay in said connecting means, one of the windings of said relay being included in the talking circuit of said connecting means and a line, the other winding being included in a local circuit, said local circuit being so adjusted that when said talking circuit includes a line of predetermined electrical characteristics said relay will not operate, and means controlled by said relay for varying the current flow from said source over said talking circuit.

1,415,869. CONVEYER. HENRY J. FISCHER, Baltimore, Md., assignor of one-sixth to Robert H. Haase and one-sixth to Frederick C. Dettmar, Baltimore, Md. Filed June 23, 1921. Serial No. 479,745. 6 Claims. (Cl. 198—145.)



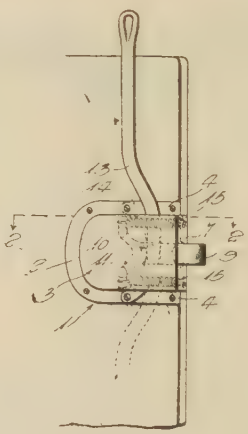
1. A conveying apparatus comprising an endless driving element, pivoted buckets carried by said element and unbalanced to have a normal tendency to tilt to dumping position, a restraining element running parallel to the path of the buckets and engageable thereby to prevent tilting thereof to dumping position, said element having a portion which is spaced from the buckets a distance to clear the same and permit tilting, and means for changing the position of said spaced portion in the direction of the length of the apparatus.

1,415,870. TIRE CARRIER. JOSEPH GALAMB, Detroit, Mich., assignor to Ford Motor Company, Highland Park, Mich., a Corporation of Delaware. Filed Dec. 9, 1920. Serial No. 429,448. 3 Claims. (Cl. 224—29.)



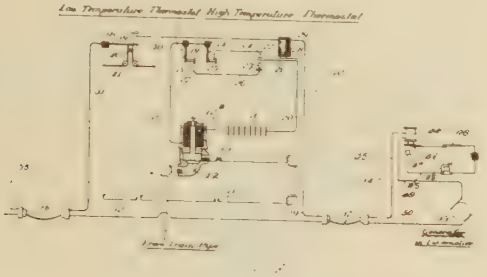
1. In a tire carrier a cross bar, rim engaging means at either end thereof, a body member having curved end portions, the ends of which are disposed adjacent to the ends of said bar, means for securing said rim engaging means, the ends of the body member, and the ends of the bar together, a rim engaging device disposed intermediate of the ends of the body member, the latter being formed with straight portions between said last described rim engaging device and the curved portions, and a coacting movable member disposed adjacent to the last described rim engaging device.

1,415,871. LATCH. SAMUEL P. GEHRET, York, Pa. Filed Oct. 4, 1920. Serial No. 414,642. 6 Claims. (Cl. 292—173.)



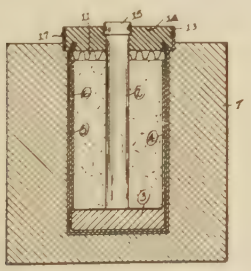
1. A device of the class described comprising a mechanism casing including a base plate for disposition against one side of the door, and a recess cover plate connected to the base plate, said cover plate being provided with a relatively wide slotted front wall extending laterally beyond said base plate, this front wall providing an attaching flange and being designed to be disposed against the front vertical edge of the door so as to serve the additional function of a wear plate, and a locking mechanism disposed in said casing, including a bolt projectable through the slot in said attaching flange.

1,415,872. HEATING SYSTEM FOR RAILWAY TRAINS. HARRY G. GEISSINGER, Chicago, Ill., assignor to Vapor Car Heating Company, Inc., Chicago, Ill., a Corporation of New York. Filed May 9, 1919. Serial No. 295,954. 6 Claims. (Cl. 236—36.)



6. In combination with a railway car, signalling apparatus comprising an electric circuit, means for closing said circuit upon coupling up of the car in a train and breaking this circuit on uncoupling of the car, a heating apparatus in the car and means for controlling the supply of heating medium to said heating apparatus the operation of which means is dependent upon whether said electric circuit is open or closed.

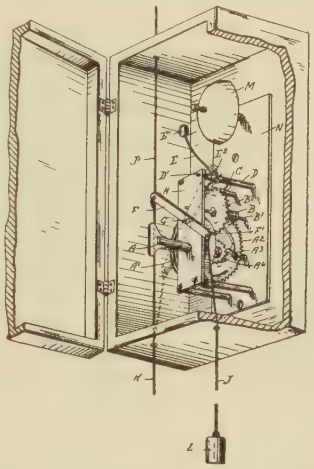
1,415,873. DRY CELL. CLARENCE W. HAZELETT, Lakewood, Ohio, assignor to National Carbon Company, Inc., a Corporation of New York. Filed May 9, 1919. Serial No. 295,992. 6 Claims. (Cl. 204—38.)



1. A cartridge adapted to coact with a metal cup to form a dry battery, said cartridge comprising a depolarizing electrode bobbin having a body of fluid material attached to its lower end in such a way that the fluid material can be caused to rise between the bobbin and said metal cup on pressing the bobbin into said metal cup.

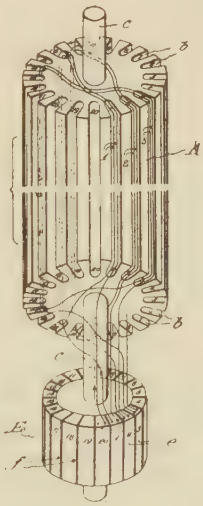
1,415,874. AUTOMATIC ALARM. SIMON HICKEY, Marrickville, New South Wales, Australia. Filed Aug. 24, 1920. Serial No. 405,653. 2 Claims. (Cl. 116—94.)

1. An alarm device, comprising in combination spring actuated mechanism, means for tensioning the spring, a serrated wheel actuated by said mechanism, a pallet centrally mounted on an oscillating sleeve and actuated by the serrated wheel, a hammer-shank projecting from said sleeve, a head on said shank, a stop arm for said shank, a gong associated with said head, a detent lever pivoted at a point between its ends, and having a member to engage said stop arm and restrain said hammer shank from operating when said detent lever is in one position and a cord



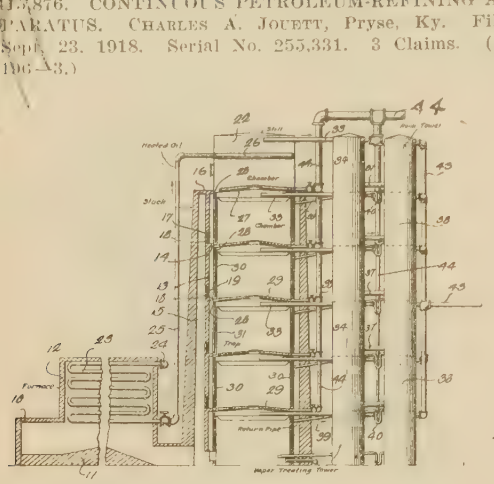
connected to the detent lever and so directed that a pull thereon will move said lever to the "off" position.

1,415,875. ARMATURE WINDING. ALFRED W. HOUCHIN, Kirkwood, N. J., assignor to Shockless Electric Corporation, Kirkwood, N. J., a Corporation of New Jersey. Filed Apr. 30, 1917. Serial No. 165,589. 2 Claims. (Cl. 171—206.)



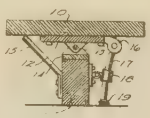
1. In combination: an armature having a plurality of slots, and a plurality of coils disposed in said slots, said coils being symmetrically arranged in pairs, the coils of each pair being disposed in slots on opposite sides of and next to a line drawn through the axis of the armature and extending across the ends of the armature on correspondingly opposite sides of said axis; and a commutator having as many segments as there are coils; the two terminals of each of said coils being connected to adjoining commutator segments, the contiguous terminals of the coils of each pair being connected to the same commutator segment, and the contiguous terminals of the adjoining coils of the adjoining pairs being connected to the same commutator segment.

1,415,876. CONTINUOUS PETROLEUM-REFINING APPARATUS. CHARLES A. JOUETT, Pryse, Ky. Filed Sept. 23, 1918. Serial No. 255,331. 3 Claims. (Cl. 196—13.)



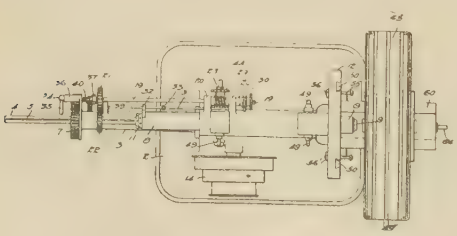
1. In an apparatus for refining oil, the combination of a plurality of superposed chambers, provided with annular traps at their lower ends, the trap of each chamber opening into the top of the subjacent chamber, means for feeding oil into the top of the uppermost chamber, the oil being adapted to drain from the upper chamber through the trap into the tops of the subjacent chambers, heating means surrounding said trap, means for independently carrying off the vapors from the chambers of the still, and means for independently treating the vapors.

1,415,877. SLED. WILPPU KAITTILA, Grayling, Mich. Filed May 13, 1920. Serial No. 381,080. 1 Claim. (Cl. 280—23.)



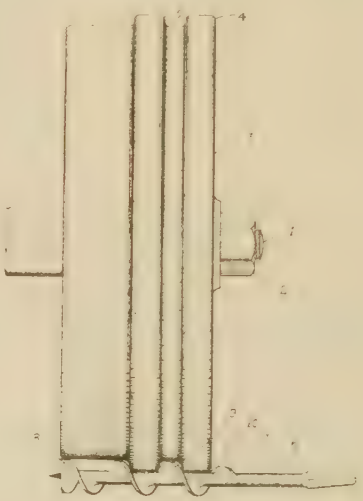
In a sled, a foot rest pivotally carried by one of the sled runners, angle bars secured to one side of the sled runner for supporting engagement with one lateral edge of said foot rest, a guide bracket secured to the opposite side of said runner, and a brake rod pivotally carried by said foot rest and extending through said guide bracket for frictional engagement with the roadway in one position of said foot rest.

1,415,878. BORING AND MILLING MACHINE. GUSTAVE F. KRIESEL, Minneapolis, Minn., assignor, by mesne assignments, to Esther V. Safstrom, Minneapolis, Minn. Filed Apr. 24, 1918. Serial No. 230,412. Renewed Sept. 10, 1921. Serial No. 499,863. 17 Claims. (Cl. 29—26.)



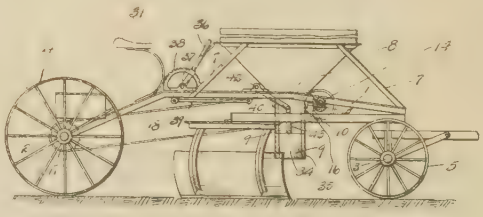
1. The combination, with a frame having an orifice and a surface around said orifice against which the piece of work is clamped, of a reciprocating member mounted in said frame for forward and backward movement with respect to said orifice, a tool-supporting shaft fitting within said member to move forward and backward therewith and revolve therein, a drive shaft, a transmission shaft geared to said drive shaft and said tool-supporting shaft, and a second transmission shaft having a driving connection with said tool-supporting shaft and with said reciprocating member.

1,415,879. METHOD OF CUTTING, SHAPING, AND POLISHING METAL ARTICLES. DELL LACY, Wilmington, Ohio, assignor to The Irwin Auger Bit Company, Wilmington, Ohio, a Corporation of Ohio. Filed Apr. 1, 1920. Serial No. 370,404. 3 Claims. (Cl. 76—108.)



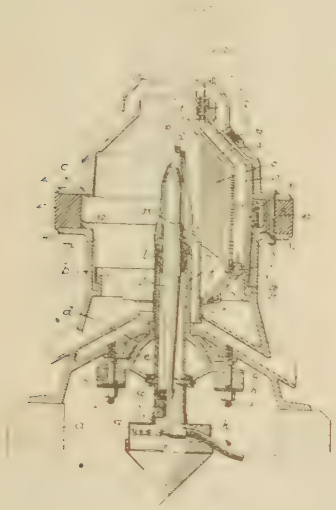
1. The herein described method of producing auger bits comprising forming a bar of stock, revolving and reciprocating the bar of stock against a rapidly revolving metal cutting wheel, the cutting wheel having configurations thereon adapted to act upon the stock to form the twist and the stem therebetween on said bar of stock, holding the stock in such relation to the wheel as the stock is turned and reciprocated so that a part of the configuration of the cutting wheel will form curved surfaces on the sides of the twist while other configurations of the wheel are simultaneously removing the surplus part of the stock and continuing this same operation until the twist and stem are reduced to a proper shape and size.

1,415,880. COMBINED GRADER AND MATERIAL-TRANSPORTING VEHICLE. JOHN T. LEINBERGER and JOHN L. ROTH, Monitor Township, Bay County, Mich. Filed Mar. 14, 1921. Serial No. 452,270. 2 Claims. (Cl. 96—44.)



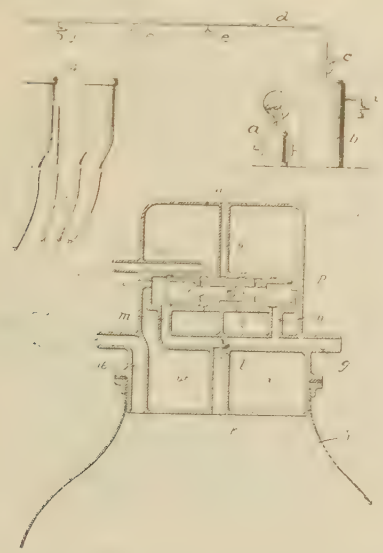
1. The combination with a grader, of a material hopper having a spout integral therewith, discharge openings in said spout and a ribbon conveyor transversely mounted therein, gates for closing said discharge openings, manually operated means for opening and closing said gates, and a foot lever for shifting a clutch into engagement for operating said screw conveyer.

1,415,881. CENTRIFUGAL OIL PURIFIER. MEREDITH LEITCH, Poughkeepsie, N. Y., assignor to The De Laval Separator Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 22, 1920. Serial No. 375,735. 31 Claims. (Cl. 233—21.)



1. In a centrifugal separator, a compound rotatable bowl comprising an inner member with a perforated periphery and an outer shell member, in combination with means to rotate the inner member either independently of, or in unison with, the outer member.

1,415,882. MILKING-MACHINE-OPERATING SYSTEM. MEREDITH LEITCH, deceased, late of Poughkeepsie, N. Y., by Lucy Burruss Leitch, administratrix, Montgomery, Ala., assignor to The De Laval Separator Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 6, 1920. Serial No. 428,450. 10 Claims. (Cl. 31—101.)



1. In a milking machine operating system, in combination, an air suction apparatus, a single pipe line connected therewith, means to intermittently open communication between the pipe line and the suction apparatus to cause momentary reductions of pressure in the pipe line and alternately therewith to block the pipe line against flow of air therethrough, a teat cup, a pulsator, a pneumatic connection between the teat cup and the pulsator, and means to pneumatically connect the pulsator with the pipe line, the pulsator being adapted, responsive to successive reductions of pressure, to be shifted in opposite directions to cause pneumatic pulsations in the teat cup.

3. In a milking machine operating system, in combination, an air suction apparatus, a single pipe line connected therewith, means to close communication between the pipe line and the suction apparatus and alternately therewith to open said communication to cause momentary reductions of pressure in the pipe line, a cylinder, means adapted to connect opposite ends of the cylinder with the pipe line, a piston valve in the cylinder adapted, in one position, to close the connections between one end of the cylinder and the pipe line and in the opposite position to close connection between the other end of the cylinder and the pipe line, whereby each pressure reduction tends to draw the piston from one position to the other, a teat cup, and a pneumatic connection between the teat cup and the cylinder, there being ports and passages adapted, in the operation of the piston, to connect the teat cup alternately with the pipe line and with atmosphere.

5. In a milking machine operating system, in combination, an air suction apparatus, a single pipe line connected therewith, means to close communication between the pipe line and the suction apparatus and alternately therewith to open said communication to cause momentary reductions of pressure in the pipe line, a cylinder, means adapted to connect opposite ends of the cylinder with the pipe line, a piston valve in the cylinder adapted, in one position, to close the connections between one end of the cylinder and the pipe line and in the opposite position to close connection between the other end of the cylinder and the pipe line, whereby each pressure reduction tends to draw the piston from one position to the other, a teat cup, and a pneumatic connection between the teat cup and the cylinder, there being ports and passages adapted, in the operation of the piston, to connect the teat cup alternately with the pipe line and with atmosphere, the arrangement of the ports and passages being such that the air when exhausted from the teat cup acts upon the end of the piston that at the time is receding.

7. In a milking machine operating system, in combination, an air suction apparatus, a single pipe line connected therewith, means to close communication between the pipe line and the suction apparatus and alternately therewith to open said communication to cause momentary reductions of pressure in the pipe line, a cylinder, means adapted to connect opposite ends of the cylinder with the pipe line, a piston valve in the cylinder adapted, in one position, to close the connections between one end of the cylinder and the pipe line and in the opposite position to close connection between the other end of the cylinder and the pipe line, whereby each pressure reduction tends to draw the piston from one position to the other, two teat cups, separate pneumatic connections from the teat cups to the cylinder, there being ports and passages adapted, in the operation of the piston, to admit air through one of said pneumatic connections to one teat cup and exhaust air through the other of said pneumatic connections from the other teat cup, and vice versa.

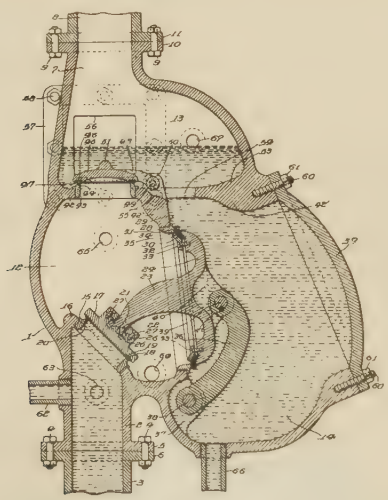
10. In a milking machine, in combination, an air suction apparatus, means to exhaust air therefrom, a pipe line, means to close communication between the pipe line and the suction apparatus and alternately therewith to open said connection to cause momentary reductions of pressure in the pipe, teat cups, a pulsator, pneumatic connections between the pulsator and the teat cups, the pulsator being operable responsive to said reductions of pressure to connect the teat cups alternately with atmosphere and the pipe line; said pulsator comprising a casing and a diaphragm dividing the same into two chambers, means providing free communication from one chamber to said pipe line and restricted communication from the other chamber to said pipe line, a valve movable by the diaphragm, a cylinder, a piston therein, there being ports and passages in the valve adapted to cause

movement of the piston and ports and passages in the piston and cylinder adapted to connect the teat cups, through said pneumatic connections, alternately with atmosphere and the pipe line.

1,415,883. CALENDAR AND DIARY PAGE. CHARLES FREDERICK LEWIS, Chicago, Ill. Filed Sept. 1, 1921. Serial No. 497,635. 6 Claims. (Cl. 283—2.)

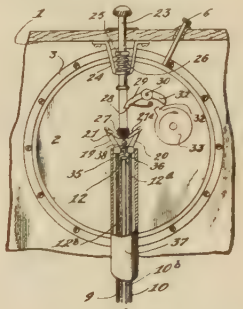
1. In a calendar or diary having a sheet for each day of the year, indicia showing the date and month and the name of the day of the week upon which said date falls in several successive years.

1,415,884. DRY-PIPE VALVE FOR FIRE EXTINGUISHERS. LEROY M. LEWIS, Philadelphia, Pa., assignor, by mesne assignments, to Central Automatic Sprinkler Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 15, 1920. Serial No. 365,747. 2 Claims. (Cl. 169—22.)



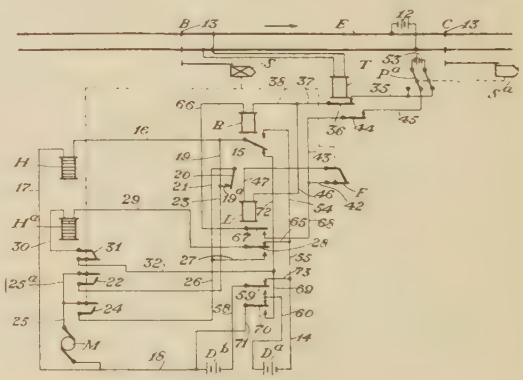
2. In an automatic dry pipe valve for fire extinguishing systems, the combination of a casing provided with an inlet, an outlet and a cushion chamber, a differential valve having the valves thereof in acute angular disposition, a short connecting arm rigid with one of said valves and universally connected to the other of said valves whereby the latter is self-adjustable to its seat, the smaller valve of said differential valve adapted to control the flow of extinguishing fluid through said casing and the larger valve of said differential valve located out of the path of the fluid passage between said inlet and said outlet, an arm pivotally mounted in said cushion chamber and rigidly secured to said larger valve, means to supply air pressure to said larger valve and means for cushioning the opening movement of said differential valve to prevent rebound thereof.

1,415,885. TIME LOCK FOR AUTOMOBILES. ARTHUR W. LYDA, North Canton, Ohio. Filed June 18, 1920. Serial No. 389,977. 2 Claims. (Cl. 200—39.)



2. In an electric circuit, a pair of switches, means for holding one switch normally open and means for holding the other switch normally closed, a plunger arranged to be depressed to close the normally open switch and open the normally closed switch, a spring pressed pawl arranged to hold the plunger in the depressed position and a time operated mechanism arranged to engage said pawl to release the plunger at a predetermined time.

1,415,886. RAILWAY SIGNAL. RONALD A. MCCANN, Swissvale, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Nov. 13, 1919. Serial No. 337,642. 14 Claims. (Cl. 246—223.)



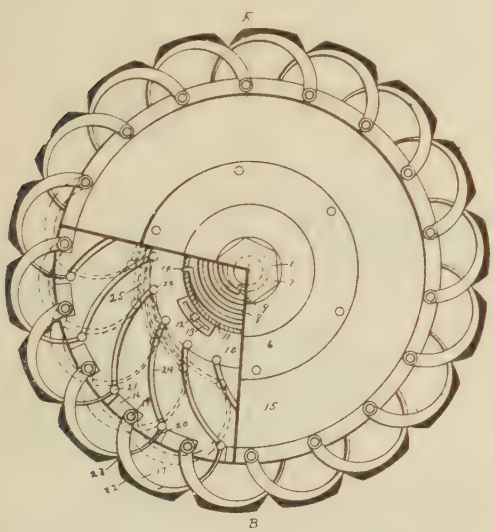
1. In combination, a signal mechanism comprising two arms biased to lower positions, a motor for moving each arm to an elevated position, means including a magnet for each arm for operatively connecting the arm with the motor and for holding the arm in the elevated position; a source of current; means for connecting said magnets in series across said source when both arms are elevated, and for connecting each magnet directly across said source at all other times when the magnet is functioning; and signaling means controlled by said arms.

1,415,887. ICE PICK. JAMES ALISON MCWILLIAMS, Chicago, Ill. Filed Dec. 31, 1921. Serial No. 526,090. 1 Claim. (Cl. 83—62.)

An ice pick comprising a handle provided with a slot extending longitudinally of the handle from the forward end thereof, a head secured on said handle at the forward

end of the latter and being formed with a slot registering with the slot of the handle, a pointed blade pivotally supported within the slot of the handle to extend through the slot of the head when in one position with respect to the handle, a latching cap threadedly engaging the head for co-acting with the latter to releasably hold the blade against movement relatively to the head, said latching cap being formed with a slot therein adapted to register with the slot of the head when the latching cap is in a certain position with respect to the head and with an arcuate slot extending along the edge thereof, and a stop pin carried by said head in position to engage with said last named slot to limit the rotation of the latching cap about the axis of the head.

1,415,888. RESILIENT WHEEL FOR VEHICLES. ARTHUR T. MALTBY, Chicago, Ill. Filed Feb. 21, 1918. Serial No. 218,470. 10 Claims. (Cl. 152—30.)

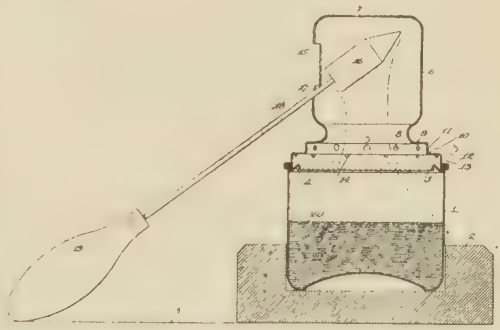


1. The combination in a resilient wheel, for vehicles, of a central hub member, adapted to be mounted on the axle of a vehicle, and having two annular spaced part flanges said flanges arranged to support two spaced part circular side members, in lieu of spokes, the outer peripheries of said side members fastened together with spacing pieces interposed between, and forming a rigid wheel rim with openings to the interior of said wheel between said side members, a collapsible outer tread surface circumferentially surrounding said wheel rim, said collapsible tread surface consisting of a plurality of curved, outwardly projecting tread members, each of said tread members having one end divided into two arms and pivotally secured to said wheel rim, the opposite or movable end overlapping and passing between the said arms of the next succeeding member, and through said wheel rim between said side members, the intermediate portion of said tread members projecting outwardly from said wheel rim to form said outer tread surface, and cushioning means for holding the said tread members in operative resilient relation to said wheel rim, said means consisting of a metallic spring coiled spirally around said central hub member, the inner end of said spring demountably secured to said central hub member, the outer, movable end of said spring connected to a circular rotary disk, said rotary disk arranged to have rotary motion around said central hub member and also arranged for adjusting or changing the tension of said spring, and a plurality of connecting rods, each having one end connected to the movable end of one of said tread members and their opposite ends all connected consecutively around the periphery of said circular rotary disk in such manner and relation that any inward or collapsing movement of any one or more of said tread members will impart rotary motion to said rotary disk, thereby opposing the tension of said spring against said movement substantially as set forth.

1,415,889. EXPLOSIVE. JOHN R. MARDICK, New York, N. Y., assignor to Acheson Graphite Company, Niagara Falls, N. Y., a Corporation of New Jersey. Filed July 29, 1921. Serial No. 488,460. 2 Claims. (Cl. 52—14.)

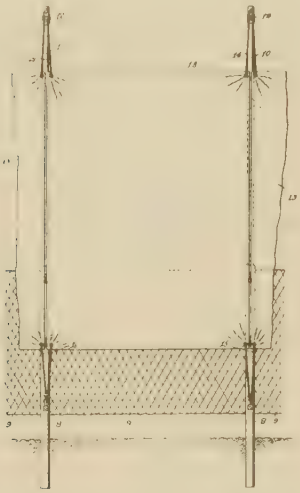
1. Black blasting powder provided with a characteristically uniform glaze of finely divided amorphous electrically produced graphite, such powder being characterized by improved covering and moisture resisting qualities, uniformity of carbon and mineral content, increased sensitiveness, uniform progression of fire and uniform velocity of explosion.

1,415,890. HEATER. GEORGE STANLEY MEIKLE, Manhattan, N. Y., assignor to S. Sternau & Company, Inc., Brooklyn, N. Y., a Corporation of New York. Filed Dec. 8, 1919. Serial No. 343,302. 5 Claims. (Cl. 126—239.)



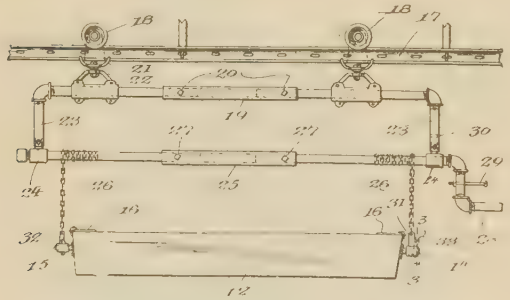
1. A heater comprising a hollow body and an integral portion forming a support for the body, there being a contraction between the body and support and forming a throat, a draft opening in the body in alinement with the throat, there being draft openings in the support, and means for gripping and supporting an article to be heated within the body and between the throat and the alined draft opening.

1,415,891. STACK-FORMING APPARATUS. ROBERT A. MINKS, Dewey, Ill. Filed Oct. 25, 1920. Serial No. 419,374. 3 Claims. (Cl. 130—20.)



1. In stack forming apparatus, rows of fixed posts arranged substantially on arcs of concentric circles, sections of foraminous material detachably mounted on said posts, auxiliary posts adjustably carried by the upper ends of said fixed posts, means for securing together the auxiliary and fixed posts, fabric sections detachably connected at their lower edges to the fixed posts, pulleys on the upper ends of the auxiliary posts, and cables connected to the upper edges of said fabric sections and passing over said pulleys.

1,415,892. CONVEYING APPARATUS. HERMAN C. MOEN and GEORGE H. BENSON, Cambridge, Wis. Filed Apr. 5, 1921. Serial No. 458,762. 2 Claims. (Cl. 212—136.)



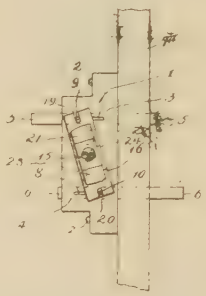
1. The combination with a receptacle; of a conveyer mounted for travel above the receptacle, and elevating means for the receptacle having a detachable connection therewith and supported by the conveyer, said elevating means including hoisting lines, bearings carried by the free ends of said lines, the receptacle having trunnions at its ends adapted to be removably seated in said bearings, one of the trunnions having a keeper recess, and a latch lever carried by one of the bearings and adapted to seat in said recess.

1,415,893. FOOD PRODUCT AND PROCESS. GEORGE MOORE, Joplin, Mo. Filed July 30, 1919. Serial No. 314,257. 5 Claims. (Cl. 99—11.)

3. A food product comprising peanut butter and bran, the bran being in a quantity sufficient for therapeutical action and less than forty per cent of the whole product, and the peanut butter containing the natural oil of the nuts.

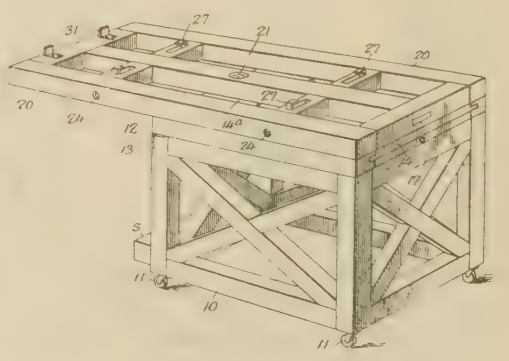
5. In the art of forming a food product, preparing peanut meat by pulverizing the nuts and mixing them with a little water, then boiling syrup to a point where it will form a soft consistent mass upon cooling, stirring into the syrup before cooling the prepared peanut meat, and mixing bran in the mass before cooling.

1,415,894. CUT-OFF VALVE FOR PNEUMATICALLY-OPERATED MUSICAL INSTRUMENTS. MAXIMILIAN W. OBERMILLER, New York, N. Y. Filed Dec. 18, 1920. Serial No. 431,598. 7 Claims. (Cl. 84—49.)



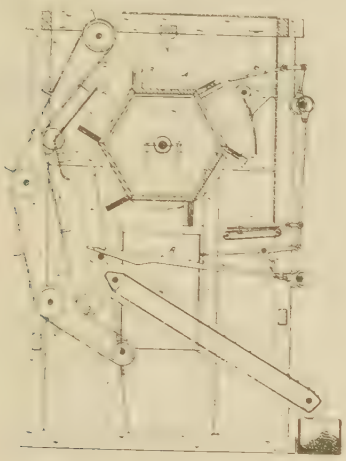
1. A cut-off valve for air conduits of pneumatic player mechanisms, comprising a block having air ports therein, a movable valve member having communicating recesses on its under face arranged for registration with the aforesaid ports, and manually operated means to move the valve first in one direction and additional manually operated means to move the valve in an opposite direction to cause said recesses to move into and out of register with said ports to connect and disconnect them.

1,415,895. POLISHING TABLE. MAXIMILIAN W. OBERMILLER, New York, N. Y. Filed June 8, 1921. Serial No. 476,004. 7 Claims. (Cl. 144—288.)



1. A piano polishing table comprising a base, a frame hinged to said base, and a second frame in pivotal relation to and longer than the first frame and projecting beyond both the first frame and base, and means to reciprocate the second frame.

1,415,896. METHOD OF SHELLING PEAS. CLARENCE H. PLUMMER, Kewaunee, Wis. Filed June 17, 1918. Serial No. 240,392. 5 Claims. (Cl. 130—30.)

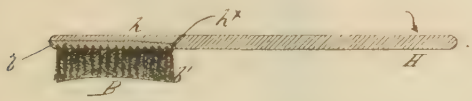


1. The method of removing green peas from their pods and vines which consists in dropping them in free air, subjecting the freely falling pods to a beating operation, agitating them to shake out the free peas, and repeating the dropping and beating operations.

1,415,897. METHOD OF TREATING SULPHIDE ORES. CHARLES J. REED, Glenside, Pa. Filed June 9, 1920. Serial No. 387,729. 5 Claims. (Cl. 23—13.)

1. The process of treating sulphide ores which comprises heating the same under non-oxidizing conditions to vaporize sulfur, treating the residue with sulfuric acid whereby hydrogen sulphide is evolved and metal sulfate is formed, and converting the metal sulfate to metal oxid and sulfuric anhydride.

1,415,898. TOOTHBRUSH. BENJAMIN H. ROST, New York, N. Y. Filed July 26, 1920. Serial No. 399,143. 1 Claim. (Cl. 15—176.)

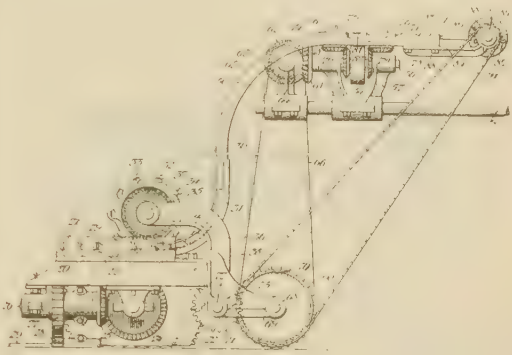


As an improved article of manufacture, a tooth brush comprising a rigid handle the forward portion of which is formed with an open-end elongate dovetail mortise the rear portion of the floor of which is inclined outward and terminates in an approximately rectangular transverse shoulder, and a removable brush the back of which is of dovetail shape in cross section and the insert end of which is inclined and terminates in a transverse rectangular shoulder for engagement with that at the rear end of said handle mortise, whereby the inward thrust of the brush is limited and prescribed as related to the handle, as and for the purpose set forth.

1,415,899. FLOTATION AGENT AND METHOD OF PRODUCING THE SAME. RALPH E. SAYRE, Pittsburgh, Pa., assignor to Metals Recovery Company, New York, N. Y., a Corporation of Maine. Filed Jan. 31, 1921. Serial No. 441,514. 12 Claims. (Cl. 252.)

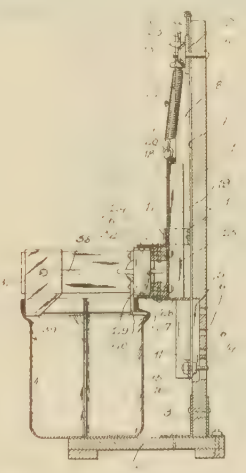
12. A composite flotation agent comprising a solvent having marked frothing qualities and a plurality of thiourea compounds produced therein by the combination of carbon bisulfide with anilin and substituted anilin.

1,415,900. TRAY-FEEDING MECHANISM FOR BOX-FILLING MACHINES. HENRY C. SCHUMACHER, Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 26, 1919. Serial No. 347,302. 2 Claims. (Cl. 198—25.)



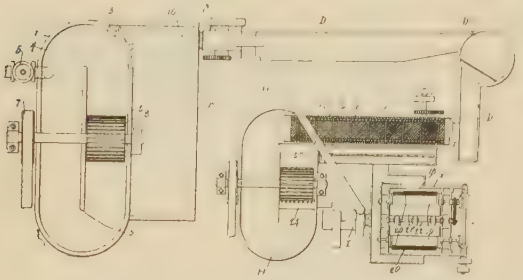
1. The combination with a conveyer having a succession of tray holders comprising spaced transverse walls, and means for impelling the conveyer, of means for feeding trays successively adjacent the receiving end of the conveyer, a rotary feed-wheel overhanging the receiving end of the conveyer and having spaced tappets which contact with the inner forward walls of the succeeding leading trays and also with the succeeding opposing walls of the tray holders, impositive means for actuating said wheel at a normally higher speed than the conveyer, and a connection between said impositive means and the said conveyer impelling means whereby the accurate positioning of the tappets in relation to the proximate trays and the respective walls of the conveyer is maintained.

1,415,901. BAG HOLDER. JOHN N. SCHWALEN, New Richmond, Wis. Filed July 21, 1921. Serial No. 486,552. 4 Claims. (Cl. 83—26.)



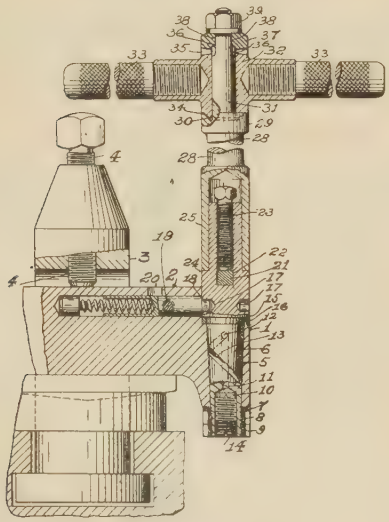
1. A sack holder comprising a support, a hanger slidably carried by said support and yieldably held against downward movement, a longitudinally slotted cross bar carried by said hanger and having upper and lower flanges, carrier blocks between the flanges of said cross bar and adjustable longitudinally thereof, arms pivotally connected with the outer end portions of said blocks and extending forwardly and rearwardly thereof, springs connected with said blocks and extending through the slot of the cross bar and connected with the rear ends of said arms, and sack engaging means carried by said blocks and the forward portions of said arms.

1,415,902. APPARATUS FOR MAKING PULP USED IN THE MANUFACTURE OF PAPER. CHARLES W. SHARTLE, Middletown, Ohio. Filed June 17, 1920. Serial No. 389,582. 6 Claims. (Cl. 92—20.)



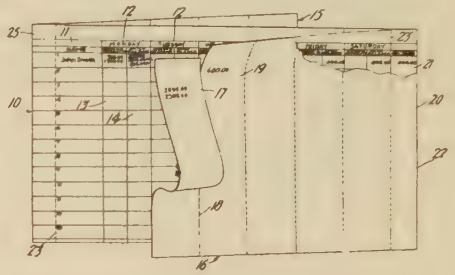
1. In a pulp reducing apparatus, the combination, with a breaker adapted to be charged with raw stock and to grind the stock to initial reduction, or a settling trough, means to deliver the reduced material from the breaker to said trough, screening mechanism into which the floating material is delivered from the settling trough, thickening mechanism connected to receive the screenings from the screening mechanism and adapted to separate water from these fine screenings and to deliver them as one finished product, and a beater arranged to receive the tailings from said screening mechanism and adapted to continuously reduce said tailings and having a discharge opening for the fine material produced thereby, whereby another finished product is delivered.

1,415,903. RADIUS TOOL. ANDREY SHEBERASHENKO, Detroit, Mich. Filed Sept. 3, 1921. Serial No. 498,436. 5 Claims. (Cl. 29—98.)



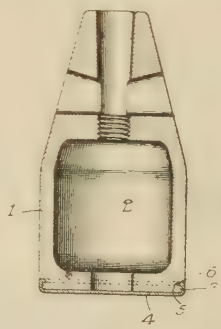
1. In a tool of the character described, a stock or member provided with a shank adapted to be supported in a tool post and with a tapering bore to receive a rotatable spindle, a spindle fitted to the bore of said stock and provided with a lateral opening to receive a cutting tool, a cutting tool mounted in said opening, a set screw adapted to secure the tool in the spindle, means adapted to engage the spindle to secure it against rotation in the stock, a socket member adapted to engage said spindle having a projecting shank manually operated means loosely sleeved upon the shank of said socket member, and means for securing said handle rigidly to the shank of the socket member when the handle is adjusted.

1,415,904. LEDGER SHEET. JESSE A. B. SMITH, Stamford, Conn., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 30, 1919. Serial No. 293,641. 13 Claims. (Cl. 283—57.)



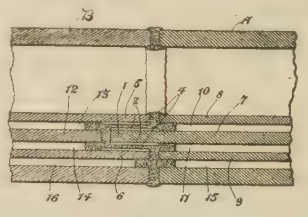
1. The combination with a "Boston" ledger-sheet, for use in a combined typewriting and computing machine in which computation of a transaction for any day involves the typing of the previous balance and the running of the same into the register, said ledger-sheet having day columns, each including subsidiary columns for transactions and daily balances, of means to take the place of the "pick-up" columns which would otherwise be necessary in the ledger-sheet, said means comprising a "pick-up" sheet attached at one edge to and normally overlying the ledger-sheet, and comprising a plurality of temporary "pick-up" columns separated by lines of less strength so positioned as to coincide with the lines between the day columns, exposure of any day column in which it is desired to compute being effected by detaching the corresponding portion of the "pick-up" sheet and withdrawing it from overlying position.

1,415,905. BUTT FOR SAND RAMMERS. EDWARD W. STEVENS, Detroit, Mich., assignor to Chicago Pneumatic Tool Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 2, 1920. Serial No. 400,599. 5 Claims. (Cl. 22—187.)



1. A sand rammer butt comprising a body made of a light soft material and a separate end made of sheet metal.

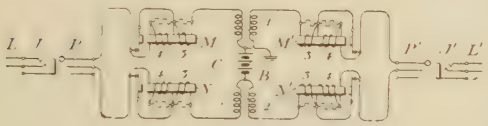
1,415,906. INTERLOCKING TILE. VANCE E. TAYLOR, St. Louis, Mo. Filed July 14, 1919. Serial No. 310,799. 1 Claim. (Cl. 72—41.)



An interlocking tile structure comprising tile sections, one of which is provided with an end groove and the

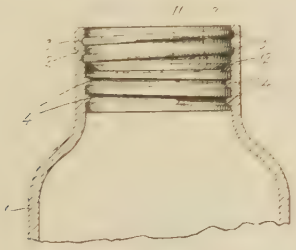
other with an end tongue entering into said end groove, each of said tile sections being provided with a plurality of cavities which extend longitudinally through said tile sections, the cavities of one tile section being adapted to register with the cavities of another tile section when said tile sections are placed in juxtaposition, one of the cavities in the tile section having a tongue being located immediately above said tongue and another of said cavities being located immediately below said tongue, and a mortar seal connecting said tile sections together, said mortar seal being interposed between the edges of adjacent tile sections and extending into and entirely filling the end portions of said cavities adjacent to said tongue and groove.

1,415,907. MEANS FOR EQUALIZING TRANSMISSION OVER LINES OF DIFFERENT ELECTRICAL CHARACTERISTICS. GEORGE K. THOMPSON, Maplewood, N. J., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Oct. 29, 1918. Serial No. 260,150. 12 Claims. (Cl. 178—44.)



3. The combination of a plurality of transmission lines having different electrical characteristics, a link circuit for interconnecting said lines, impedances in said link circuit, and relays responsive to current flow over said lines to increase the impedance of said link circuit as the current flow over the lines with which it is connected tends to increase so that the transmission will be substantially equalized over all of the lines with which the link circuit may be associated.

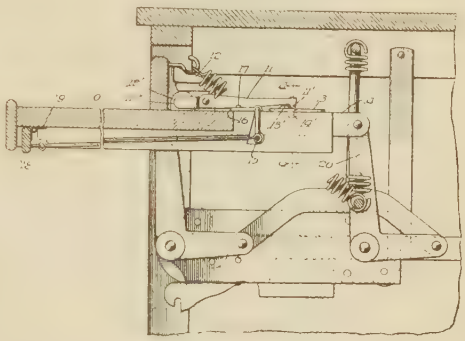
1,415,908. JAR CLOSURE. NIELS THOMSEN TOFTING, Bradgate, Iowa. Filed Oct. 5, 1921. Serial No. 505,490. 2 Claims. (Cl. 215—50.)



1. In a jar closure, a lower section comprising a solid member formed with peripheral grooves, a finger piece integral with the body of said member, a spacer ring adapted to rest upon said lower section, an upper shell-like section formed with peripheral ribs pitched in a direction opposite to the grooves of said lower section, a lip terminating one end of said upper closure section and adapted to rest upon said spacer ring, and cross bars at the opposite end of said upper section.

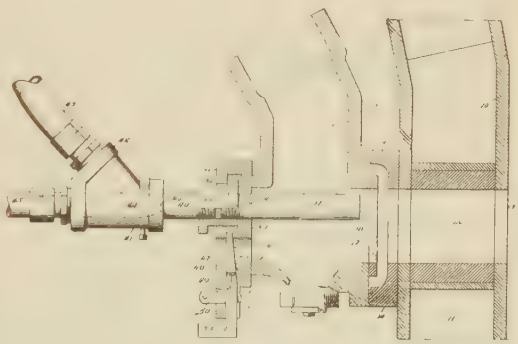
1,415,909. TYPEWRITER DESK. JENS VAALER, Chicago, Ill., assignor to Clemetsen Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 18, 1916. Serial No. 115,724. 12 Claims. (Cl. 45—52.)

1. The combination, in a desk, of a platform mounted for movement into and withdrawal from the desk body, a latch pivoted to the desk body on the inner side thereof, means secured to the platform to co-operate with the latch for locking the platform against outward movement, and means secured to the under side of said platform and operable from substantially any point across the front edge of the platform for releasing the latch.



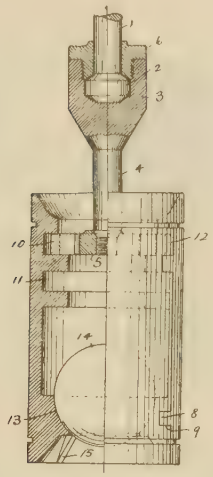
5. In combination, a desk, a movable platform mounted therein adapted to be moved forwardly and rearwardly with respect thereto, automatic means for stopping said platform at the limit of its rearward motion, and automatic means cooperating therewith to continually wedge the platform tighter upon subsequently attempted vibration thereof.

1,415,910. BLAST-FURNACE TUYÈRE CAP FOR PULVERIZED COAL. RICHARD A. WAGSTAFF, Salt Lake City, Utah, assignor to American Smelting and Refining Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 15, 1920. Serial No. 365,829. 23 Claims. (Cl. 266—28.)



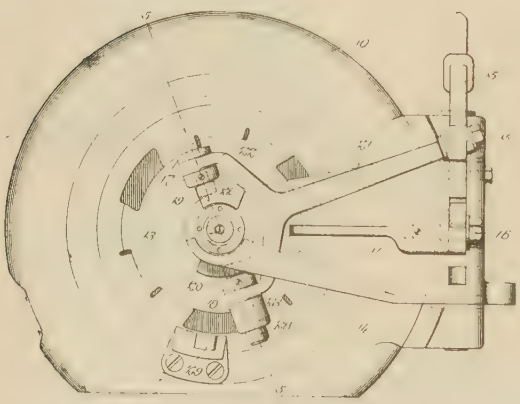
1. In a furnace structure, the combination of a furnace provided with a tuyère body in communication with the interior of the furnace, said body provided with an opening on the side thereof opposite the furnace, a cap for closing said opening, a feed tube for conducting fuel to the furnace, said tube carried by the cap, extending therethrough and through said opening into the interior of the tuyère body, easily separable means for securing the tube to the cap and for permitting the ready dismounting of the tube from the cap, said tube being removable as a unit with the cap.

1,415,911. PUMP PLUNGER. THOMAS M. ADAMS, Houston, Tex. Filed Apr. 11, 1921. Serial No. 460,480. 3 Claims. (Cl. 103—63.)



1. The combination with a pump rod of a hollow plunger formed of radially movable sections and having a swivelling connection with the rod, a valve seat within the plunger, and a valve controlling said seat.

1,415,912. BREECH MECHANISM. DORSEY F. ASBURY, Washington, D. C. Filed July 13, 1920. Serial No. 395,869. 21 Claims. (Cl. 89—20.)

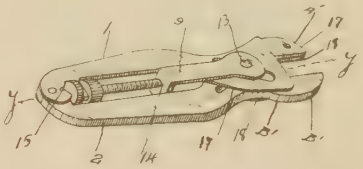


1. In a breech mechanism, a rotatable plug, an actuating lever, a plug operating member, a bearing connection between one end of the member and plug, and a bearing connection between the other end of the member and lever, said last named bearing connection having its axis disposed longitudinally of the member.

1,415,913. ARTIFICIAL BAIT. WILLIAM AUBERLIN, Northfield, Ohio. Filed June 4, 1921. Serial No. 474,947. 5 Claims. (Cl. 43—48.)

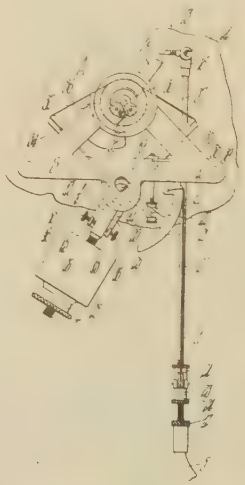
3. An artificial bait comprising a concave sheet metal body having a downwardly projecting tongue, and a pair of wings hinged to the sides of the body and adapted to stop against said tongue when partly folded.

1,415,914. ADJUSTABLE WRENCH. LOUIS E. BALTZLEY, Bloomfield, N. J. Filed Mar. 19, 1918. Serial No. 223,442. 2 Claims. (Cl. 81—113.)



1. A wrench comprising two members provided with substantially parallel opening jaw pieces at one end, one of said members being formed of a single thickness of metal and the other member made of two similar pieces for the single piece member to operate therebetween, said members being pivoted together near the ends thereof remote from the jaws, and said members being provided with slots near said jaws and inclined relative to one another, a yoke with pivot to operate in said slots, and a screw, one end of which is seated at the pivotal end of said members and the other end of said screw arranged to cooperate with the yoke to open and close the jaws.

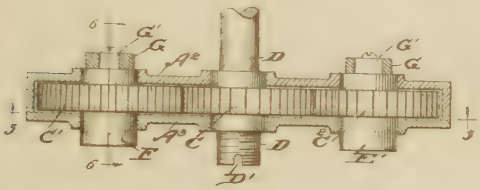
1,415,915. WEIGHING MECHANISM. HENRY B. BARTLETT, Holyoke, Mass., assignor to B. F. Perkins & Son, Inc., Holyoke, Mass., a Corporation of Massachusetts. Filed Oct. 3, 1919. Serial No. 328,247. 8 Claims. (Cl. 265—62.)



1. In a weighing mechanism, a weight arm pivoted on a knife edge for swinging movement, a load-receiving mem-

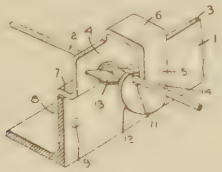
ber connected to swing such arm, a pointer arm separately pivoted for swinging movement in a plane parallel to that of the weight arm, and means connecting the weight arm pivot and pointer pivot including drums on one and arms on the other pivot and flexible tapes connecting each drum to its respective arm, each tape being secured at one end to one of the drums and at its opposite end to one of the arms.

1,415,916. BENCH TIRE TOOL. JOHN W. BARTON, Flint, Mich. Filed Mar. 8, 1920. Serial No. 364,142. 7 Claims. (Cl. 85—57.)



6. In a device of the character described, a supporting frame, a crank shaft journaled in the supporting frame, a gear keyed to the crank shaft, socket wrenches mounted within the frame, gears keyed to the socket wrenches and meshing with the gear on the crank shaft, the said socket wrenches slidably engaging a nut screw-threaded on a valve body, and means for holding the latter against rotation when the securing nut on the valve body is being removed or replaced by the rotation of the wrenches.

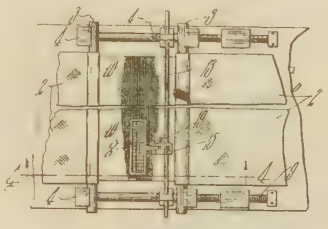
1,415,917. DETECTOR FOR ROVING AND SIMILAR MACHINES. THOMAS BENTLEY, Dracut Center, Mass., assignor of one-half to Bentley Machine Company, Dracut Center, Mass., a Corporation of Massachusetts. Filed Mar. 14, 1921. Serial No. 452,008. 4 Claims. (Cl. 119—25.)



4. In a roving machine or the like, the combination with a supporting rail, of a plurality of separate guiding members thereon, each guiding member having two guiding portions separated in the direction of the length of the sliver, one guiding portion of each guiding member having its lower edge spaced from the rail and provided with a sliver-guiding notch into which the sliver may be entered by passing it between the rail and said lower edge, the other guiding portion of each member having a sliver-guiding notch open at the top, whereby each sliver is supported by the rail and in the last-named notch and is guided by both notches, a detector pivoted between the guiding portions of each guiding member and adapted to rest on the sliver, and means for securing each guiding member to said supporting rail with both guiding portions on the same side of but spaced from the rail.

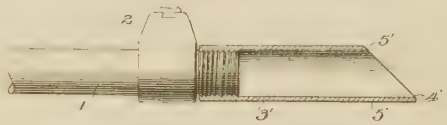
1,415,918. BAND-JOINING DEVICE. JOHN D. BROWNE, Springfield, Mass. Filed Mar. 25, 1921. Serial No. 455,612. 1 Claim. (Cl. 140—109.)

Apparatus for facilitating the joining of the ends of Fourdrinier wire comprising, an apron to partially encompass the wire when mounted on its roll, rods fixed to each end of the apron, mechanism located at each side of the apron for moving the rods toward one another for tightening the apron each of which comprises, a shank having a head fixed to one end thereof that is provided with a recess for receiving an end of one of said apron rods, a block fixed to the opposite end of said shank, a member sidable upon the said shank between the



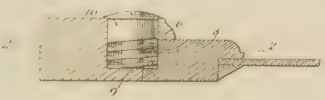
said head and block for supporting one end of the other of said apron rods and a screw threaded in the block and adapted to abut the slidable member for the tightening operation.

1,415,919. FLASH HIDER AND RECOIL ABSORBER. JOHN S. BUTLER and ELBERT FOWLER, U. S. Army. Filed Jan. 23, 1919. Serial No. 272,772. 4 Claims. (Cl. 42—1.) (Filed under the act of Mar. 3, 1883, 22 Stat. L., 625.)



1. A flash hider and recoil absorber embodying a tubular extension attachable to the muzzle of a fire arm, said extension formed with an annular groove near one end thereof, a split nipple encircling the extension, means on the nipple engaging the groove to lock the nipple to the extension, and means for securing the nipple against rotary movement with respect to the extension, the said nipple having a cutaway portion in its upper wall and an inclined lower wall underlying the cutaway portion.

1,415,920. COMBINED SCREEN AND STORM DOOR. FRED L. CIZEK, Cedar Rapids, Iowa. Filed Nov. 29, 1921. Serial No. 518,672. 2 Claims. (Cl. 20—36.)

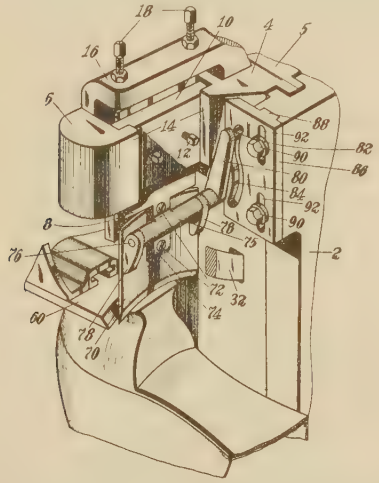


1. The combination with a door rabbeted to receive screen or storm-sash, and bored to receive fasteners, of sash partially bored coincidently with the door, clamping-plates set across said partial boring, and deeply-threaded fasteners set in the bored holes, and intercepting the clamping-plates at one side.

1,415,921. CUTTING MACHINE. CHARLES E. CONNER, Auburn, Me., assignor to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 13, 1918. Serial No. 253,901. 32 Claims. (Cl. 12—47.)

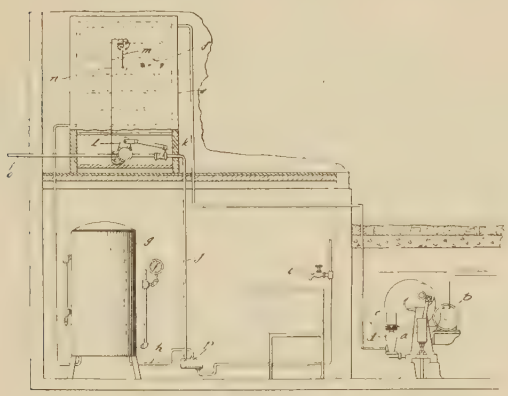
1. In a machine of the class described, the combination of a knife for effecting a cutting operation upon the breast of a shoe heel, and means for varying the shape of the cutting edge of the knife during its cutting action.

30. In a machine of the class described, the combination of a flexible knife, and means for giving the knife an initial transverse curvature at the beginning of its cut,



increasing the curvature of the knife during the cut and restoring the normal curvature to the knife before the cut is finished.

1,415,922. REFRIGERATING APPARATUS. LLOYD G. COPEMAN, Flint, Mich., assignor to Edwin W. Atwood, Flint, Mich. Filed Jan. 28, 1921. Serial No. 440,636. 5 Claims. (Cl. 62—6.)



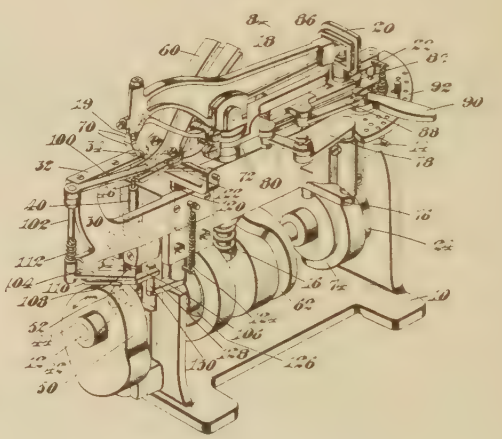
2. In a refrigerating apparatus, the combination of a refrigerator box, a water line passing through the box for keeping the box within a predetermined range of temperature, service taps connected with said water line on the side of the refrigerator box remote from the water source, a waste line connected with said water line on the side of the box remote from the water source, a thermostat affected by the temperature in the said box, a valve operated by the thermostat for controlling the flow through the waste line, and automatic means for cutting out the flow through the waste line when one or more of the service taps are open.

1,415,923. PREPARED-ROOFING SHINGLE STRIP. ROSCOE B. CRABBS, Cincinnati, Ohio, assignor to The Philip Carey Manufacturing Company, a Corporation of Ohio. Filed May 24, 1919. Serial No. 299,538. 1 Claim. (Cl. 108—7.)

A shingle strip having a body portion, portions representative of spaced shingle ends, and portions between said last named portions extending from one edge of the strip to points intermediate opposite edges of the strip, to simulate spaces between shingles, said strip being composed of a base saturated with bituminous material having an area co-extensive with all of said portions, a layer of bituminous bonding material on said base and having an area at least co-extensive with said body portion and portions representative of shingle ends, and a

layer of mineral particles arranged over the entire body portion and portions representative of shingle ends, the portion of the strip covered with mineral particles being of uniform thickness throughout, and the portions of the strip simulating spaces between shingles being free of mineral particles and of less thickness than the mineral surfaced portion by an amount substantially equal to the depth of the mineral covering.

1,415,924. MACHINE FOR INSERTING FASTENERS. JOHN F. DAVEY, Beverly, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 8, 1918. Serial No. 210,890. 24 Claims. (Cl. 218—14.1.)

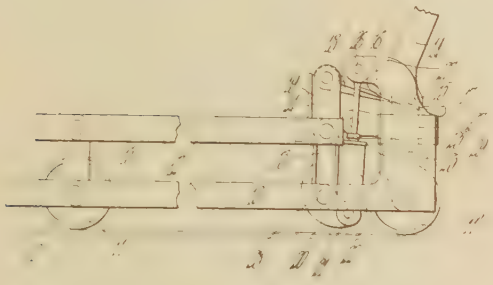


1. A fastener-inserting machine comprising a clenching member formed and arranged to clench a blind or invisible eyelet between superposed layers of an article of work, an eyelet-inserting tool and a punching tool telescopically related and arranged to function against one side of said clenching member, means arranged to operate said punching tool relatively to said inserting tool while in registration with said clenching member, means arranged to operate said inserting tool relatively to said punching tool while in registration with said clenching member, and work-punching means arranged to function against the opposite side of said clenching member substantially opposite the clenching area thereof.

1,415,925. COMPOSITION OF MATTER FOR AND METHOD OF SOLDERING AND WELDING ALUMINUM. PHILIPPE DE CLAMECY, Boston, Mass., assignor to B. F. Sturtevant Company, Boston, Mass., a Corporation of Massachusetts. Filed July 8, 1919. Serial No. 309,422. 2 Claims. (Cl. 148—23.)

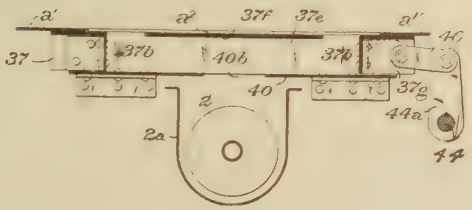
1. A composition of matter for soldering or welding aluminum comprising aluminum, tin, nitrate of silver, and chloride of silver.

1,415,926. ELEVATING TRUCK. FRANK L. EIDMANN, Holyoke, Mass., assignor to J. Lewis Wyckoff, Edward N. White, and George F. Jenks, Holyoke, Mass., trustees, doing business as Cowan Truck Company. Filed Aug. 4, 1919. Serial No. 315,287. 6 Claims. (Cl. 254—10.)



1. In an elevating truck, a base frame, having a head extending upwardly therefrom, an elevating platform movable up and down on said base, an arm pivoted on said base and connected to swing with the up and down movement of said platform, and a vertically disposed checking mechanism connected between said swinging arm and the head for controlling the descent of said platform.

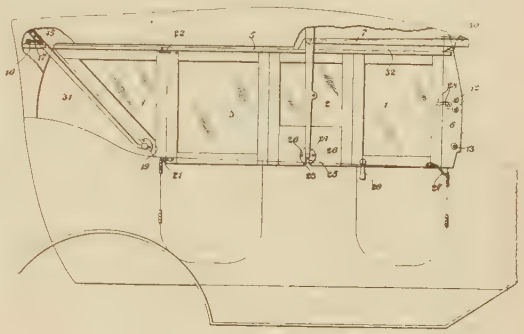
1,415,927. FUEL-FEEDING MECHANISM. ADAM B. FAHNESTOCK, Great Neck, N. Y., assignor, by mesne assignments, to Elvin Mechanical Stoker Company, Wilmington, Del., a Corporation of Delaware. Filed Dec. 28, 1918. Serial No. 268,636. 2 Claims. (Cl. 83—26.)



1. In an apparatus for delivering disintegrated material, the combination with an elongated hopper of substantially rectangular shape, of a discharge opening in the bottom of said hopper, a reciprocating agitator also of rectangular shape, a top plate carried by said agitator provided with a longitudinal opening at all times in communication with and located beneath the discharge opening of said hopper, through which the contents of the hopper are continuously discharged, said agitator also being provided with a longitudinal member and a multiplicity of spaced, transversely extending bars, and a stationary drop plate beneath the agitator, the longitudinal member of said agitator being operative to push the material from the drop plate to increase or decrease its continuous discharge therefrom.

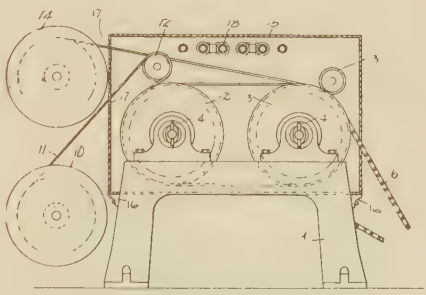
1,415,928. VEHICLE BODY INCLOSURE. JAMES B. FISHER, St. Louis, Mo. Filed Feb. 18, 1920. Serial No. 359,494. 5 Claims. (Cl. 296—45.)

1. The combination with a vehicle body having a swinging door and a cape top; of a frame including a top stringer extending from the front end to the rear below a side edge of the top, a device removably supporting the rear end of the stringer in connection with the top, and a removable upright member supporting the forward



end of the stringer and the top; a plurality of panels arranged to be supported by the frame; and hinges connecting the front panel with said upright member and also with the vehicle body in a manner to swing with the door of the body.

1,415,929. METHOD OF AND APPARATUS FOR CONTINUOUS VULCANIZING. OLIVER GROSVENOR, Akron, Ohio. Filed Feb. 5, 1921. Serial No. 442,610. 15 Claims. (Cl. 18—6.)

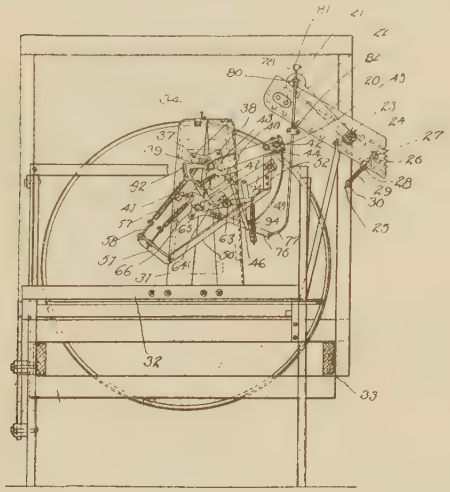


1. In a machine for continuously vulcanizing strip material, the combination of a base, two internally heated drums rotatably mounted on said base, said drums being adapted to receive the material to be treated on their surfaces, such material passing continuously around from one to the other of said drums, and means for revolving said drums and thereby move such material to vulcanize the same at a predetermined rate.

1,415,930. FIBER-HANDLING MECHANISM. LUD. HOLLAND-LETZ, Oak Park, Ill., assignor to International Harvester Company, a Corporation of New Jersey. Filed July 17, 1919. Serial No. 311,522. 27 Claims. (Cl. 19—13.)

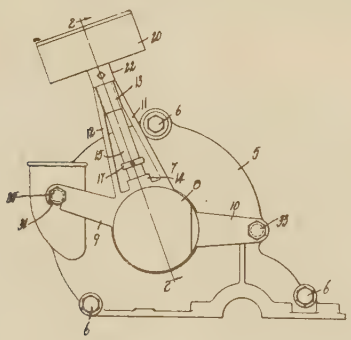
1. Means for handling fiber, including a supporting

member in combination with means for receiving fiber as it is being fed longitudinally, and means for positioning



said fiber transversely on said supporting member so that it may be fed in a direction transverse to its length.

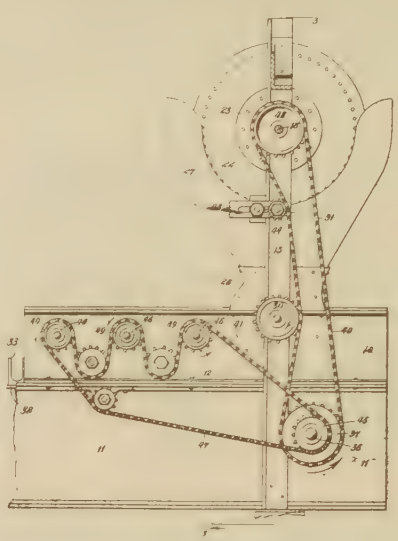
1,415,931. COMMUTATOR. HORACE W. HOWES, Waltham, Mass. Filed Sept. 22, 1920. Serial No. 411,943. 7 Claims. (Cl. 123—146.5.)



1. A commutator for internal combustion engines having, in combination, a frame, a sleeve rotatably mounted therein and supported at its opposite ends by bearings in said frame, a shaft rotatably mounted in said sleeve, a rotary contact member fast to said shaft, a plurality of stationary contact members adapted to be engaged by said rotary contact member, spaced apart, mounted upon said sleeve and insulated therefrom, means to rotate said shaft, and means to simultaneously adjust said stationary contact members concentrically with said shaft.

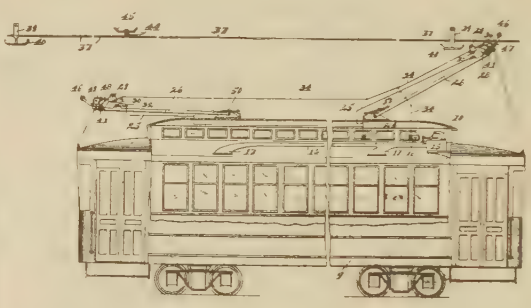
1,415,932. MECHANISM FOR FEEDING ELONGATED ARTICLES. CLARENCE A. HOY, Buffalo, N. Y., assignor to Peerless Husker Company, Buffalo, N. Y., a Copartnership. Filed Apr. 5, 1920. Serial No. 371,366. 5 Claims. (Cl. 198—29.)

1. A mechanism for feeding elongated articles to a movable carrier having pockets arranged transversely to the direction of movement of the carrier, comprising a plurality of closely-spaced separating and alining bars arranged above said carrier and parallel with the pockets thereof and adapted to receive on their upper sides the articles to be fed and to discharge the same from their



underside into said pockets in a position parallel with the latter.

1,415,933. STREET INDICATOR. JOHN R. HUME, Chicago, Ill. Filed Jan. 5, 1920. Serial No. 349,563. 11 Claims. (Cl. 246—174.)

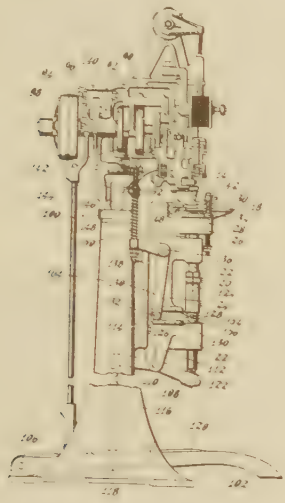


2. In combination with a trolley car carrying a street announcing machine; means for retaining said machine against operation; a local electric circuit including means for releasing said retaining means upon closing the said circuit; means mounted on said car for closing said circuit; and additional means mounted on said car and actuated by means on the trolley wire for breaking said circuit, substantially as described.

1,415,934. KEY RING. PHILIP JOFFE, New York, N. Y. Filed Dec. 28, 1918. Serial No. 268,584. 5 Claims. (Cl. 59—98.)

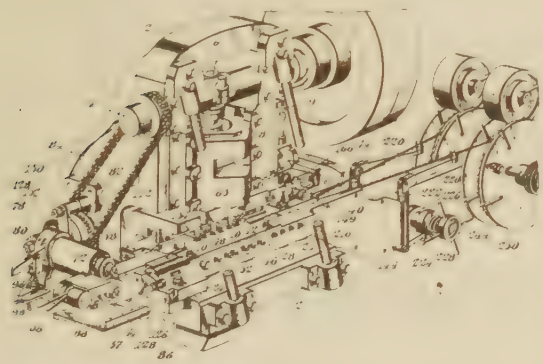
1. A key ring adapted to receive and retain keys removably thereon having one end thereof turned upon itself to form a loop, and the other end thereof enclosing said loop.

1,415,935. FASTENING-INSERTING MACHINE. FRED N. LA CHAPELLE, Beverly, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 1, 1919. Serial No. 280,033. 28 Claims. (Cl. 12—17.)



1. In a machine of the class described, a work support, fastening inserting mecahnism, and work shaping means mounted between the work support and said mechanism and having portions controlled by said work support and movable toward each other in a pressing operation to shape the work prior to the insertion of the fastening.

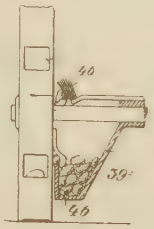
1,415,936. MACHINE FOR MAKING NAIL STRINGS. ALBERT LATHAM, Beverly, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 5, 1918. Serial No. 257,034. 58 Claims. (Cl. 10—45.)



2. The method of making nail strings which consists in positioning a plurality of metal strips side by side with their contiguous edges in contact and then dieing out spaced portions from the contiguous edges of the strips to form them into nail strings.

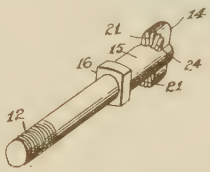
1,415,937. APPARATUS FOR PLANTING POTATOES AND THE LIKE. WILHELM LIPPITZ, Jauer, Germany. Filed Sept. 4, 1919. Serial No. 321,645. 7 Claims. (Cl. 221—127.)

1. In an apparatus for planting potatoes and the like, the combination with the dropping drum provided circumferentially with chambers for receiving and dropping the potatoes and provided in both its opposite side walls with openings permitting inspection of the chambers, of means



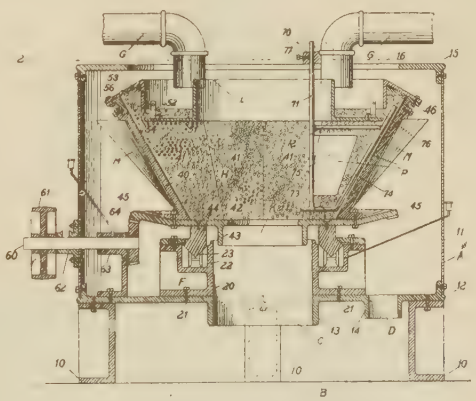
located on opposite sides of said drum to alternately supply potatoes through said openings and to said chambers.

1,415,938. BOLT LOCK FOR DEMOUNTABLE RIMS. WILLIAM E. LOTT, Newark, N. J. Filed Mar. 5, 1921. Serial No. 449,979. 2 Claims. (Cl. 85—1.)



1. The combination with a clamping member having a slotted opening, of a bolt having a cross head at one end, a nut on the other end of the bolt, a cam disc having a slot to permit passage of the bolt head and having a cam face on one side opposite each wall of the slot, adapted to engage the arms of the cross head, whereby turning of the disc in one direction will advance it on the bolt away from the head, said bolt having a flattened portion below the cross head to engage the slotted opening in the clamp piece to prevent turning of the bolt on the clamping member.

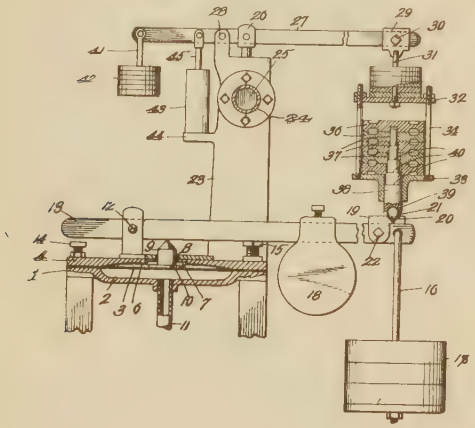
1,415,939. CENTRIFUGAL PULP-DRYING MACHINE. REXFORD C. MABRY, Nashua, N. H. Filed Apr. 28, 1921. Serial No. 465,192. 5 Claims. (Cl. 210—74.)



1. In a centrifugal machine for extracting liquid from paper pulp, the combination of a cone shaped screen with its large end at the top and its outlet at the bottom; and means for rotating said screen; with an annular feed hopper revoluble therewith having an annular outlet proximate the top rim of the screen; and a stationary member including a cleaning rod which extends proximate the conoidal inner surface of the screen and a compression guide plate proximate said rod and so set as to direct

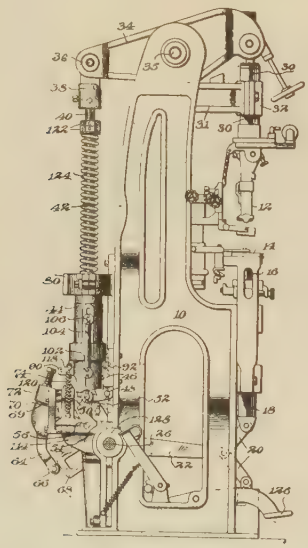
the thickened stock towards the outlet; together with wings extending outwardly and at an angle from the screen; and a water receiver which extends outside the screen and wings.

1,415,940. AUTOMATIC REGULATOR FOR BOILER FURNACES. WILLIAM J. MANHIRE, Kansas City, Mo., assignor to Combustion Specialty Company, Kansas City, Mo., a Corporation of Missouri. Filed May 27, 1920. Serial No. 384,766. 8 Claims. (Cl. 236—28.)



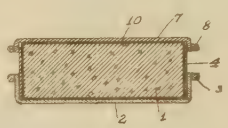
1. The combination of a pipe for supplying fluid under pressure to a fan engine, a controlling valve for said pipe, a counterbalanced lever for operating said valve, a series of weights carried by said lever for conjointly holding the valve fully open, and means actuated by fluid under pressure beyond a predetermined degree, for movement in one direction to successively relieve the lever of said weights to permit it to operate and impart closing movement to said valve; said means under decreasing pressure of the fluid, reverses its movement to successively reimpose said weights upon said lever.

1,415,941. HEELING MACHINE. BENJAMIN F. MAYO, Salem, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 21, 1918. Serial No. 212,978. 33 Claims. (Cl. 1—32.)



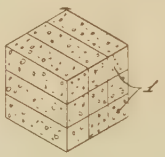
1. In a heeling machine, actuating mechanism for the machine, a co-operating jack-post and nail-block relatively movable under the influence of the actuating mechanism, and means controlled by the actuating mechanism and including relatively movable sections and an interposed resilient member for producing initial movement of the jack-post and the work.

1,415,942. PROCESS FOR FORMING CHEESE. JULIUS R. MEYERS, Glencoe, Ill. Filed Dec. 17, 1920. Serial No. 431,453. 7 Claims. (Cl. 99—11.)



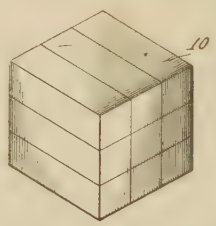
4. A process of forming cheese consisting of compressing curd to provide a large green cheese, dividing the large green cheese into pieces of predetermined size, compressing and locking the pieces of green cheese in individual molds, subjecting the filled molds to moist heat for a short period to cause expansion of the cheese within the molds to fill out irregularities in the surfaces of the cheese, then permitting the cheese to gradually cool in the molds, and then removing the cooled smooth cheeses from the molds and setting the removed cheeses away to be cured.

1,415,943. PROCESS OF MAKING CHEESE. JULIUS R. MEYERS, Glencoe, Ill. Filed Apr. 11, 1921. Serial No. 460,549. 11 Claims. (Cl. 99—11.)



6. The process of forming a rindless cheese by wrapping a piece of green cheese in a metallic wrapper, surrounding the metallic wrapper by a non-metallic covering, compressing the doubly wrapped cheese in a mold to force the air from between the cheese and the metallic wrapper, placing the mold in a room having a predetermined temperature, then gradually increasing the temperature of the room to expand the cheese and cause the formation of a sealing medium between the cheese surfaces and the metallic wrapper, then permitting the cheese to gradually cool in the mold, and then removing the cheese from the mold taking off the non-metallic covering and leaving the metallic wrapper in place.

1,415,944. PROCESS OF CHEESE PACKING. JULIUS R. MEYERS, Evanston, Ill. Filed Apr. 21, 1921. Serial No. 463,166. 5 Claims. (Cl. 99—8.)

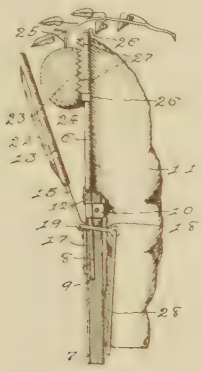


2. The process of protecting blocks of cheese including wrapping the blocks in a covering of metal foil and subsequently applying heat through the foil so as to form a bond between the cheese and the foil.

4. An article of manufacture, a block of cheese covered with a protective coating of metal foil, the same having

been incorporated into the outer surfaces of the cheese by fusion of the casein at the outer surfaces of the cheese effected by applying heat to the surfaces of the wrapped block.

1,415,945. FRUIT PICKER. JEMERSON MOORE, Oklahoma, Okla. Filed Feb. 6, 1920. Serial No. 356,735. 2 Claims. (Cl. 56—333.)



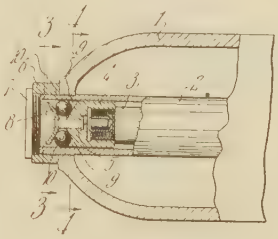
2. In a fruit picker, an annular jaw, a polygonal pole, the said jaw having ends turned downward upon opposite sides of said pole and inserted tightly in the latter, a metal clip hooked around the downturned ends and riveted to the pole, a flexible bag having its upper end secured to said jaw, with an edge portion of the bag drawn forward through the lower part of the jaw and secured to the upper end of the pole, and a jaw pivoted to the pole at a point below the first-named jaw and having a flexible covering and a pivotal portion mounted on the pole and having a crank portion and an eye embracing the same.

1,415,946. CHANNEL-FLAP-LAYING MACHINE. LEWIS J. MORRISON, Boston, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 12, 1920. Serial No. 373,079. 7 Claims. (Cl. 12—29.)

1. A channel flap laying machine having, in combination, a flap laying tool comprising a series of unyielding elements for delivering a succession of blows to the channel flap, and yielding means in engagement with the operative faces of such elements and bridging the spaces therebetween, whereby the blows are delivered through the yielding means and are dampened or softened.

1,415,947. BOMB STRUCTURE. ELMER E. NEAL, New Haven, Conn., assignor to Marlin-Rockwell Corporation, New York, N. Y., a Corporation of New York. Filed July 22, 1918. Serial No. 245,987. 8 Claims. (Cl. 102—39.)

1. In a bomb structure, safety means, comprising in combination, a firing pin, a striking plug, a firing pin holder, said striking plug and firing pin holder being relatively movable toward and from each other, and antifriction balls located between the striking plug and firing

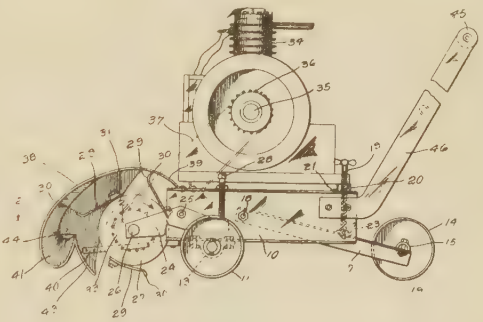


holder to normally prevent movement of said striking plug and said firing pin holder toward each other when the bomb is assembled, all for the purpose described.

1,415,948. HAND GRIP FOR FILES. JOHN L. OSGOOD, Buffalo, N. Y. Filed Feb. 16, 1921. Serial No. 445,343. 4 Claims. (Cl. 29—80.)

1. A hand grip for the unhandled front ends of files, comprising a resilient body having an external transverse shoulder which is adapted to bear against the hand of an operator, said hand grip having a socket which extends into said body beyond said shoulder and which is adapted to receive the end of a file.

1,415,949. ROOF-SCRAPING MACHINE. JOSEPH S. PERELMAN, Norwood, R. I. Filed May 24, 1921. Serial No. 472,219. 7 Claims. (Cl. 144—115.)

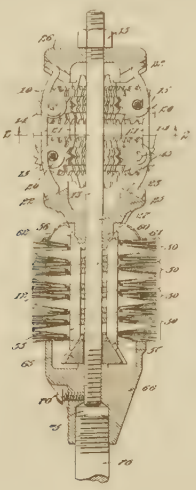


1. A portable scraping machine comprising a carriage, a scraping roll operatively mounted thereon and having a multiplicity of flexible scraping fingers each having its working edges turned at an angle to the plane of its body portion for yieldably engaging the surface to be operated upon with a scooping action, and a motor on said scraper for driving said roll.

1,415,950. FLUE CLEANER. SAMUEL S. POOLE, Boston, Mass. Filed Sept. 29, 1920. Serial No. 413,481. 4 Claims. (Cl. 15—104.13.)

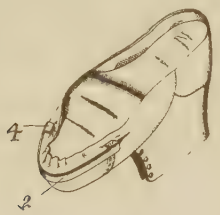
1. A flue cleaner having, in combination, a support and a cutter mounted on the support, said cutter comprising a plurality of longitudinal spring members, a plurality of expansible bearings carried by said spring members, a plurality of cutter wheels mounted on each bearing, two

cam members mounted on the support adapted to engage the ends of the spring members, and means for adjusting



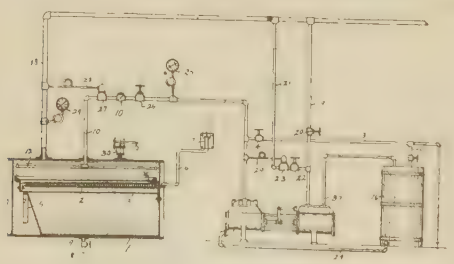
the position of one of the cam members to cause outward movement of the longitudinal spring members to effect expansion of the cutter wheels.

1,415,951. BINDER FOR USE IN LASTING SHOES. CHARLES F. PYM, Lynn, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 25, 1918. Serial No. 259,642. 24 Claims. (Cl. 12—107.)



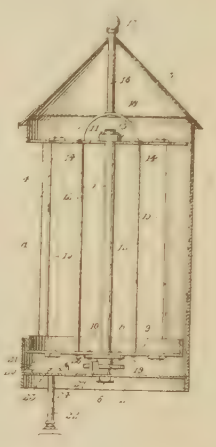
1. A binder for use in retaining an upper in conformity to the contour of the end portion of a last comprising a member formed to extend round the end of the shoe exteriorly of the periphery of the shoe bottom and having a projection thereon constructed to enter a portion of the shoe materials on the bottom of the last to fasten the binder to the shoe.

1,415,952. STEAM GENERATOR. JOE B. ROGILLIO, Houston, Tex. Filed July 26, 1920. Serial No. 399,028. 2 Claims. (Cl. 122—451.)



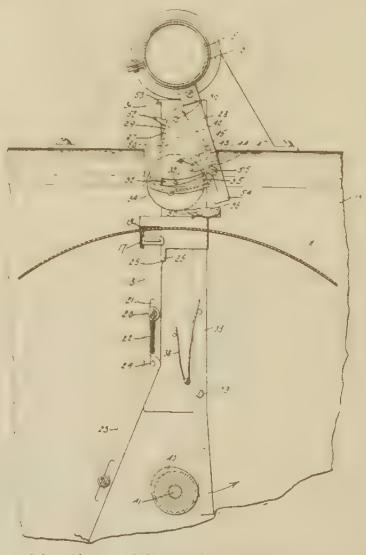
1. A steam generator including a boiler, a pump, a water pressure line connected into the boiler, a cut off valve controlling said pressure line, a water line leading from the pump and terminating in the pressure line between the valve and boiler, a steam line leading from the boiler and formed into branches which unite into a common line which is connected to the pump through which steam is delivered to the pump for operating the same, shut off valves controlling said branch lines, a water cistern, a pipe connecting the cistern with the intake of the pump, an exhaust steam line leading from the exhaust steam chamber of the pump and entering said cistern, a discharge pipe leading from the pressure line into said cistern, a valve controlling said discharge pipe, and governors actuated by steam and water pressure respectively, and automatically controlling said water pressure line and one of said branch steam lines, respectively.

1,415,953. MILK-BOTTLE RECEPTACLE. JOHN SANDOR and JOHN TOTH, Lorain, Ohio. Filed May 18, 1921. Serial No. 470,644. 5 Claims. (Cl. 232—41.)



1. A milk bottle receptacle comprising a casing, a bottle supporting frame rotatably supported therein, said casing having a bottle entrance opening in the side wall thereof, means for rotating the bottle supporting frame, means to prevent retrograde movement thereof, means for locking the bottle supporting frame against rotation, said bottle supporting frame including a base supporting disk and an upper plate, rods connecting the disk and plate and guard rails extending between the disk and plate adapted to be positioned in front of the casing opening when the bottle supporting frame is in a locked position.

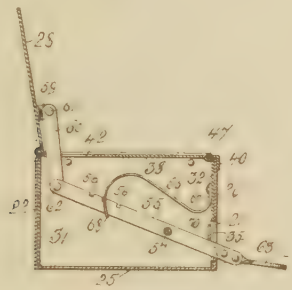
1,415,954. PHONOGRAPH STOP MECHANISM. CHARLES SCHATTE, New York, N. Y. Filed Sept. 13, 1920. Serial No. 409,835. 13 Claims. (Cl. 192—116.)



1. The combination with a phonograph including a rotating table and a swinging tone-arm traversing said table,

of a stop mechanism comprising a spring-actuated brake, means for holding said brake in its inoperative position, a stop pin carried by said tone-arm, a brake releasing mechanism mounted in the path of said pin, and means for rendering said releasing mechanism operative when engaged by said pin as the latter comes to a full stop at the end of the record, said tone-arm moving a predetermined distance across said rotating table before said pin is brought into operative relation to said brake releasing mechanism.

1,415,955. CUSPIDOR. NATHAN SCHLESINGER, Brooklyn, N. Y. Filed June 28, 1920. Serial No. 392,206. 3 Claims. (Cl. 4—39.)

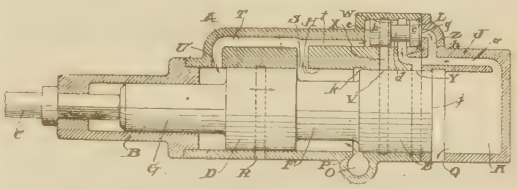


1. In a cuspidor the combination of a casing, a cover hinged to the casing, a well in the casing, a lifting lever having notches in one of its edges pivoted in the casing with one end thereof extending outside of the said casing, a spring with one end thereof secured to a wall of the casing and its other end adapted to lock with any of the notches of the lifting lever and a link connecting the other end of the lifting lever and said cover.

1,415,956. HAMMER. FRED E. SHOURDS, Hetland, S. Dak. Filed May 22, 1920. Serial No. 383,428. 1 Claim. (Cl. 254—26.)

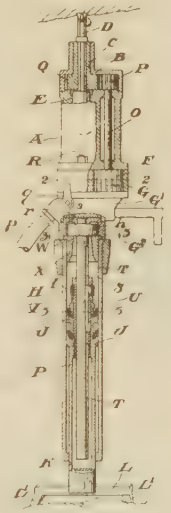
As a new article of manufacture, a hammer consisting of a body, having a forward end and a head, an elongated chisel-forming portion extending from said body, of a raised longitudinally extending reinforcing rib formed centrally upon said chisel-forming portion, one end of said rib merging in the forward end of said body, said chisel-forming portion and the opposite end portion of said rib merging into a broad notched portion, said rib and chisel-forming portion being curved throughout their entire lengths, said rib being comparatively narrow in cross section, whereby the rib will hold the hammer against side slipping when the device is in use and the hammer is being rocked upon said rib.

1,415,957. ROCK DRILL. WILLIAM A. SMITH, Phillipsburg, N. J., assignor to Ingersoll-Rand Company, Jersey City, N. J., a Corporation of New Jersey. Filed Aug. 13, 1920. Serial No. 403,353. 2 Claims. (Cl. 121—18.)



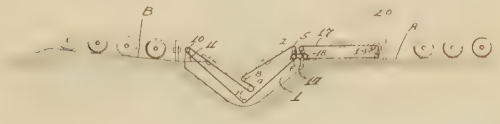
1. In a fluid operated rock drill of the hammer type, the combination of a cylinder and piston having front and rear heads of equal diameter, and a connecting neck of reduced diameter, means for constantly supplying fluid under pressure to the cylinder between the said two piston heads, a supply port controlled solely by the front piston head and communicating by means of a supply passage with an admission port at the front end of the cylinder for supplying motive fluid directly to the forward end of the cylinder in front of the front piston head, a forward admission port and another admission port rearward of the said forward admission port for supplying motive fluid to the rearward end of the cylinder behind the rear piston head, and a fluid actuated valve for controlling communication between forward and rearward admission passages leading to said forward and rearward admission ports.

1,415,958. AUTOMATIC AIR-FEED CONTROL FOR ROCK DRILLS. WILLIAM A. SMITH, Phillipsburg, N. J., assignor to Ingersoll-Rand Company, Jersey City, N. J., a Corporation of New Jersey. Filed Feb. 25, 1921. Serial No. 447,757. 4 Claims. (Cl. 121—5.)



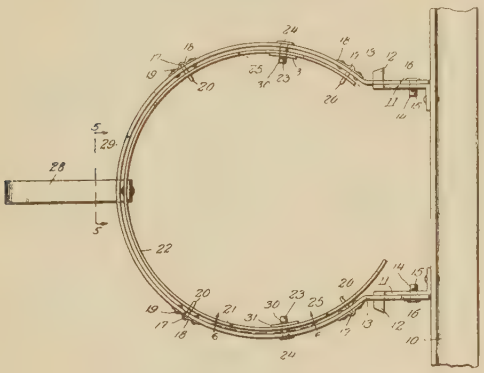
1. In a rock drill of the hammer type, the combination with the drill cylinder, of means for rotating the drill steel, a feeding element for feeding the machine forward, comprising a stationary non-rotatable member, a rotatable and longitudinally movable member connected to the drill cylinder, means for limiting the rotary movement of said longitudinally movable member, and means actuated by said rotary movement for automatically controlling said fluid pressure feeding element in accordance with the resistance to rotation.

1,415,959. DIPPING MACHINE. THOMAS STARK, Chicago, Ill. Filed Oct. 18, 1920. Serial No. 417,601. 3 Claims. (Cl. 91—46.)



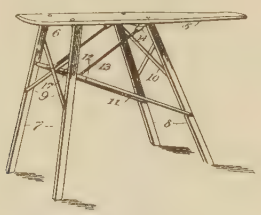
1. In a device of the class described, a paint pit, and means for dipping articles therein comprising a dipping conveyer member circulating in said pit, and so arranged as to provide a gap over which the articles must pass during the dipping operation.

1,415,960. BAG HOLDER. JOHN STURROCK, Chicago, Ill., assignor to International Harvester Company, a Corporation of New Jersey. Filed Mar. 6, 1919. Serial No. 281,050. 8 Claims. (Cl. 83—26.)



1. In a bag holder, a frame, a ring positioned within said frame and concentrically movable with respect to said frame, bag piercing means carried thereby, and means fixed to said frame and extending through said ring for guiding said ring in its movement in actuating said piercing means to operative and inoperative position.

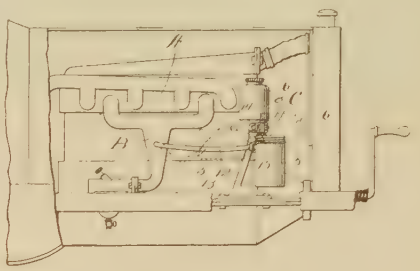
1,415,961. IRONING BOARD. AUGUST SWANSON, Cedar Rapids, Iowa. Filed Sept. 2, 1921. Serial No. 502,058. 2 Claims. (Cl. 68—10.)



2. A locking brace for ironing-tables, comprising a cross-rod pierced for brace-rods, headed brace-rods slidable therethrough, a tube revoluble on the cross-rod, provided with outlet holes for the heads of the brace-rods, and slots in the opposite side of said tube, and a spring adapted to turn the tube to locking position.

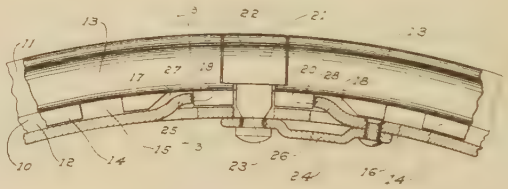
1,415,962. ENGINE STARTER. BOONE U. TAYLOR, Nashville, Tenn., assignor of one-half to James H. Campbell, Charles A. Nelson, Henry C. Moore, Jr., and Al D. McKnight, Murfreesboro, Tenn. Filed June 13, 1919. Serial No. 304,050. 8 Claims. (Cl. 123—180.)

1. The combination with an internal combustion engine including the intake manifold thereof, of a gas generator mounted on the frame of the engine, said gas generator comprising a water container, a carbide container rigidly connected to and in communication with said water container, means for delivering a charge of carbide to said



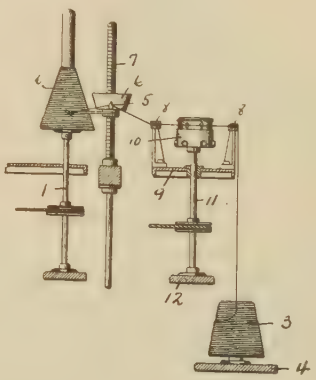
water container, said charge delivery being effected by a reversed turning movement of said carbide and water containers, and means for conveying the gas generated in said water container to the manifold of the engine.

1,415,963. VEHICLE WHEEL RIM. JOSEPH C. THEBERATH, Cleveland, Ohio, assignor to The Standard Parts Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 9, 1919. Serial No. 288,803. 5 Claims. (Cl. 152—21.)



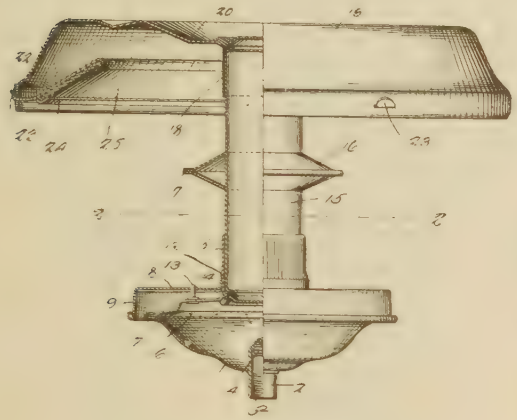
1. The combination with a wheel rim of a split side ring removably mounted on said rim, and means for locking said ring to said rim, said ring having opposed abutments, and said rim having integral lugs stamped-up therefrom, the juxtaposed edges of which are severed from the rim to form shoulders which engage said abutments to hold said ring against circumferential displacement.

1,415,964. WINDING AND DYEING MACHINE. EUGENE A. THOMPSON, Syracuse, N. Y. Filed Jan. 9, 1919. Serial No. 270,310. 5 Claims. (Cl. 8—19.)



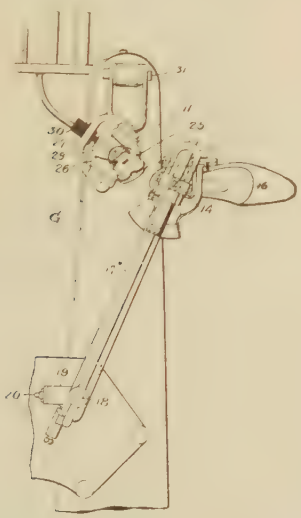
1. In a dyeing machine, a rotary element, a wick projecting from the surface of said element, means for supplying dye to the wick, means for moving a thread across the periphery of said element in contact with said wick, and means for rapidly and continuously rotating the element during the entire period that the thread is in contact with the wick.

1,415,965. BURNER. HERMAN WATERMAN, New York, N. Y. Filed Nov. 22, 1920. Serial No. 425,873. 3 Claims. (Cl. 126—248.)



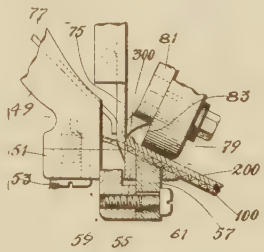
1. In a burner the combination with a body having an annular series of outlets for fuel, of a top or cover above the body, a telescopic connection between the middle portions of the body and cover, and a reflecting ring detachably mounted within the cover and spaced therefrom.

1,415,966. EDGE-TRIMMING MACHINE. HORACE D. WEBB, Rochester, N. Y., assignor to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 24, 1919. Serial No. 292,336. 30 Claims. (Cl. 12—88.)



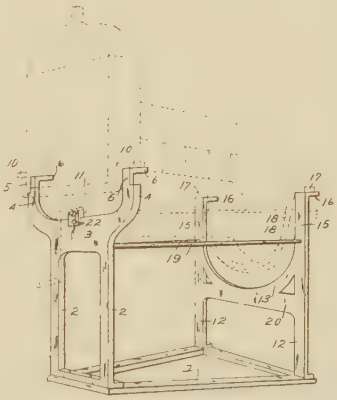
1. In a machine for trimming the edge of a sole attached to a last, a trimming cutter arranged to cut along lines substantially parallel to the plane of the sole, and guiding means relatively to which the last is movable, said means being arranged to maintain contact with the side of the last at two separate points simultaneously to guide the work relatively to the cutter so as to vary the depth of cut according to the variant curvature of the last.

1,415,967. LINING-TRIMMING MACHINE. MELBOURNE W. WHITE, Lynn, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 1, 1919, Serial No. 314,698. Renewed Aug. 19, 1921. Serial No. 493,700. 23 Claims. (Cl. 12—51.)



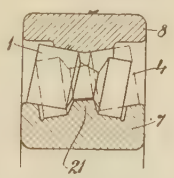
1. A machine for trimming the lining which projects from the top of a shoe, having in combination, a support for the upper edge of the shoe, means for feeding the upper edge over the support, and means for severing the lining close to said edge.

1,415,968. REPAIR STAND. LESLIE A. WILSON, Berlin, Wis. Filed Jan. 2, 1919. Serial No. 269,240. 4 Claims. (Cl. 29—89.)



1. A repair stand for garage work, comprising a skeleton frame having upwardly extending supporting members at the front and rear of said frame, yokes integral with said supporting members and having upwardly projecting arms provided with rests for the hanger flanges of an engine body.

1,415,969. ROLLER BEARING. SVEN GUSTAF WINGQUIST, Gottenborg, Sweden, assignor to Aktiebolaget Svenska Kullagerfabriken, Gottenborg, Sweden, a Corporation of Sweden. Filed Sept. 9, 1919. Serial No. 322,753. 11 Claims. (Cl. 64—39.)

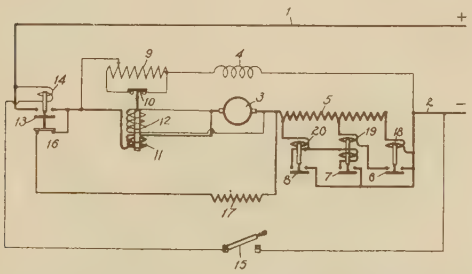


1. In a roller bearing an inner and an outer ring, and a plurality of rows of rollers interposed between said rings, there being load carrying engagement between each roller and at least one of the rings at a plurality of spaced apart contact areas, at least one of the rings having a plurality of load carrying races for rollers of each row, the races for one row alternating in axial direction with the races for the other row.

1,415,970. ROTATING KILN FOR BURNING CEMENT AND THE LIKE. NILS WINQVIST, Tollarp, Sweden. Filed Oct. 30, 1918. Serial No. 260,369. 2 Claims. (Cl. 222—7.)

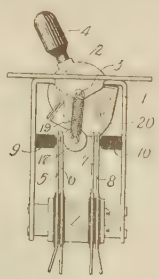
1. In combination, a rotary kiln having a preparatory heating zone, and flat projections extending from the wall of said zone and leaving a free central passage in the kiln, said projections being spaced longitudinally and circumferentially of the kiln and having large surfaces parallel to the direction of rotation and presenting thin edges and open spaces to the material in the direction of rotation thereby to prevent lifting of the material by said projections during rotation.

1,415,971. MOTOR-CONTROL SYSTEM. JOHN H. ALBRECHT, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 5, 1916. Serial No. 89,098. 5 Claims. (Cl. 172—288.)



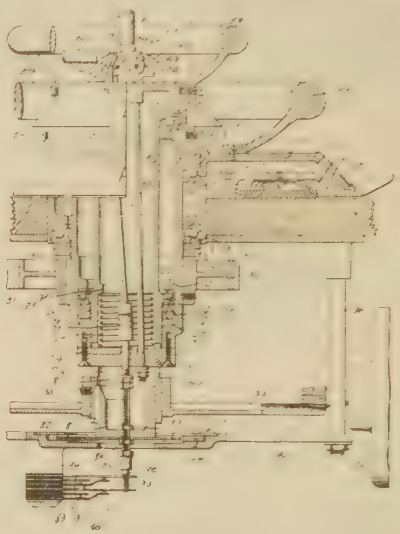
4. In a motor-control system, the combination with an electric motor, means for accelerating said motor, and means for dynamically braking said motor, of a relay having actuating means controlled in accordance with the values of the current and the voltage in the circuit of said motor for decreasing the field excitation of said motor when the speed of the latter reaches a predetermined rate in accelerating and for increasing the field excitation of said motor when its speed has fallen to a predetermined rate during dynamic braking.

1,415,972. ELECTRICAL SWITCHING DEVICE. ROY M. ALLEN, Bloomfield, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Aug. 13, 1920. Serial No. 403,210. 6 Claims. (Cl. 179—176.)



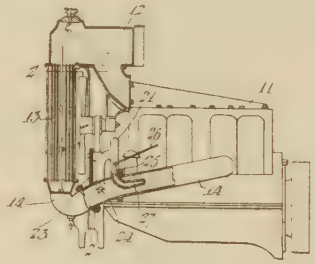
6. In a switching device, a plurality of switch members, a rotatable cam, and a member resiliently mounted on said cam and adapted reciprocate on the edge thereof whereby upon rotation of said cam said member is caused to alternately contact the said switch members.

1,415,973. COMPENSATOR. ROY M. ALLEN, Bloomfield, and PAUL NEILL, East Orange, N. J., assignors to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Jan. 8, 1921. Serial No. 436,011. 23 Claims. (Cl. 181—05.)



23. In an arrangement for measuring and indicating bearing angles, means for directly measuring the trigonometric function of an angle, and means for traslating said measurement into a direct indication of the angle.

1,415,974. ACCELERATOR FOR WATER-COOLED MACHINES. SCOTT E. ALLEN, Los Angeles, Calif. Filed Nov. 1, 1920. Serial No. 421,130. 6 Claims. (Cl. 123—175.)

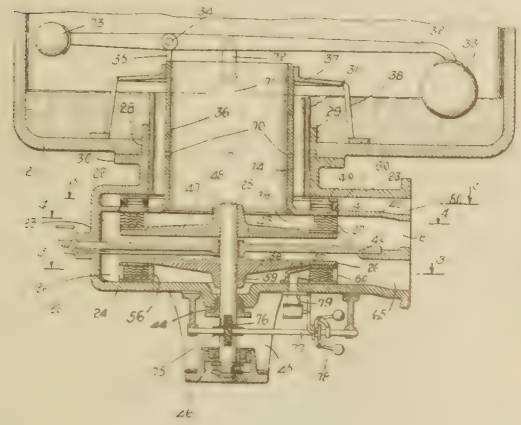


6. The combination with a motor and its water jacket, a radiator with a pipe connecting said jacket and radiator; of an impelling device adapted to be operated by said motor, a watertight casing encompassing said device and having pipes tapping said first mentioned pipe, one of said last mentioned pipes being adapted to direct water into said casing, and the other of said last mentioned pipes being arranged to direct water from the casing into the first mentioned pipe and in the direction of flow of water therein.

1,415,975. CONDENSER PUMP. EMIL ANDERSON, Brooklyn, N. Y., assignor to The Universal Turbine Company, Newark, N. J., a Corporation of New Jersey. Filed Feb. 9, 1915. Serial No. 7,096. Renewed Oct. 6, 1921. Serial No. 505,924. 12 Claims. (Cl. 103—79.)

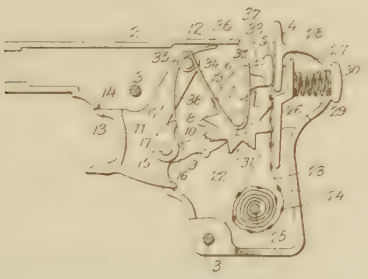
2. A condenser pump comprising a rotary pumping element having a water section and an independent air

section, a plate separating said section and means including said plate for providing an independent annular



water passage from the condenser well to and through the water section of the pump.

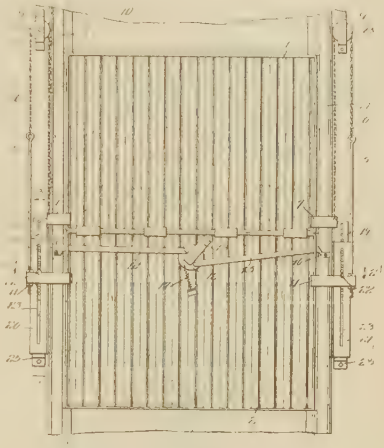
1,415,976. FIREARM. EUGENE B. ANDES, Lancaster, Pa. Filed Mar. 6, 1922. Serial No. 541,348. 4 Claims. (Cl. 42—57.)



3. In a pistol, an anvil, a pivoted hammer having an impact-head, a fulminate-cap tape adapted to move lengthwise between said anvil and said impact-head, a trigger, a sear carried by said trigger and releasably engaging said hammer, a toothed tape-engaging and feeding wheel actuated by the hammer upon movement of the latter away from the anvil, and spring means for moving said hammer toward the anvil.

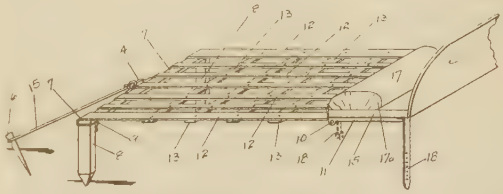
1,415,977. FIRE DOOR, SAFETY GATE, AND THE LIKE. HERMAN BACKMAN, Chicago, Ill., assignor to Variety Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed June 20, 1919. Serial No. 305,569. 2 Claims. (Cl. 189—45.)

1. In combination, a closure comprising upper and lower sections movable vertically away from each other, counterweight means tending tomove said vertically movable sections toward one another, counterweight means adapted to oppose the action of said first counterweight means and means adjustably carried by said second counterweight means for bringing said means into action to oppose the action of said first counterweight means, the adjustability of the means for bringing said counterweight means into action providing adjustability of the point at which the checking force of said means is brought into



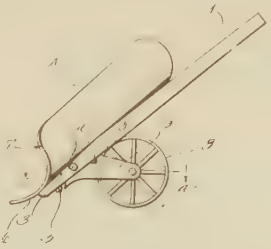
action whereby the speed at which the door sections are brought together may be varied.

1,415,978. BED. CHARLES L. BATCHELOR, Portland, Oreg. Filed Oct. 25, 1921. Serial No. 510,218. 2 Claims. (Cl. 5—72.)



1. A folding bed supported at one end thereof upon the running board of an automobile and adapted to be folded there-beneath, in combination with a cover attached to said bed and adapted to encase said bed when so folded and to form a pillow casing for said bed when the same is in use.

1,415,979. SNOWPLOW. LOUISE BEDFORD, Mount Pleasant, Iowa. Filed Jan. 20, 1921. Serial No. 438,680. 3 Claims. (Cl. 37—7.)

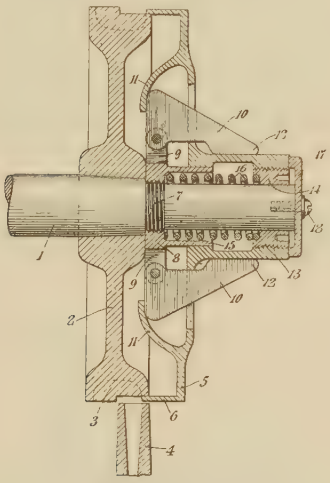


1. A snow plow comprising a pair of inclined downwardly converging handles, an inclined plate secured upon the upper edges of said handle and having its upper edge turned forwardly and disposed obliquely with respect to said handle, the lower edge of said plate being directed forwardly to provide a walk scraper, a wheel between said handles behind said plate and adapted to travel on the cleaned walk, and a bracket secured to said handles and carrying said wheel.

1,415,980. GLASS COMPOSITION. HARRY T. BELLAMY, Oak Park, and BURTON T. SWEELY, Cicero, Ill., assignors to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Original application filed Nov. 16, 1918, Serial No. 262,852. Divided and this application filed Mar. 20, 1920. Serial No. 367,395. 3 Claims. (Cl. 106—36.1.)

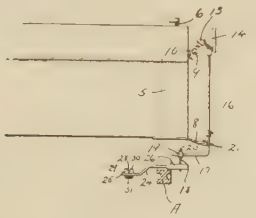
1. A binder for higher resistance compositions, comprising a non-electrolytic glass composed of silicates and borates of calcium and barium.

1,415,981. GOVERNOR. WILLIAM F. BOUCHÉ, Lancaster, N. Y., assignor to Gould Coupler Company, a Corporation of New York. Filed Feb. 28, 1920. Serial No. 362,153. 5 Claims. (Cl. 253—52.)



1. In a turbine the combination of a turbine runner and its shaft means for applying motive fluid to said runner to operate the same, an annular member movable relatively to the runner longitudinally of the shaft over the operative face of the runner to control the effect of the motive fluid thereon, pivotally mounted centrifugal means rotating with the runner and acting to move said member relatively over the operative face of the runner, said member having a frame work extending inwardly from its periphery and forming a part surrounding the axis of said shaft and between said axis and the pivotal points of said centrifugal means and a spring acting on said part to oppose the action of said centrifugal means.

1,415,982. DIRIGIBLE SPOTLIGHT. WILLIAM W. BOULINEAU, Cedartown, Ga. Filed July 6, 1921. Serial No. 482,660. 6 Claims. (Cl. 240—62.)

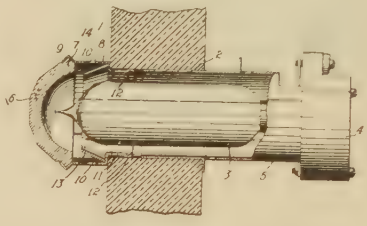


1. A dirigible spotlight for automobiles comprising a vertical shaft journaled at the forward intermediate portion of an automobile, a spotlight on the upper end of the shaft, the lower end of the shaft being extended beneath the automobile, an adjustable arm carried by the last mentioned end of the shaft, an an actuating arm connected to the steering means of the automobile, a connecting member rotatably mounted on the actuating arm, said connecting member being also rotatable on the adjustable arm.

1,415,983. METHOD OF TREATING NONAQUEOUS ELECTROLYTES. PORTER H. BRACE, Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 17, 1920. Serial No. 404,105. 12 Claims. (Cl. 204—19.)

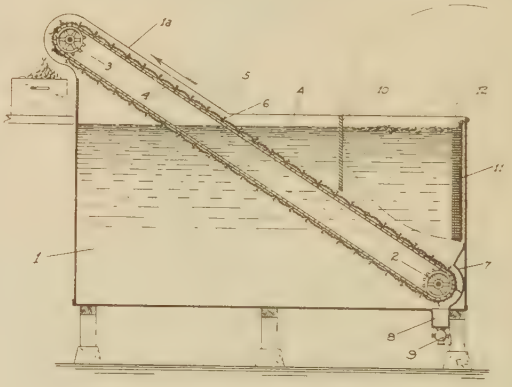
1. A method of treating a nonaqueous electrolyte which consists in adding to said electrolyte a material capable of causing dissolved or occluded gases to be released.

1,415,984. SWITCHBOARD LAMP. JAMES M. BROWN, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed July 15, 1920. Serial No. 396,536. 4 Claims. (Cl. 240—1.)



1. In a switchboard signal device, the combination with a switchboard panel having a recess and a lamp in the recess, of a lens of substantially bowl-shape disposed with its open-side over said recess, a tubular member supporting the lens on the panel and having a ventilating passage communicating with the outer air adjacent to the panel, and a frusto-conical member disposed in the tubular member adjacent to the panel and converging toward the lens to prevent the direct emission of light rays through said passage.

1,415,985. METHOD OF SEPARATING FRUIT FROM LEAVES. JERRY BUCKLEY, Mills, Calif. Filed Oct. 3, 1921. Serial No. 505,011. 7 Claims. (Cl. 130—32.)

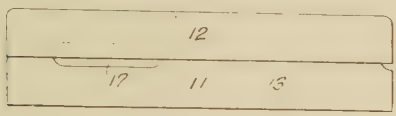


1. A method of separating fruit from floatable foreign matter consisting of submerging the fruit in a liquid, whereby the floatable matter will remain on the surface of the liquid and providing means for continuously removing the fruit from under the liquid for preventing the floating matter from again coming in contact with the fruit as the latter is withdrawn from the liquid, and for removing an accumulation of such floating matter at will and with a single operation.

1,415,986. CONTAINER. CHRISTOPHER DOVE BURTON, London, England. Filed Apr. 19, 1921. Serial No. 462,602. 2 Claims. (Cl. 220—43.)

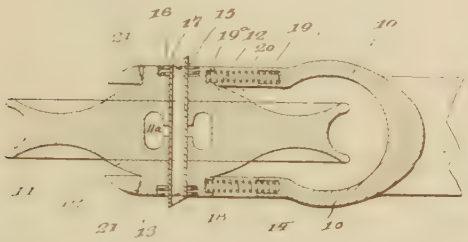
1. A container comprising a body presenting spaced inner and outer circumferential walls, the outer wall

having one or more openings extending therethrough and a cover presenting a flange adapted to telescope the said



outer wall and to partly overlie the opening or openings therein, whereby the edge of the flange is exposed to facilitate removal of the cover.

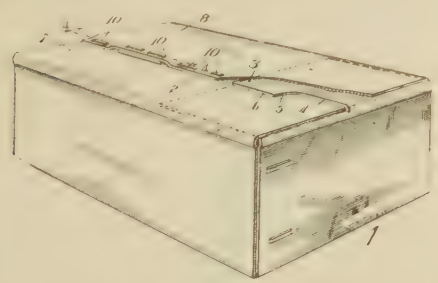
1,415,987. TROLLEY-WHEEL MOUNT. GEORGE O. BURWELL, Detroit, Mich., and CHARLES M. KURTZ, Bellevue, Pa. Filed Sept. 29, 1921. Serial No. 504,044. 2 Claims. (Cl. 191—63.4.)



1. The combination of a support having branches, a current collector between the branches, contact shoes engaging the sides of the collector and having outstanding bearing members carried by the aforesaid branches, and recessed at their outer ends, an axle supporting the collector, said axle being carried by the bearing members and extending into the end recesses thereof, springs engageable with the bearing members for maintaining a contact between the shoes and the collector, said springs seating in the aforesaid recesses, and abutments on the axles against which the springs bear at one end.

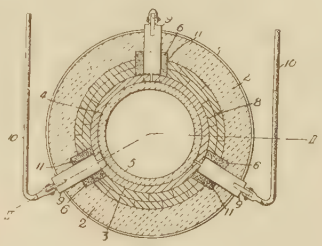
2. The combination with a current collector, of an axle on which said collector is mounted, said axle being hollow to provide an air-passageway extending from one end to the other, the ends of said axle being beveled in opposite directions.

1,415,988. CARTON. GEORGE F. CALLERY, Oak Park, and RUDOLPH WM. LOTZ, Chicago, Ill. Filed July 29, 1918. Serial No. 247,109. 6 Claims. (Cl. 229—44.)



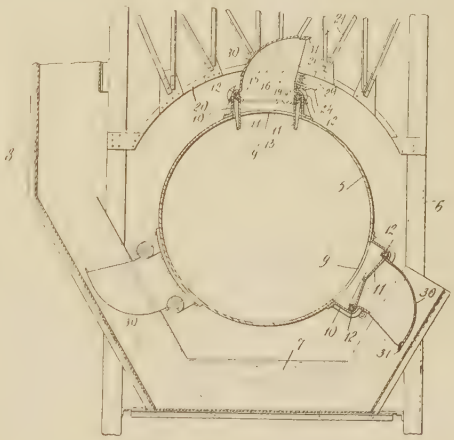
2. A carton having four closure flaps including end-flaps each comprising two parts one of which is of greater width at its free end than at its base and the other of which is of less width at its free end than at its base and side flaps adapted to overlap each other, one of the latter adapted to be partially overlapped by the wider portions of the end-flaps and said last-named portions of said end-flaps completely overlapped by the other side-flap, whereby fastening means passed through overlapping end portions of the side flaps will pass through portions of the end flaps and said flaps when closed presenting a free passage for an anvil member for assisting in the clinching of the fastening means.

1,415,989. THREE-PHASE CRUCIBLE FURNACE. CRANSTON H. CARPENTER, Irwin, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed May 22, 1920. Serial No. 383,378. 10 Claims. (Cl. 204—64.)



1. In an electric furnace, the combination with a container, of a resistor surrounding said container, a plurality of wells symmetrically disposed around said container, granular electrical-conducting material contained in said wells and operatively engaging said resistor, and terminal electrodes in said wells adapted to connect said resistor to a source of electromotive force.

1,415,990. ROTARY KILN. ALEXANDER B. CARSTENS, Monterey, Mexico, assignor to The American Metal Company, Limited, a Corporation of New York. Filed Dec. 8, 1919. Serial No. 343,438. 10 Claims. (Cl. 222—7.)

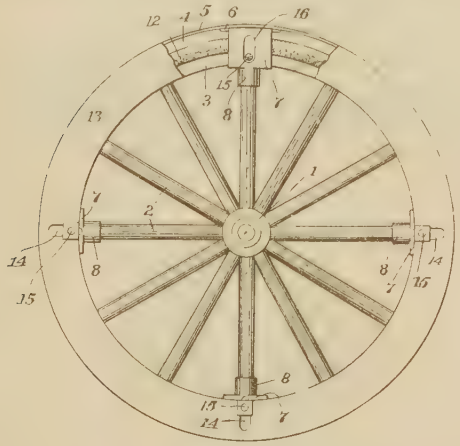


1. A rotary kiln having openings intermediate the ends thereof, means for normally closing said openings during substantially a complete revolution of the kiln to prevent the escape of gases therefrom, and means cooperating with said first-named means to cause a momentary opening of the same and thereby permit material to pass through said openings into the kiln.

1,415,991. VEHICLE WHEEL. HENRY F. CLEEVE, Jamaica, N. Y., assignor of one-third to William J. Billings, Jamaica, N. Y. Filed June 16, 1920. Serial No. 389,323. 11 Claims. (Cl. 152—35.)

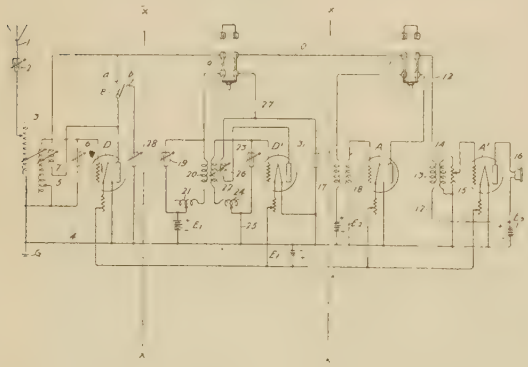
1. In a vehicle wheel, the combination with inner and outer concentric rims, of a pneumatic tube interposed

between them, and clamps surrounding said rims and tube and having collars embracing and adapted to slide on



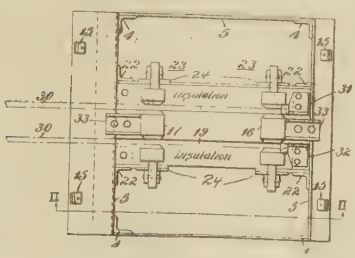
certain of the spokes of the wheel, for the purpose specified.

1,415,992. RECEIVING STATION. LEWIS M. CLEMENT, Newark, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Mar. 22, 1918. Serial No. 223,918. 18 Claims. (Cl. 250—20.)



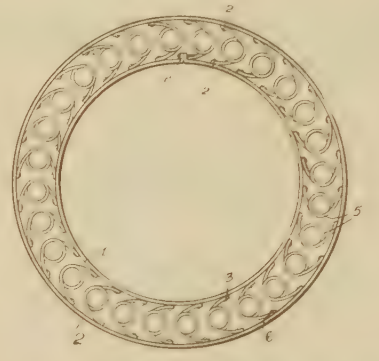
1. In a signal receiving station, a detector, a receiving instrument, associated means whereby simple wave trains are applied by said detector to said instrument, and means including a portion of said first named means whereby plurally detected waves may be applied to said instrument.

1,415,993. ELECTRIC HEATING DEVICE. ORA A. COLBY, Irwin, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 30, 1920. Serial No. 406,770. 4 Claims. (Cl. 219—13.)



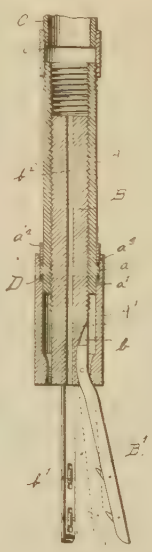
1. In an electric heating device, the combination comprising a core member, two primary windings associated with said core member, an open-circuit secondary winding located between said primary windings, and resilient means for holding a plurality of bars in position to close said secondary winding.

1,415,994. VEHICLE TIRE. GEORGE M. COLLINS, Sprague, Wash. Filed Sept. 8, 1919. Serial No. 322,288. 1 Claim. (Cl. 152—8.)



A tire including an inner ring, an outer ring, an annular series of springs interposed between the rings and out of contact with each other, each spring including a single length of spring metal folded to form an elongated loop, parallel members extending from the loop and each merging into a coil, the two coils being oppositely pitched, each coil terminating in an arm having a terminal eye, said arms and the elongated loop being extended along diverging lines in the same general direction from the coils, and means for securing the eyes of the spring to the outer ring and the free end of the loop of the spring to the inner ring.

1,415,995. FISHING TOOL. HORACE C. COOPER, Ardmore, Okla., assignor of one-half to David N. Stewart, Ardmore, Okla. Filed Apr. 15, 1921. Serial No. 461,513. 7 Claims. (Cl. 294—100.)



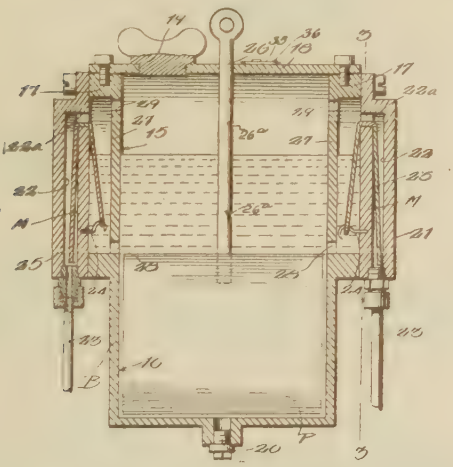
1. A fishing tool comprising upper and lower tubular members, said upper member being interiorly screw threaded and having said lower member swiveled thereto, an exteriorly threaded shank screwed into said upper member, said shank having a plurality of recesses in its lower end, and grappling fingers pivoted in said recesses; said lower member having an interior annular convex

surface adjacent the pivoted end portions of said fingers, and the latter having concave surfaces opposed to said convex surface of said lower member, whereby said fingers are caused to advance and be spread apart when said upper member is rotated in one direction and brought together and retracted within said lower member so as to firmly grip a tool or other article therebetween when said upper member is rotated in the opposite direction.

1,415,996. WATER MOTOR. THOMAS CRISP and THOMAS FRANCIS MARION CRISP, Junction, Tex., assignors of one-third to Jack Turner, Junction, Tex. Filed Sept. 13, 1920. Serial No. 409,894. 1 Claim. (Cl. 170—125.)

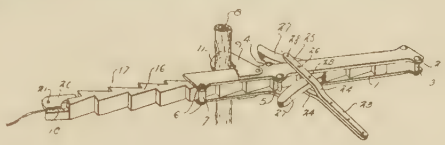
In a water motor, a rotatably mounted shaft, diametrically opposed spirally arranged series of scoop-shaped vanes secured to said shaft, each vane of a series being spaced from the adjacent vanes of the same series and being disposed at an angle to the spiral path of the series, the surfaces of adjacent vanes being approximately parallel and the water being received upon the concave sides of the vanes, substantially as described.

1,415,997. LUBRICATOR. CLARENCE CULLEN CRISPEN, Harrisburg, Pa. Filed Feb. 26, 1921. Serial No. 448,064. 6 Claims. (Cl. 184—64.)



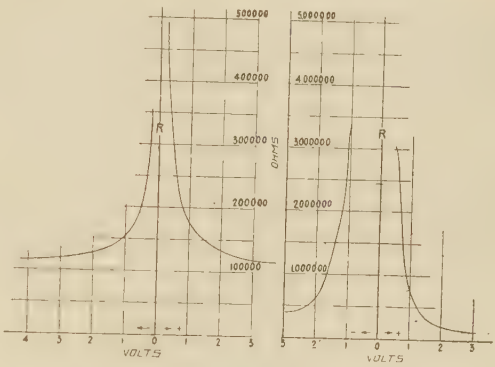
5. A lubricator comprising, an oil container including an upper chamber and a lower chamber, side members secured to the container at the sides of the upper chamber, ducts formed on the side members and communicating with the container at a point above the level of oil in the container, distributing pipes communicating with the lower ends of said ducts, wicks extending into the upper chamber and into said ducts for feeding oil from the container to said pipes, and a plunger movable in the container to cause the oil to contact with the wicks when in the lower chamber and to displace the oil out of contact with the wicks when in the upper chamber.

1,415,998. WIRE STRETCHER. PATRICK CULLERTON, Mansfield, Wash. Filed Aug. 31, 1920. Serial No. 407,132. 3 Claims. (Cl. 254—72.)



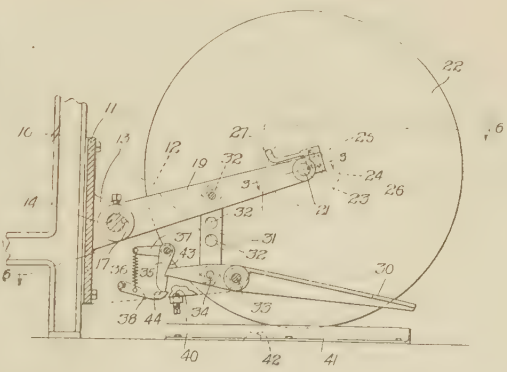
1. In a wire stretcher, the combination with a frame comprising a pair of elongated parallel spaced plates, ears provided upon said plates and rivets passing through said ears so as to hold said plate in spaced relation to each other, a bar slidably mounted between said plate, means for causing the progression of the bar in the frame, means for attaching said bar to a wire, and means for attaching the frame to a post.

1,415,999. STATIC REDUCER FOR WIRELESS SIGNALS. AUSTEN M. CURTIS, Brooklyn, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Nov. 1, 1916. Serial No. 128,881. 10 Claims. (Cl. 250—31.)



1. A detector for electromagnetic waves consisting of a single rectifying device which has a non-uniform conductive path whose characteristic curve is asymmetrical for the lower voltages of the order used to give signal indications in electromagnetic wave receiving stations and symmetrical for all voltages of materially higher orders.

1,416,000. ATTACHMENT FOR REELING MACHINES. CHARLES J. DE COSTER, Chicago, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Sept. 3, 1920. Serial No. 407,934. 4 Claims. (Cl. 242—58.)



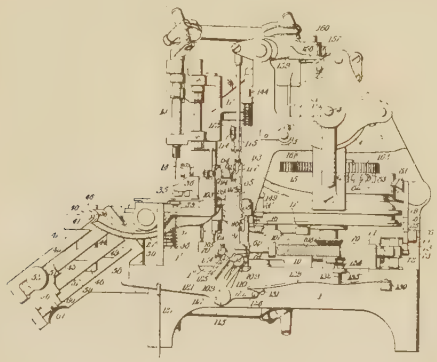
2. An attachment for reeling machines, comprising pivotal reel lifting arms adapted to hold a reel, an actuating

lever therefor, connecting means between said arms and said lever adapted to be adjusted therebetween whereby different diameter reels may be handled, means cooperating with said lever to automatically hold or release said lever upon actuation thereof, adjustable means for holding said reel lifting arms the required distance from a reel receiving position in their movement downward, and supporting means for the lifting mechanism.

1,416,001. THUMB AND FINGER PROTECTOR. ALFRED E. DETWILER, Chicago, Ill. Filed Aug. 19, 1921. Serial No. 493,530. 9 Claims. (Cl. 2—104.)

1. A thumb and finger protecting device, comprising a hollow thumb receptacle of rigid material, and a hollow finger receptacle of similar material, each of said receptacles being open at one end and provided with an open end covering of flexible material, there being thumb and finger insertion openings in said covering, and a flexible web connecting the open ends of the receptacles.

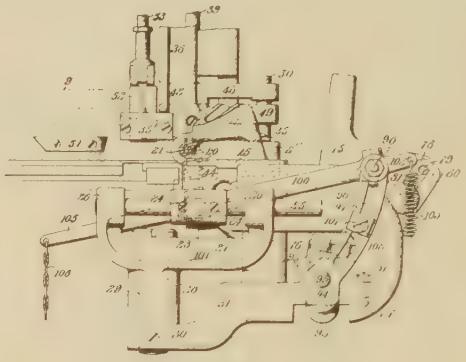
1,416,002. SEWING MACHINE. ALBERT H. DE VOE, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Dec. 5, 1916. Serial No. 135,154. 36 Claims. (Cl. 112—65.)



1. In a sewing machine, in combination, a driven element, a driving element with means acting through the same for normally imparting to the driven element uniform movements, and means for selectively varying the amplitude of said movements either to a predetermined limit or beyond said limit, said means including a manually shiftable element and coacting devices for arresting movement of said element at a predetermined position under a normal impulse, one of said devices including means which shifts under an abnormal impulse to permit further movement of said manually shiftable element.

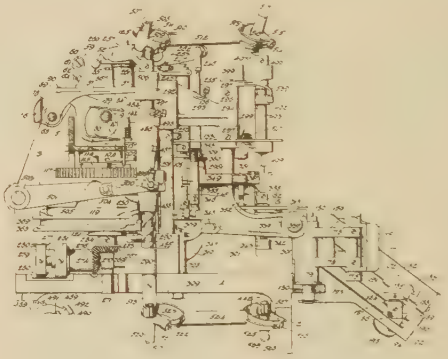
1,416,003. WORK-SHIFTING MECHANISM FOR SEWING MACHINES. ALBERT H. DE VOE, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Feb. 21, 1917. Serial No. 150,003. 25 Claims. (Cl. 112—65.)

1. In a sewing machine, in combination, stitch-forming and feeding mechanisms for producing within a stitching cycle stitching upon the work in a defined pattern, and means acting upon the work and adapted to shift beyond the normal range of action of the stitch-forming mechanism that portion of the work last within such range in the stitching of said pattern, and comprising a work-



gripping device, and shifting means for moving it in a predetermined path and provided with adjusting means whereby said gripping device may be caused to travel either in a rectilinear or a curvilinear path.

1,416,004. BUTTONHOLE-SEWING MACHINE. ALBERT H. DE VOE, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Dec. 31, 1915, Serial No. 69,644. Renewed Jan. 7, 1921. Serial No. 435,761. 85 Claims. (Cl. 112—65.)

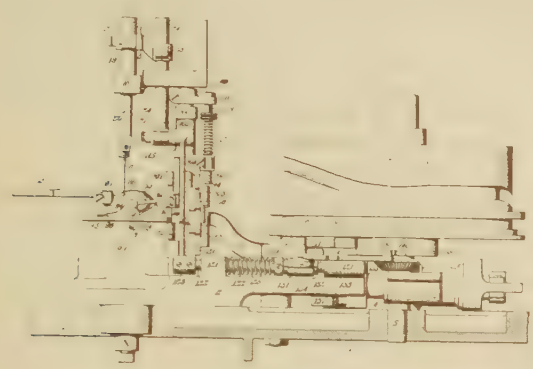


1. In a buttonhole sewing machine, in combination, stitch-forming mechanism, buttonhole cutting mechanism, and means including a common element which is normally subjected in each period of operation of the machine to successive manual and automatic control for setting said mechanisms successively in operation.

1,416,005. SEWING MACHINE. ALBERT H. DE VOE, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed June 27, 1917, Serial No. 177,206. Renewed Jan. 4, 1922. Serial No. 527,055. 45 Claims. (Cl. 112—252.)

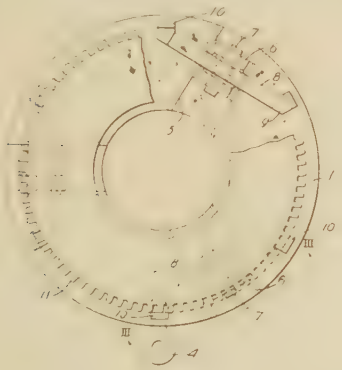
31. In a sewing machine, in combination, a work-support, stitch-forming mechanism including a reciprocating needle and cooperating loop-taking means sustained respectively at different sides of the work-support, needle-actuating means including a rotary crank and a pitman connected therewith and provided with a lateral shoulder, a vibratory tappet-arm movable into and out of operative relation with said shoulder, a thread-cutting device, an endwise movable rock-shaft sustaining said tappet-arm and provided with a thrust-sustaining shoulder, a shifting

device normally opposed to and engaging said thrust-sustaining shoulder and adapted to be disengaged therefrom



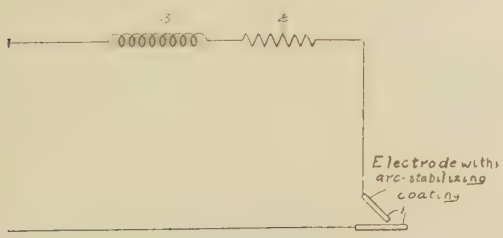
in the rocking of said shaft, and actuating means for said shifting device acting with less frequency than the operative movements of said crank and pitman.

1,416,006. SUPPORTING APPARATUS FOR USE IN TEMPERING FURNACES. GEORGE M. EATON, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 26, 1919. Serial No. 319,858. 17 Claims. (Cl. 263—6.)



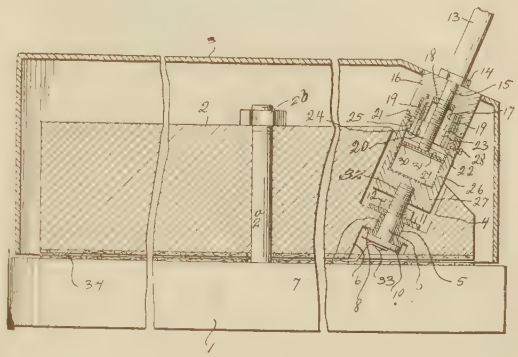
1. A supporting apparatus for use in tempering furnaces comprising a base and three spaced supporting means carried thereby.

1,416,007. ELECTRIC-ARC-WELDING SYSTEM. OTTO H. ESCHHOLZ, Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 6, 1919. Serial No. 328,774. 5 Claims. (Cl. 219—15.)



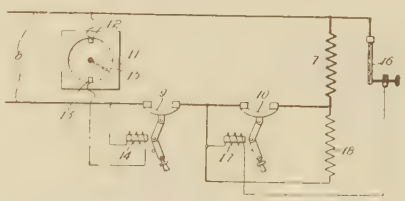
1. An arc welding system comprising a plurality of electrodes, one of which is coated, and a reactance connected in series with one of the electrodes, said system having a power factor of at least 80%.

1,416,008. FUSE FOR ELECTRIC IRONS. WILFRED H. FAYLE and WILLIAM G. CROWLE, Chisholm, Minn. Filed Jan. 3, 1921. Serial No. 434,534. 6 Claims. (Cl. 200—142.)



1. In a fuse construction, opposed fuse sections, one of insulating material, means connecting the two sections, a cord contact rod carried by the insulating section, a container carried within the other section, a fusible member, and means to support the fusible member in the container in contact with the lower end of the cord contact rod.

1,416,009. CONTROL SYSTEM FOR ELECTRIC RANGES. FRANK F. FORSHEE, Flint, Mich., assignor to Westinghouse Electric Products Company, a Corporation of Michigan. Filed Mar. 1, 1920. Serial No. 362,425. 11 Claims. (Cl. 219—20.)

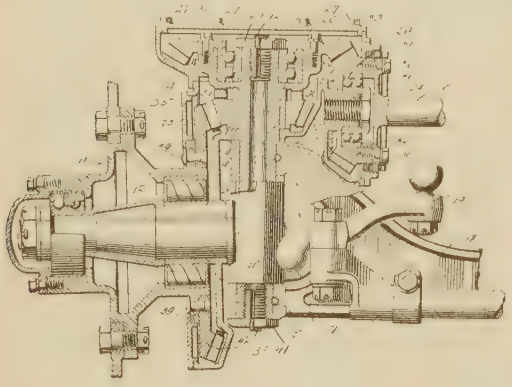


1. In an electrically-heated apparatus, the combination with a main electric heating element, of a circuit-controlling device for said main heating element, chronometrically-controlled means for actuating said circuit-controlling device, an auxiliary electric heating element, and means comprising a thermally-actuated device for permitting the energization of said auxiliary electric heating element in series-circuit relation with said main heating element.

1,416,010. FRONT-WHEEL DRIVE MECHANISM FOR MOTOR VEHICLES. FRANK L. FREEMAN, Omaha, Nebr. Filed Apr. 9, 1920. Serial No. 372,529. 8 Claims. (Cl. 74—101.)

1. A front wheel drive comprising a dead axle having bearings at its outer end, a king pin extended through and above the bearings, a driving axle, a spindle mounted upon the king pin between the bearings, a housing structure having swiveled members supported respectively upon the spindle and king pin, a wheel hub rotatably mounted upon the spindle, a gear loosely mounted upon the upper por-

tion of the king pin within the housing, a gear carried by the driving axle and meshing with the first gear, a gear

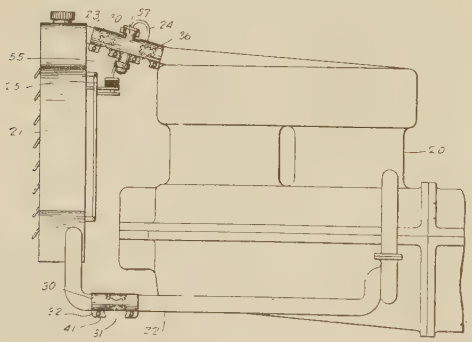


positioned beneath and turning with the first gear, and a gear carried by the wheel hub and meshing with the last gear.

1,416,011. PISTON RING. ALBERT F. FROUSSARD, St. Louis, Mo. Filed May 1, 1919. Serial No. 294,035. 2 Claims. (Cl. 74—109.)

1. A piston ring of substantially rectangular shape in cross section and having a channel in the cylinder bearing face of said ring, said channel having a curved face, and a spring member having a face to correspond with and fit within said channel, and an outer face to normally align with the cylinder engaging face of the ring.

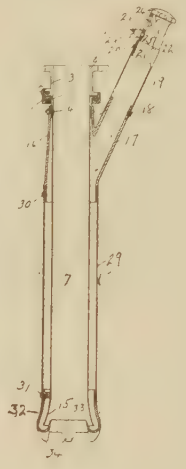
1,416,012. HOSE CLAMP. JOSEPH GENTILE, Brooklyn, N. Y. Filed Nov. 4, 1921. Serial No. 512,943. 7 Claims. (Cl. 24—19.)



1. A hose clamp comprising substantially cylindrical inner and outer members, tabs on the outer member extending from its adjacent edges, tabs integrally formed from the bodies of said inner members opposite their adjacent edges, said inner tabs extending co-incidently between said outer tabs, co-operative detent elements engaging between said inner and outer tabs, and bolts for drawing each group of tabs together whereby the inner and outer elements of said cylindrical members are contracted in diameter.

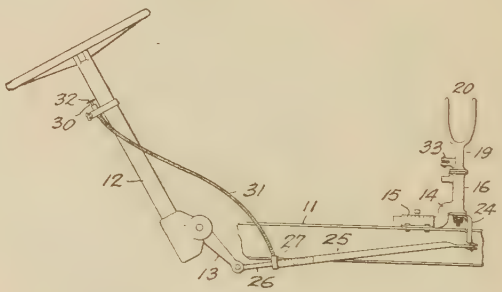
1,416,013. NOZZLE. GEORGE A. GIESELER, Cleveland, Ohio. Filed Feb. 14, 1921. Serial No. 444,924. 2 Claims. (Cl. 302—58.)

1. In a nozzle, an inner tube belled outwardly at its lower end, an outer tube attached to the upper part of the inner tube, a shoe for the outer tube at its lower end and belled outwardly to correspond to the inner tube and having an upwardly extending mouth piece extending within



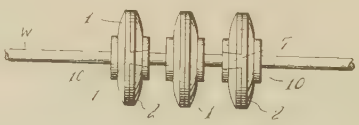
the belled end of the inner tube, a tube extending upwardly and laterally from the upper part of the outer tube, and an air valve on the extending tube.

1,416,014. DIRIGIBLE HEADLIGHT. ARTHUR N. GOODWIN and WILLIAM SUTHERLAND, Montreal, Quebec, Canada. Filed Mar. 3, 1921. Serial No. 449,319. 2 Claims. (Cl. 240—62.)



1. A dirigible headlight mechanism comprising a steering arm, a rotatable lamp support, a hollow member secured to said lamp support and provided with a laterally directed casing closed at its outer end and in direct communication with the bore of the hollow member, a second member slidable in the hollow member and secured at its outer end to the steering arm, said second member being provided with an aperture, a latch slidably mounted in said casing, adapted when projected therefrom, to enter the aperture in said second member, a spring for projecting said latch, confined therebetween and the outer end wall of the casing and an actuating stem for the latch extending outwardly from the casing.

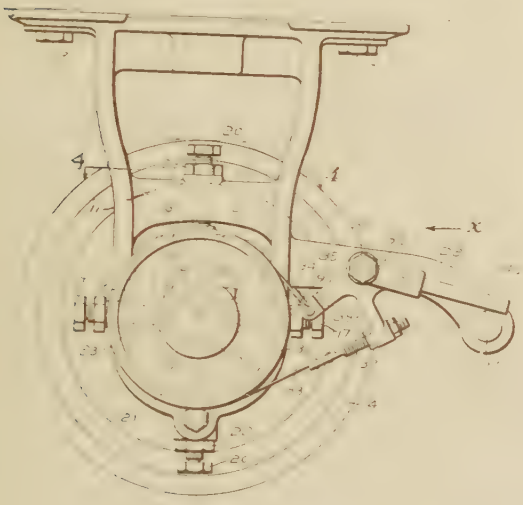
1,416,015. BILLIARD COUNTER. ADAM H. GRISWOLD, Denver, Colo. Filed July 20, 1921. Serial No. 486,100. 2 Claims. (Cl. 235—123.)



1. A device of the character described comprising a body composed of longitudinally divided complemental sec-

tions having oppositely disposed radial slots formed therein, oppositely disposed radial ribs formed on the inner sides of said sections aligning with the inner end of the slots in their respective sections and adapted to be slidably introduced into the radial slots of the opposite sections, the walls of said slots and the sides of said ribs being formed to permit of their sliding introduction but to prevent of relative lateral movement between said sections subsequently to such introduction.

1,416,016. COUNTERSHAFT BRAKE. WILLIAM F. GROENE, Cincinnati, Ohio, assignor to The R. K. Le Blond Machine Tool Company, Cincinnati, Ohio, a Corporation of Ohio. Filed June 10, 1920. Serial No. 387,902. 10 Claims. (Cl. 192—17.)

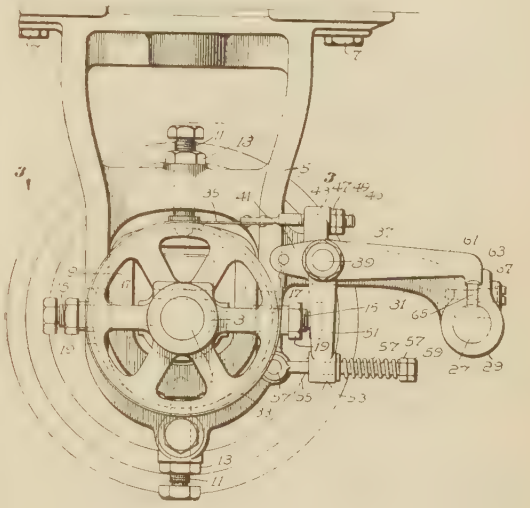


1. In a device of the class described, the combination of a countershaft, brackets for rotatably supporting the countershaft, a brake drum secured to the countershaft, a brake band for said drum, spaced independent pulleys for driving the countershaft, a shifter rod slidably supported to move parallel to the countershaft, means operable by the movement of the shifter rod in one direction to effect driving of the countershaft from one of said pulleys and movable in the opposite direction to effect driving of the countershaft from the other pulley, and means operable by the movement of the shifter rod to an intermediate position for tightening said brake band against the brake drum.

7. In a device of the class described, the combination of a countershaft, brackets for rotatably supporting the countershaft, a brake drum secured to the countershaft, a brake band embracing said drum, two different means for driving the countershaft, a shifter rod supported alongside the countershaft and movable in the direction of its length, means operable upon movement of the shifter rod in one direction to effect driving of the countershaft from one of said driving means and operable upon movement of the shifter rod in the opposite direction to effect driving of the countershaft from the other of said driving means, and mechanism controlled by the shifter rod when moving to an intermediate position to tighten the brake band on the brake drum.

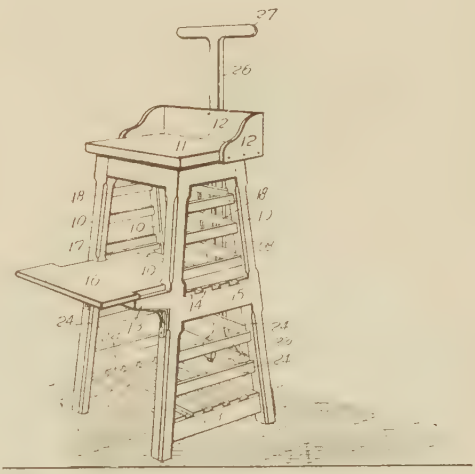
1,416,017. COUNTERSHAFT BRAKE. WILLIAM F. GROENE, Cincinnati, Ohio, assignor to The R. K. Le Blond Machine Tool Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Apr. 1, 1921. Serial No. 457,785. 9 Claims. (Cl. 192—17.)

1. A mechanism of the character described, comprising a countershaft, driving means therefor, means to connect the driving means with the shaft or disconnect the same therefrom, including a shifter rod, a brake wheel mounted on said shaft, a brake band for said wheel, a lever having a pair of arms connected to the ends of the brake band, an applying arm and a releasing arm, a



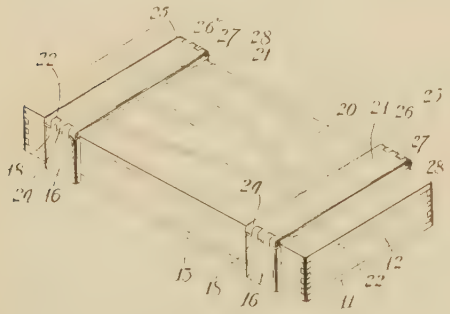
spring co-operating with the applying arm to apply the brake, and a finger for engagement with the releasing arm and adapted slidably to engage the shifter rod, the latter having a notch to allow the finger to drop therein to apply the brake.

1,416,018. COMBINATION ARTICLE OF FURNITURE. FRANCIS CADWALADER HALL, Washington, D. C. Filed Apr. 23, 1921. Serial No. 463,873. 1 Claim. (Cl. 155—1.)



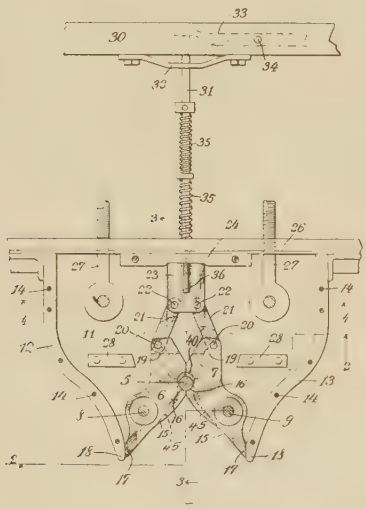
An article of manufacture comprising four legs arranged at the respective corners of a quadrangle, a board slidably supported by the legs at a level suitable for such board to serve as a seat, the board being slidable to project its forward portions beyond the legs at the front to serve as a seat and also as a step, a platform supported by the legs spaced above said board at a height enabling said platform to serve as a step, and slats extending above but adjacent the board, the space between the slats and said platform forming a receptacle for books.

1,416,019. CANDY BOX. PETER HALL, Pasadena, Calif. Filed Apr. 14, 1920. Serial No. 373,918. 2 Claims. (Cl. 217—57.)



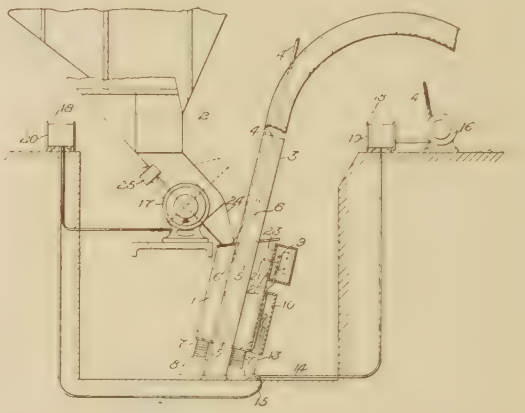
1. In combination, a box having a top, bottom, sides and ends, battons on each side and top, and pintles connecting the battons on each to the battons on the top of the box, thereby forming hinged connections for the top, both at the front and back of the box.

1,416,020. COUPLING DEVICE. NICHOLAS HANSEN, Bogota, N. J. Filed Oct. 1, 1920. Serial No. 414,013. 1 Claim. (Cl. 213—67.)



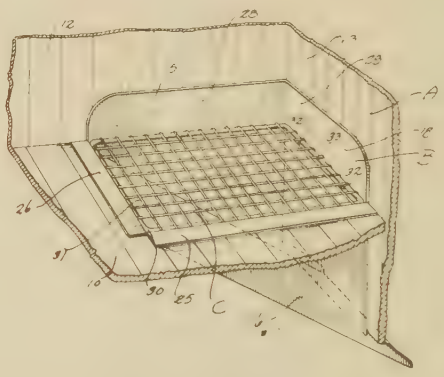
The combination with a relatively vertically disposed coupling member, of a coupling adapted to receive and to be coupled to said coupling member, said coupling comprising a relatively flat casing consisting of an upper and a lower symmetrical plate, a frame, means for joining said plates and frame, anchor bolts attached to the said plates for attaching the said casing to a vehicle, a pair of coupling jaws pivoted between said plates, a slide, links pivoted to the latter and to the said jaws, keyways formed in said plates, keys on said slide adapted to move in said keyways to guide the slide, a rod in the latter projecting rearwardly from the said casing, a plurality of springs on said rod for maintaining the slide in normal rearward position and the jaws in coupling position, means for operating the slide to open the jaws, stops secured to said plates to limit the opening movement of the jaws, stop portions formed on the latter and adapted to abut the said casing forwardly of the jaw pivots, said casing being provided with an open throat formed cut out portion adapted to receive and guide the said coupling member into automatic engagement with the said coupling irrespective of the relative vertical dimensions of the latter and the coupling member.

1,416,021. TELPHERAGE SYSTEM. WILLIAM E. HARRISON, Philadelphia, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 3, 1920. Serial No. 349,240. 16 Claims. (Cl. 214—125.)



1. A conveyor system comprising a carrier adapted to transport material, a motor, for directly actuating said carrier, a device adapted to supply material to said carrier, and means responsive to the volume of material supplied to said carrier for controlling the operation of said motor.

1,416,022. WASTE CHUTE. JAMES F. HARTLEY, Chattanooga, Tenn. Filed Jan. 13, 1921. Serial No. 436,980. 4 Claims. (Cl. 119—15.)

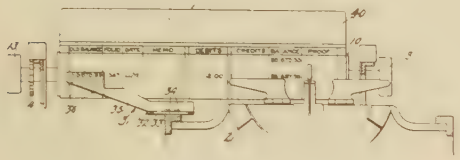


1. As an article of manufacture, a housing including a plurality of sides, certain of said sides projecting upwardly of certain other of said sides, and an inclined floor extending from one side of said housing to an opposite side, said last mentioned side having an opening therein adjacent said inclined floor.

1,416,023. COMBINED TYPEWRITING AND COMPUTING MACHINE. WALTER J. HAUSMAN, St. Louis, Mo., assignor to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Jan. 6, 1921. Serial No. 435,326. 13 Claims. (Cl. 235—61.)

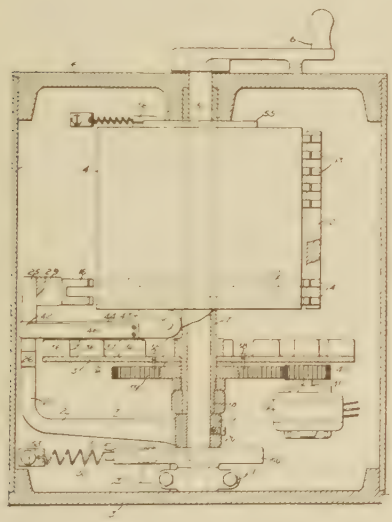
3. In a combined typewriting and computing machine comprising a carriage having a platen journaled therein

and around which a ledger-sheet is adapted to be fed, said ledger-sheet having an "old balance" column adjacent the left side edge thereof, a "balance" column near the right side edge, and a "proof" column adjacent said "balance" column, the amount in said "old balance" column being adapted to be copied from said "balance"



column, the same amount being adapted to be copied into said "proof" column, means mounted on said machine for blinding the amount in said "old balance" column to necessitate copying said amount from said "balance" column when it is desired to enter the amount in the "proof" column.

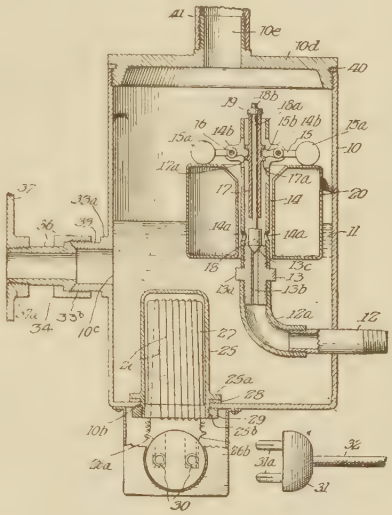
1,416,024. SYSTEM OF CONTROL. RUDOLF E. HELLMUND, Swissvale, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed June 18, 1919. Serial No. 305,108. 7 Claims. (Cl. 172—179.)



7. In control apparatus, the combination with a rotatable contact-carrying drum, of a relatively movable contact-carrying arm bearing upon said drum, a pilot motor, manual means for actuating said arm and for effecting engagement of said motor and said drum, and means adapted to break the pilot-motor circuit upon engagement of said arm and a portion of said drum.

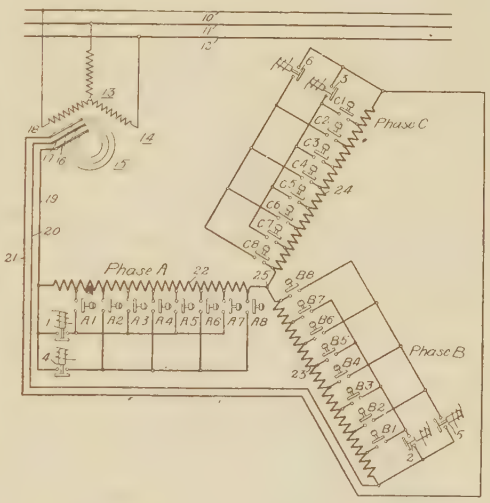
1,416,025. HEATING APPARATUS. JOSEPH I. HERBERT, Chicago, Ill. Filed July 29, 1920. Serial No. 399,867. 8 Claims. (Cl. 219—38.)

1. In apparatus of the class described, comprising a radiator, a steam supply pipe, and a condensation exhaust pipe leading to and from said radiator respectively, a tank located adjacent said radiator, said supply and exhaust ducts leading from and to said tank respectively,



a heating unit located in said tank, means to supply fluid to said tank, and means to maintain the level of said fluid constant.

1,416,026. SYSTEM OF CONTROL. LLOYD J. HIBBARD, Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed May 14, 1920. Serial No. 381,279. 9 Claims. (Cl. 219—20.)

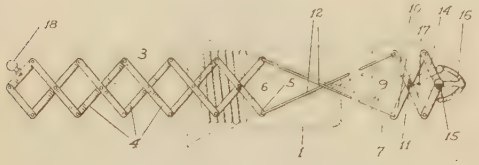


1. The combination with a plurality of resistors having a common terminal, of means including a plurality of sets of alternately-employed switches for progressively short-circuiting sections of said resistors in a predetermined rotation.

1,416,027. DIRECTION SIGNAL FOR MOTOR VEHICLES. JACOB G. HIEB, Oakland, Calif. Filed July 11, 1921. Serial No. 483,655. 7 Claims. (Cl. 116—40.)

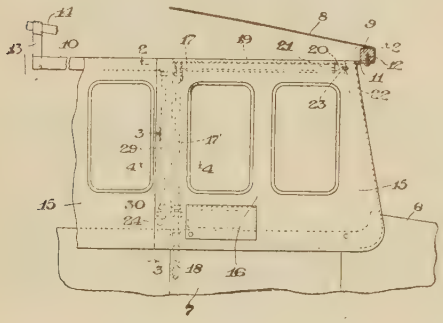
1. A direction signal for motor vehicles comprising a lazy tongs signal structure pivoted to a fixed member of

the vehicle, and a hand actuated means for contracting and extending said structure and for giving the same



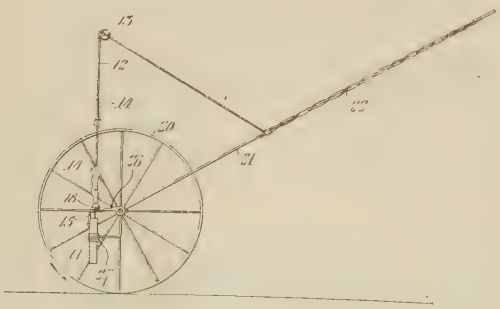
any one of a number of predetermined angular settings in a common vertical plane while so extending said structure.

1,416,028. SIDE-CURTAIN DOOR. GUSTAV E. HOLMES, JOHN M. BOSTROM, and AXEL G. BOSTROM, Milwaukee, Wis. Filed Dec. 22, 1920. Serial No. 432,492. 3 Claims. (Cl. 296—139.)



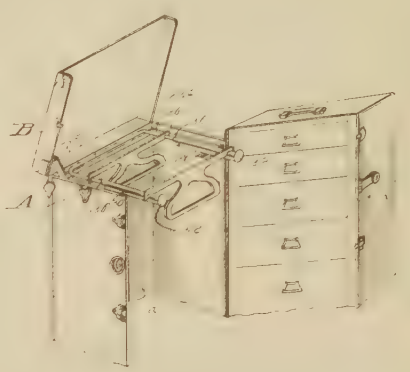
3. In an automobile enclosure, the combination of a side curtain having a door portion with a sealing flap along its opening side edge, a door rod for the curtain connected to the door of the automobile, and a reinforcing member having spaced laterally extending portions secured to the door rod and a vertically extending portion connecting said laterally extending portions to reinforce the outer edge, top and bottom portions of said flap.

1,416,029. TOY. HERBERT E. HOUSE, Pasadena, Calif. Filed Dec. 20, 1920. Serial No. 431,896. 8 Claims. (Cl. 46—45.)



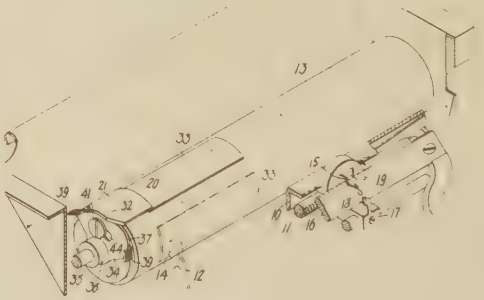
1. A toy comprising: a frame; an axle turning in bearings on said frame; a figure; means for restraining said figure to move in a definite path with relation to said axle; a wheel on said axle; spring means upon which said figure rests at one end of its path; and means by which said wheel compresses and suddenly releases said spring means.

1,416,030. HANGER SUPPORT FOR WARDROBE TRUNKS. THOMAS M. HOUSE, Richmond, Va. Filed Nov. 23, 1921. Serial No. 517,250. 1 Claim. (Cl. 211—16.)



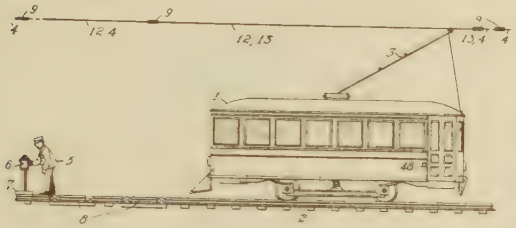
In a wardrobe trunk, a hanger section open at its top, a hinged cover for said top, a substantially U-shaped reinforcing bar attached to the upper end of the hanger section and bearing against the inner face thereof, a substantially U-shaped rod disposed within the reinforcing bar, the transverse portion of said rod being disposed adjacent to and slightly above the transverse portion of the reinforcing bar, the arms of the U-shaped rod being integral with the transverse portion thereof and being disposed inward of the arms of the reinforcing bar and extending parallel thereto, brackets rigidly connecting the transverse portion of said rod to the reinforcing bar at a plurality of points, brackets rigidly connecting the outer ends of the arms of the rod to the reinforcing bar and tubular members having telescopic engagement with the arms of the U-shaped member and adapted, when drawn out, to form continuations thereof, said tubular members having their inner end edges disposed at an angle to the axis of the tubular member, and stops limiting the outward movement of the tubular members.

1,416,031. TYPEWRITING MACHINE. ARTHUR E. HOWELL, Brooklyn, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Aug. 7, 1919. Serial No. 315,812. 9 Claims. (Cl. 197—136.)



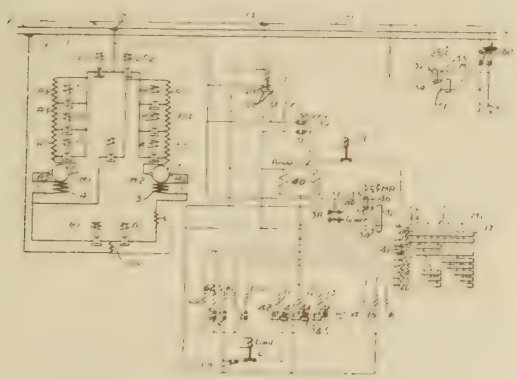
1. In a typewriting machine, the combination with a traveling carriage and a revoluble platen therein, of a clip extending from one end of the platen toward the middle thereof, a pivot within the platen about which the clip swings to and from the platen surface, an axle for the platen, and a cam journalled on the axle and lying against the end of the platen adapted to be rotated to control the clip.

1,416,032. MOTOR-CONTROL SYSTEM. GEORGE R. IRWIN, Turtle Creek, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 13, 1920. Serial No. 430,158. 11 Claims. (Cl. 104——149.)



1. The combination with a vehicle and a motor mounted thereon for actuating said vehicle, of a trolley wire having an energized portion and a normally de-energized portion, a stationary controller relatively removed from said vehicle for governing the operation of said motor by energizing said normally de-energized portion.

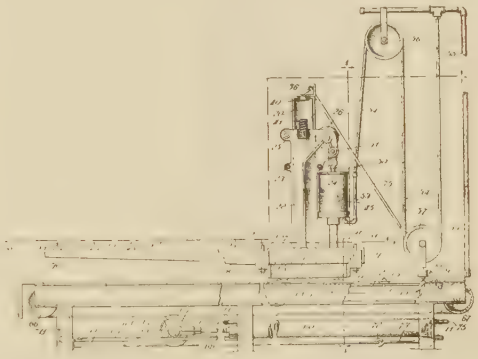
1,416,033. SYSTEM OF CONTROL. HOWARD H. JOHNSTON, Edgewood Park, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed July 22, 1918. Serial No. 245,971. 4 Claims. (Cl. 104—149.)



3. In a system of vehicle control, the combination with a motor mounted on said vehicle, of means for operating said motor from a point on the vehicle, means for operating said motor from a point external to the vehicle, and independent switching means for permitting the one or the other type of operation in accordance with the position of said switching means.

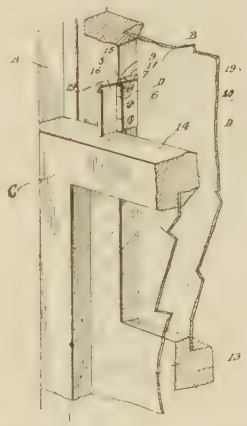
1,416,034. OVEN CHARGER. BERTRAND B. KAHN, Cincinnati, Ohio, assignor to The Estate Stove Company, Hamilton, Ohio, a Corporation of Ohio. Filed June 10, 1920. Serial No. 387,978. 13 Claims. (Cl. 214—26.)

1. The combination with a track, of a carriage horizontally movable thereon, a vertical guide column mounted on said carriage, a second carriage slidably mounted on said guide column and comprising an elongated guide member having an anti-friction roller at the lower end of its front side and the upper end of its rear side bearing on said guide column, a charging bar secured to said second carriage and projecting beyond the front end of said first-named carriage, means for elevating said second carriage comprising a cylinder supported on said first-named carriage and a piston mounted in said cylinder and connected with the upper end of said elongated guide member, and means for moving said first-named carriage backward and forward on said track comprising a second cylinder located beneath said track, a piston sliding in said second cylinder and having a piston rod projecting from the end thereof, two sheaves carried by the outer end of said piston rod, supporting wheels for the front end of said piston rod, tracks for said supporting wheels, a single



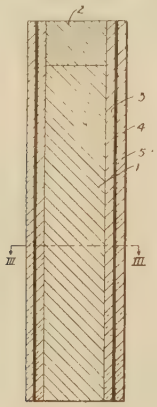
sheave at each end of said first-named track, a cable trained over said single sheave, one end of said cable passing over one of the sheaves carried by said piston rod and secured adjacent to the rear end of said track, the other end of said cable passing over the opposite side of said other sheave carried by said piston rod and secured adjacent to the front end of said track and means for securing said first-named carriage to the portion of said cable extending between said single sheaves.

1,416,035. WINDOW LOCK. MARTIN T. A. KELLY, Joliet, Ill. Filed Nov. 8, 1919. Serial No. 336,588. 3 Claims. (Cl. 292—207.)



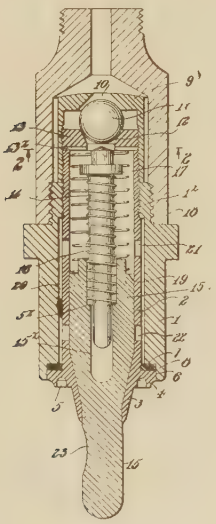
1. The combination with sliding sashes including side and end rails, of a fastener therefor including a stationary wing, means to secure the stationary wing to one of the side rails of one of the sashes in spaced relation to the end rails thereof, a movable wing hingedly secured to the outer end of the stationary wing adapted to extend in direct alignment with the stationary wing and in the path of the lower sash for engaging the upper end rail thereof, eyes formed on the upper ends of the wings and a removable pin arranged to fit in said eyes when the wings are in aligned position.

1,416,036. INSULATION AND METHOD OF MAKING SAME. WILLARD H. KEMPTON, Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed July 25, 1918. Serial No. 246,764. 12 Claims. (Cl. 154—2.)



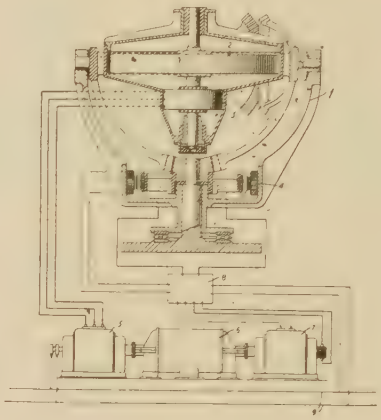
1. A molded composite insulation comprising a material which has great dielectric strength disposed between a plurality of layers of sheet material impregnated with a hardened binder.

1,416,037. DISPENSING VALVE. LOUIS KOOPERSTEIN, New York, N. Y., assignor to West Disinfecting Company, New York, N. Y., a Corporation of New York. Filed Feb. 20, 1920. Serial No. 360,147. 4 Claims. (Cl. 221—112.)



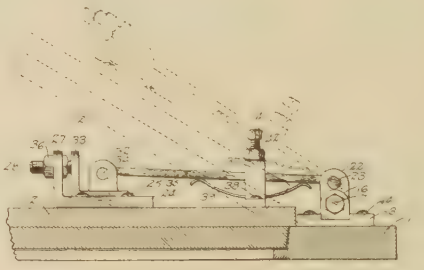
1. In a dispensing valve, in combination, a casing, a sleeve disposed within said casing to form a chamber intermediate its outer wall and the casing, inlet and outlet ducts for said chamber and communicating with the interior of the sleeve, a valve controlling the admission of fluid into the sleeve, a plunger normally closing the said outlet duct, the said plunger being adapted in its endwise movement to operate said valve and to successively close the inlet duct and open the outlet duct for the passage of fluid from the chamber, thence intermediate the sleeve and the plunger to a point exterior to the casing.

1,416,038. DRIVING SYSTEM FOR GYROSCOPIC STABILIZERS. BENJAMIN G. LAMME, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 19, 1917. Serial No. 149,567. 15 Claims. (Cl. 74—78.)



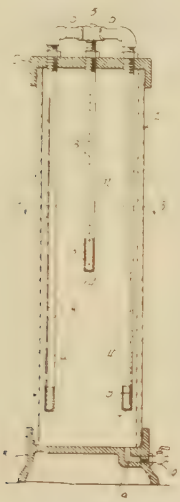
15. The combination with the moving fly-wheel of a gyroscopic stabilizer, of a substantially constant-speed induction motor spinning said flywheel, an alternating-current generator supplying said induction motor, means mechanically associated with said generator for supplying direct current, and a direct-current precession motor adapted to be connected thereto, said motors and generators adapted either to absorb or to deliver energy in such manner as to utilize said flywheel to equalize the total energy of the system over a complete cycle of operation.

1,416,039. HINGE. FREDERICK A. LANGSTON and GEORGE A. HOARD, Chicago, Ill. Filed Jan. 3, 1922. Serial No. 526,598. 4 Claims. (Cl. 16—130.)



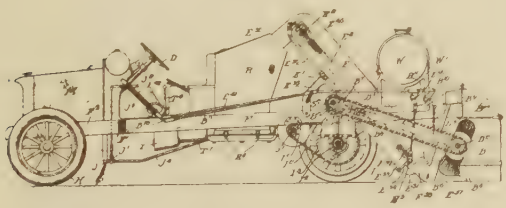
1. In a hinge, the combination of a plate adapted to be attached to a door jamb and provided wiah an undercut vertically disposed guideway and an outwardly projecting portion at the lower end of the guideway, a pintle-carrying member slidably disposed in said guideway, an adjusting screw threaded through said projecting portion and engaged with said pintle-carrying member, whereby said member is adjustably supported, a leaf strap pivoted on said member, a plate adapted to be attached to a door and provided with an undercut horizontally disposed guideway and an outwardly projecting portion at one end of said guideway, said strap being slidably engaged in said guideway, and an adjustable connection between said strap and the last mentioned projecting portion, whereby the position of said door relatively to said strap may be adjusted.

1,416,040. SEPARATOR. AXEL LEVEDAHL, Aurora, Ill., assignor to Independent Pneumatic Tool Company, Chicago, Ill., a Corporation of Delaware. Original application filed May 26, 1920, Serial No. 384,502. Divided and this application filed Sept. 7, 1920. Serial No. 408,483. 3 Claims. (Cl. 183—81.)



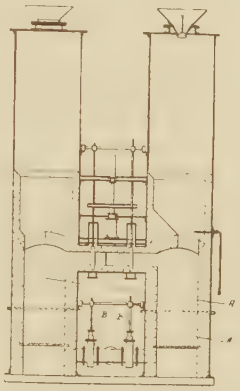
1. A separator for compressed air, comprising a cylindric casing closed at both ends and having a valve-controlled drain at one end, a compressed air supply pipe extending into said casing from the other end and arranged close to the side wall of the casing, said pipe having in its length a plurality of ports arranged to discharge air against the casing wall closely adjacent the pipe and at an angle causing the air to have a rotary movement in said casing for setting up centrifugal forces to separate from the air heavier matter carried thereby, and an outlet pipe extending into said casing substantially in the center thereof and having a plurality of ports in its length to carry off the clean dry air.

1,416,041. MOTOR-DRIVEN PICK-UP SWEEPER. MOSES VOLNEY LIDDELL, Harvey, Ill., assignor to Austin Manufacturing Co., Chicago, Ill., a Corporation of Illinois. Filed July 24, 1918. Serial No. 246,437. 6 Claims. (Cl. 15—84.)



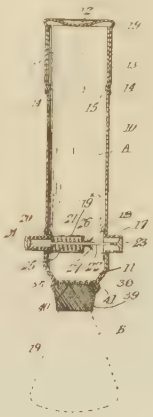
1. In a sweeping machine, inner and outer frames, each comprising longitudinal rails, a cross beam spacing the rear portions of said rails apart and leaving ends of the outer frame rails extending rearwardly beyond it, a sweepings receptacle mounted upon the forward portion of both frames, and an elevator mounted upon the rear portions thereof forward of the cross beam and extending rearwardly and downwardly into the space between the rear ends of the side rails and having its upper forward end in position to deliver to the sweepings receptacle.

1,416,042. GAS-GENERATING PLANT. JAMES LOWE, Auckland, New Zealand. Filed Oct. 11, 1919. Serial No. 330,041. 2 Claims. (Cl. 48—83.)



1. In a plant for the continuous, simultaneous manufacture of water gas and producer gas, the combination of a pair of co-ordinate, companion producers disposed side by side; an outlet flue for the producer gas located at one side of the producers and communicating with both of them; a separate outlet flue for the water gas located at the opposite side of the producers and likewise in communication with both of them; damper means associated with each of said flues to open either flue and simultaneously close the other; a steam valve and an air valve for each producer; and operating connections between said steam and air valves and said damper means for simultaneously opening the steam valve and water gas damper of either producer and closing those of the other producer, and for simultaneously closing the air valve and producer gas damper means of the first producer and opening those of the second producer.

1,416,043. POWDER DISPENSER. FRANK MCLAUGHLIN, Ottawa, Ontario, Canada. Filed Dec. 26, 1919. Serial No. 347,382. 1 Claim. (Cl. 221—102.)



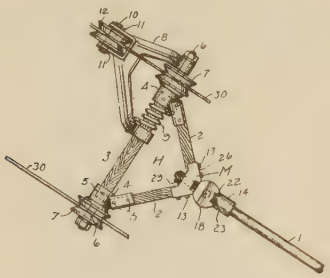
A dispenser for material in powdered form comprising a powder containing casing having a laterally directed powder discharge orifice in its wall, an annular flange surrounding such orifice, a spring held plunger rod having a head having its exterior diameter corresponding in diameter to the interior diameter of the annular flange and provided with a narrow annular edge portion fitting within

and around the interior periphery of the flange, manual means for operating the plunger rod to carry the head outward clear of the flange and means following up the head during its outward movement and entering the annular flange for ejecting the powder interposed between such head and the ejecting means when the head is clear of the flange.

1,416,044. DRESS SHIELD. ANITA MARTIN, New York, N. Y. Filed Apr. 28, 1920. Serial No. 377,191. 1 Claim. (Cl. 2—34.)

As a new article of manufacture, a dress shield for women's wearing apparel having a low cut and terminating in a straight top line, said dress shield being a single flap shield consisting of a layer of water-proof material covered with silk, the flap having a straight top line to be disposed with same along the straight top line of the garment on the inside of same.

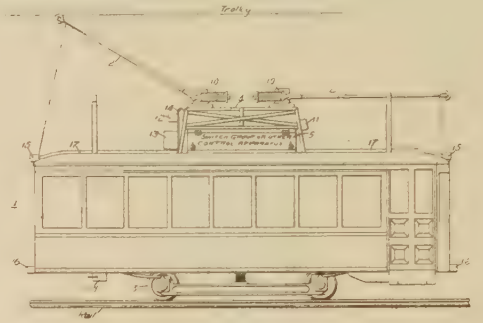
1,416,045. ELECTRIC-CURRENT-COLLECTING DEVICE. SAMUEL S. MATTHES, Mansfield, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a Corporation of New Jersey. Filed Oct. 17, 1921. Serial No. 508,120. 15 Claims. (Cl. 191—57.)



1. A collector for electric currents comprising in combination a support member and a head mounted on the support member in rotatable and pivotal relation thereto, the head comprising a triangular shaped member having a contacting member at each of two of its corners and the third corner adjacent the support member, and having the contacting members insulated from each other and a trailing member at one corner of the triangular member to engage a trolley wire and maintain the head in alinement with the trolley wire.

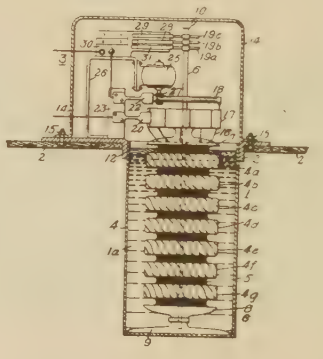
1,416,046. MOUNTING OF CONTROL APPARATUS. HARRY R. MEYER, Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed May 6, 1919. Serial No. 295,177. 2 Claims. (Cl. 105—49.)

2. In a motor-driven vehicle, the combination with a box-like structure mounted on the vehicle roof, of a plurality of trolley-poles mounted upon said structure and



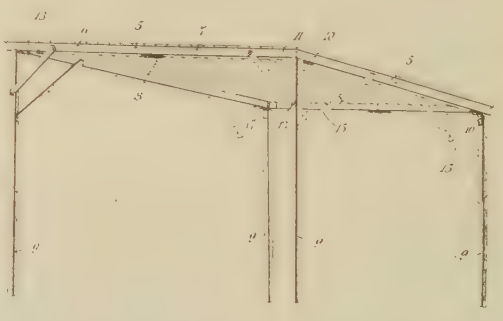
corresponding to different directions of travel, and control apparatus for a vehicle motor located within said structure.

1,416,047. CONTROL APPARATUS. HARRY R. MEYER, Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed June 9, 1920. Serial No. 387,592. 9 Claims. (Cl. 219—48.)



1. Control apparatus comprising a rotatable member, a plurality of resistors rotatable therewith, power-operated means for actuating said member and a switch governed by said member for controlling the circuit of said resistors.

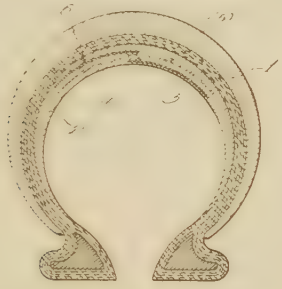
1,416,048. FOLDING TABLE. LLOYD J. MILLER, Newark, N. J., assignor to Telescope Cot Bed Company, Inc., a Corporation of New York. Filed Jan. 21, 1920. Serial No. 352,975. 10 Claims. (Cl. 45—11.)



1. A folding supporting frame for tables, cots, or similar articles, said frame provided with side members, fixedly

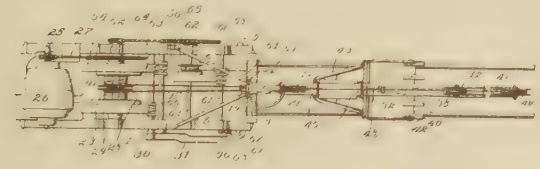
secured at one end and comprising a plurality of parts adapted to be placed in collapsed or extended relation to each other; legs for said frame adapted to be folded, attached thereto; and releasable means at the free end of a side member adapted to hold said member in position when the frame is in use.

1,416,049. PUNCTUREPROOF TIRE. EDWARD J. MORAN, Chicago, Ill. Filed Oct. 19, 1921. Serial No. 508,642. 3 Claims. (Cl. 152—18.)



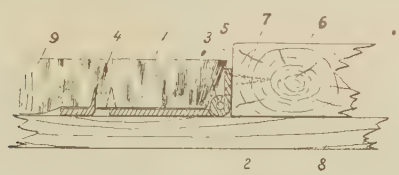
1. A cushioning member having imbedded therein a set of two groups of plates each arranged in a row and spaced apart from each other, the plates of one group overlying and completely covering the spaces between the plates of the other group, and a second set of two groups of plates similar to the other groups, the two sets lying on opposite sides of a center line and the plates of each set extending a short distance past said center line so as to overlap the adjacent ends of the plates of the other set.

1,416,050. MINE LOADING MACHINE. JAMES P. MOSIER, St. Francois, and ERNIST R. CAMPBELL, Desloge, Mo., assignors to National Lead Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 15, 1920. Serial No. 366,168. 12 Claims. (Cl. 214—102.)



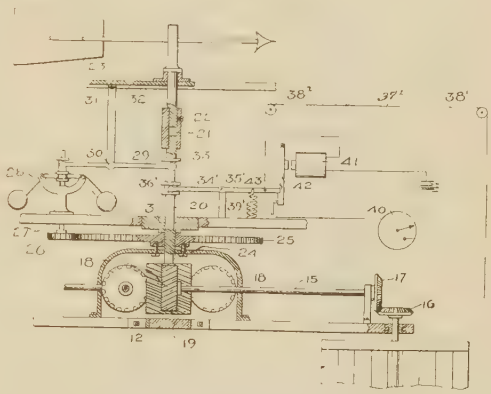
1. A loading machine comprising a mast, a boom pivotally mounted on the lower portion of said mast to swing vertically and sidewise, means for moving said boom comprising a rope operatively connected to the free end portion of the boom and supported from the top portion of the mast and means whereby the loading of the boom will bring about the lateral tilting of the mast to facilitate the swinging of the boom towards the point of discharge.

1,416,051. FASTENER FOR DOORMATS, CARPETS, RUGS, AND THE LIKE. HERMANN MÜLLER, St. Gallen, Switzerland. Filed Apr. 23, 1921. Serial No. 463,891. 2 Claims. (Cl. 16—4.)



1. A fastening device of the character set forth, comprising in combination, a member permanently attachable to a fixed object, and a member in hinged connection therewith with capability of relative angular displacement of at least 180 degrees, and wedge-shaped prongs extending from the second said member in relative angular arrangement, the second said member being substantially longer than the first said member.

1,416,052. WINDMILL. CLYDE NOLAN, Elkhart, Ind., assignor of one-half to B. F. Winterhoff, Elkhart, Ind. Filed Sept. 13, 1919. Serial No. 323,532. 3 Claims. (Cl. 170—25.)

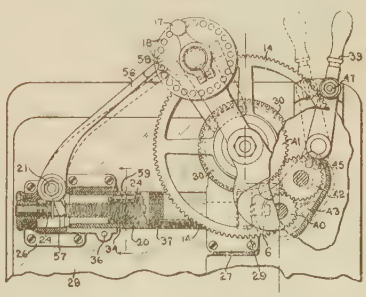


1. In a speed control device for wind mills, a master gear, a plurality of gears meshing therewith, each of said meshing gears having a shaft, and a wind blade geared to each of said shafts, said master gear being capable of rotation and reciprocation without disengaging said meshing gears and so constructed as to impart rotation to each of said shafts when rotated or reciprocated, whereby the angle of wind deflection of said blades may be changed.

1,416,053. PROCESS OF EXTRACTING BUTTER FAT OR OIL FROM MILK AND CREAM. CHARLES E. NORTH, New York, N. Y. Filed Sept. 4, 1920. Serial No. 408,339. 5 Claims. (Cl. 99—13.)

1. In the process of extracting oil from milk, subjecting cream to agitation to secure agglomeration of the fat particles, and admixing therewith water at a temperature to substantially liquefy said particles and in amount to effect the rising of such fat in an oily layer.

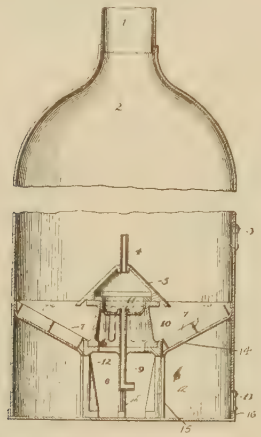
1,416,054. CROSS-FEED MECHANISM FOR MACHINE TOOLS. CHARLES H. NORTON, Worcester, Mass., assignor to Norton Company, Worcester, Mass., a Corporation of Massachusetts. Filed Apr. 2, 1921. Serial No. 457,929. 10 Claims. (Cl. 51—165.)



1. A machine tool comprising a slide, a cross feed screw for moving said slide and means for rotating said screw to move the slide rearwardly through the effective length of said screw and bring it forward again to a predetermined point, comprising a stopping device effective to limit

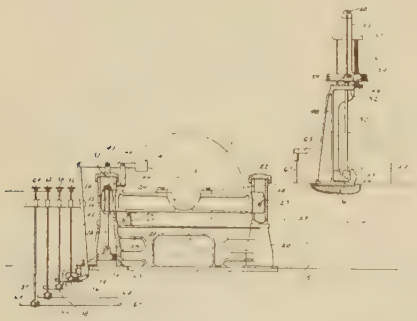
the movement of the screw, which is normally inoperative, and means to render said device operative only after a predetermined forward movement of the slide to stop said movement.

1,416,055. FURNACE. GEORGE L. PERRINE, Gladstone, Oreg. Filed Dec. 30, 1919. Serial No. 348,272. 3 Claims. (Cl. 126—112.)



1. A grate comprising a support having spaced standards adapted to extend into the ash pit of a furnace or the like, said support being provided with a shoulder at the top, a flanged grate seated on the support within said shoulder and having vertical slots in the same, a disc-shaped plate mounted in the top of the grate and having a bottom opening, and air pipe extending from said opening into the bottom portion of the support for receiving air from the ash pit, a cap mounted on the flanged grate above the plate and sloping downwardly and outwardly, and forming a heating space therebeneath for the air, and an outlet at the top of the cap.

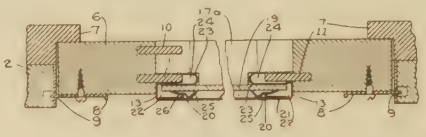
1,416,056. HYDRAULIC CONTROL ATTACHMENT FOR BEATING, BLEACHING, AND WASHING ENGINES. EMIL A. PETERSON and WILLIAM J. MCGINNIS, Appleton, Wis. Filed Jan. 26, 1920. Serial No. 354,155. 19 Claims. (Cl. 92—24.)



1. In a paper pulp machine, the combination with a bed plate and a beating roll coacting therewith to beat materials passing therebetween into a pulp, of means for raising said beating roll, and means for automatically lowering said roll as the density of the material being worked upon decreases.

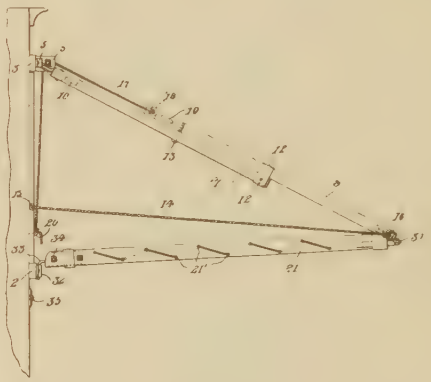
1,416,057. STORM WINDOW. JOHN PETERSON, Minneapolis, Minn. Filed Jan. 7, 1918. Serial No. 210,657. 4 Claims. (Cl. 189—76.)

1. In combination with a storm sash having vertical guides in its side rails, of a sliding frame composed of metallic top and bottom and side rails, the side rails formed with slots and the other rails formed with tongues



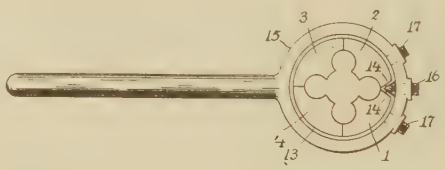
fitting in said slots, both sets of rails being formed with abutting lugs positioned at one corner of the frame, and means fastening one lug to the other.

1,416,058. COMBINED CLOTHES HANGER AND WINDOW LADDER. JOHN PETYO, Gary, Ind. Filed Feb. 10, 1921. Serial No. 443,944. 6 Claims. (Cl. 228—2.)



1. A combined clothes drier and ladder comprising an extensible support hinged at its upper end to a window frame, a rope attached to the extensible support for retracting the same, and a combined drying frame and ladder detachably connected at its ends to the extensible support and window frame respectively.

1,416,059. THREAD-CUTTING DIE. CARL J. PIHL, (now by judicial change of name Carl J. Piel,) Boston, Mass. Filed Apr. 18, 1919. Serial No. 291,375. Renewed July 10, 1920. Serial No. 395,381. 9 Claims. (Cl. 10—117.)

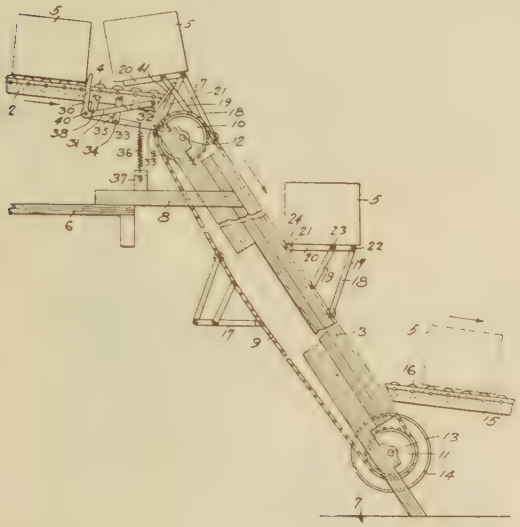


1. A die comprising a plurality of thread-bearing sections separable one from another and a spring clip peripherally binding them together said clip having an inturned hook at each end adapted to engage the opposed surfaces of two adjacent sections, substantially as described.

1,416,060. BOX OR PACKAGE HANDLING APPARATUS. WILLIAM G. PRICE, Yakima, Wash. Filed Oct. 11, 1919. Serial No. 329,983. 11 Claims. (Cl. 198—157.)

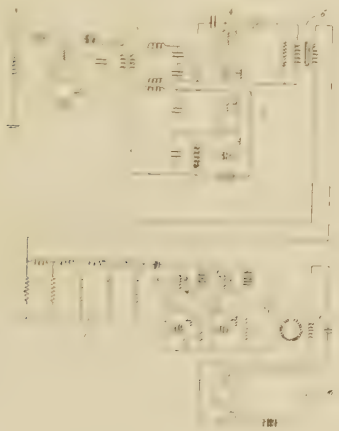
1. A conveyer comprising a traveling carrier traversing a non-rectilinear path at its upper end, an article-supporting member disposed to travel with said carrier

and adapted to rise above the said upper end thereof, and braces pivotally connected to said carrier and adapt-



ed to maintain said member in article-supporting position while passing around and above the said upper end of said carrier.

1,416,061. RADIORECEIVING SYSTEM HAVING HIGH SELECTIVITY. MICHAEL I. PUPIN, Norfolk, Conn., and EDWIN H. ARMSTRONG, Yonkers, N. Y. Filed Dec. 18, 1917, Serial No. 207,659. Renewed May 27, 1921. Serial No. 473,044. 11 Claims. (Cl. 250—8.)



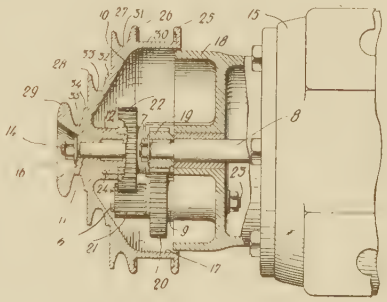
2. A radio-receiving system having means interacting with the received oscillations to produce two series of current pulsations of frequencies within the range of good audibility and so related that the ratio of the two frequencies corresponds to a simple musical interval, and a telephone circuit upon which the current pulsations are impressed to produce a compound hermonious tone.

1,416,062. COUMARONE RESIN AND PROCESS OF MAKING SAME. LOUIS RABINOVITZ, Brooklyn, N. Y., assignor to Ellis-Foster Company, a Corporation of New Jersey. Filed Aug. 12, 1919. Serial No. 316,979. 6 Claims. (Cl. 260—7.)

2. A process of making coumarone resin which comprises polymerizing the courmarone contained in solvent naphtha by sulphuric acid of approximately 66 degrees Bé, in the absence of substantial amounts of more dilute sulphuric acid, while thoroughly agitating the mass, and thereafter hardening the resin by heating to about 180 degrees C. in a high vacuum.

5. A hard coumarone resin having an iodin number below 50.

1,416,063. PULLEY. CHARLES E. REDDIG, Long Island, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Jan. 20, 1920. Serial No. 352,688. 7 Claims. (Cl. 64—17.)

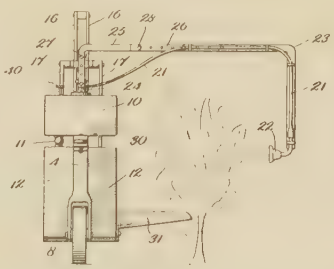


1. A pulley comprising a body portion and a plurality of annular rims carried thereby, one of said rims shaped to form sprocket teeth.

1,416,064. PROCESS OF MAKING ARTIFICIAL LEATHER. ROLAND B. RESPESS, New York, N. Y., assignor, by mesne assignments, to Respro Inc., Cranston, R. I., a Corporation of Rhode Island. Filed June 24, 1919. Serial No. 306,453. 1 Claim. (Cl. 91—68.)

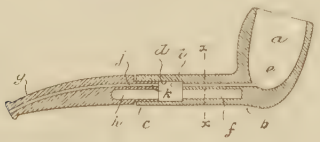
The herein described process of making artificial leather consisting in saturating a felted fabric under pressure with a binding agent to form a sheet, drying the sheet, pressing under tension and coating the surface of the sheet with a leather dressing.

1,416,065. SPRAYING APPARATUS. JOHN A. RHODES, Macon, Ga., assignor of one-third to Albert E. Jordan and one-third to Horatio H. Newman, Sandersville, Ga. Filed Oct. 23, 1920. Serial No. 419,060. 5 Claims. (Cl. 299—41.)



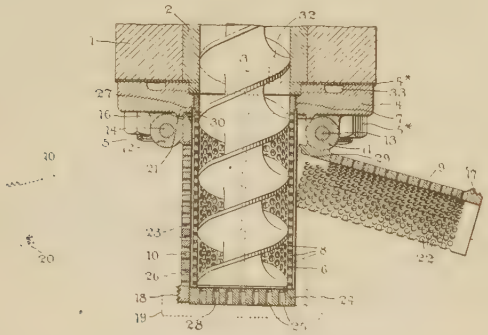
1. In a device of the class described the combination of a frame; a receptacle carried by said frame; a second receptacle carried by said frame; regulable connections between said receptacles to control the flow from the second to the first receptacle; a nozzle adapted to deliver liquid to a plant; a pump associated with said first receptacle adapted to deliver liquid therefrom to said nozzle; and means associated with said first receptacle adapted to receive surplus liquid delivered from said nozzle to said plant and to return it to said receptacle, substantially as described.

1,416,066. TOBACCO PIPE. JOHANNES RIEDEL, Pinnaroo, South Australia, Australia. Filed Mar. 16, 1920. Serial No. 366,329. 1 Claim. (Cl. 131—12.)



A tobacco pipe comprising a bowl and a bowl stem having a smoke passage, an enlarged air space between the end of the passage and the end of the stem, a portion of said space being reduced in diameter and projected beneath said passage and parallel to the latter, in combination with a mouth-piece having an annular reduced portion at one end thereof adapted to closely fit the walls of the enlarged air space in the stem, said reduced portion being substantially shorter than the depth of the said air space into which it is received, whereby a chamber is formed between the end of the inner wall of the air space and the adjacent end of the mouth-piece, the transverse section of the said chamber being equal to the full bore of the air space, an outlet smoke passage extending longitudinally of said mouth-piece and having its inlet end at the end of the reduced portion thereof and in axial alignment with the first named smoke passage, and a separate air space in the mouth-piece extending parallel to the smoke passage and communicating with the said chamber.

1,416,067. STRAINER HEAD FOR TUBING MACHINES. VERNON ROYLE, Paterson, N. J. Filed Dec. 26, 1919. Serial No. 347,568. 30 Claims. (Cl. 100—48.)



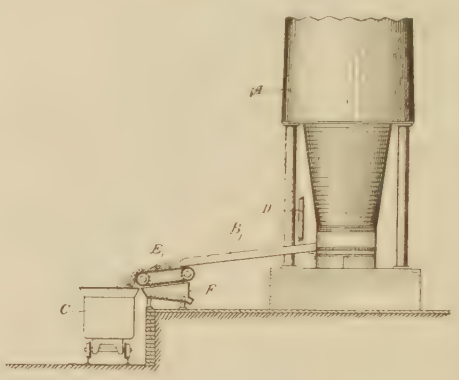
1. A device of the character described comprising, a tubular element including a member divided to form two parts, said parts being fitted to be moved into and out of operative position, and a cap for locking the parts in operative position.

20. A device of the character described comprising, a tubular element including inner and outer perforated members, the perforations in said inner member being noncoincident with and of different size from the perforations in said outer member.

1,416,068. GAME. FERDINAND A. SCHAETZKE, Milwaukee, Wis. Filed Jan. 3, 1920. Serial No. 349,266. 2 Claims. (Cl. 46—59.)

1. A game dart having a pointed leading end and a tail piece, said tail piece being made of a light flimsy material representing a flower and being normally folded while in flight but unfolding upon the abrupt arresting of the flight of the dart thereby having the appearance of an opened bud or flower.

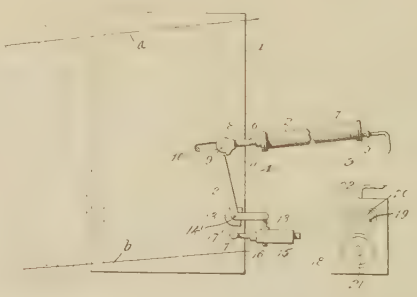
1,416,069. METHOD OF OBTAINING GRANULAR SLAG. WILHELM SCHUMACHER, Osnabruck, Germany. Filed Mar. 29, 1912. Serial No. 687,182. 2 Claims. (Cl. 75—146.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



1. The herein described method of producing a substantially water-free granular slag, which consists in subjecting the surface of a stream of molten slag as it discharges from the furnace, to the cooling action of water and separating the water from the slag while the latter still retains sufficient heat to reject the water and before the slag becomes cool enough to permit water to exist in liquid form adjacent to its surfaces, thus preventing water from at any time penetrating into the pores of the slag.

2. The herein described method of producing a substantially water-free, granular slag, which consists in subjecting the surface of a stream of molten slag as it discharges from the furnace to the cooling action of water, separating the water from the slag while the latter still retains sufficient heat to reject the water and before the slag becomes cool enough to permit water to exist in liquid form adjacent to its surfaces, thus preventing water from at any time penetrating into the pores of the slag, and then passing the separated hot slag into a suitable receptacle for further cooling.

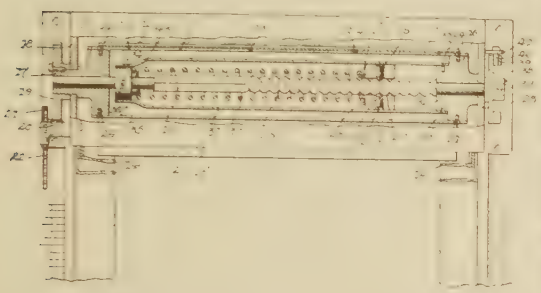
1,416,070. MEANS FOR AUTOMATICALLY OPERATING BULKHEAD DOORS AND SLUICE GATES. DAVID JOSEPH SMITH, London, and CHARLES TOWL, Forest Gate, Essex, England. Original application filed Feb. 3, 1916, Serial No. 76,031. Divided and this application filed Nov. 20, 1919. Serial No. 339,319. 1 Claim. (Cl. 114—119.)



Means for operating a door or the like, comprising a cylinder having a piston therein, a generator, for automatically producing pressure gases upon the introduction

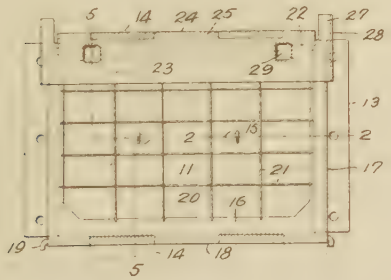
of water thereto, in communication with the cylinder, means for normally holding the door in an open position, said means being adapted to be actuated upon movement of the piston, to release the door, said door being moved to a closed position after the release of said holding means upon a continued operation of the piston.

1,416,071. CLOSURE OPERATOR. SAMUEL P. SMURR, Chicago, Ill., assignor to Variety Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 3, 1919. Serial No. 274,654. 12 Claims. (Cl. 189—57.)



1. In combination, a vertically movable member varying in weight throughout its various vertical positions, a spring having a varying expansive stress opposing the varying weight of said vertically movable member throughout its vertical movement, the varying expansive stress of said spring counterbalancing said vertically movable member throughout its vertical movement.

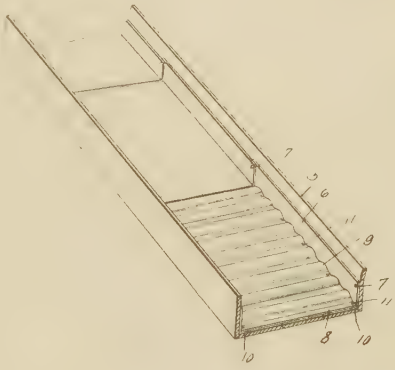
1,416,072. CARD HOLDER FOR RAILWAY CARS. ALBERT EDWARD SOPP, Montreal, Quebec, Canada. Filed Dec. 3, 1920. Serial No. 428,015. 7 Claims. (Cl. 40—14.)



7. A card holder comprising a base plate to be secured to the wall of a car, a front clamping plate hinged to the lower edge of said base plate, and a cover hinged to the upper edge of the base plate, and swingable to either side of the hinged connection, said cover being adapted to rest against the wall of the car when disposed upon one side of the hinged connection and to engage the upper edge of the clamping plate when disposed upon the opposite side of the hinged connection.

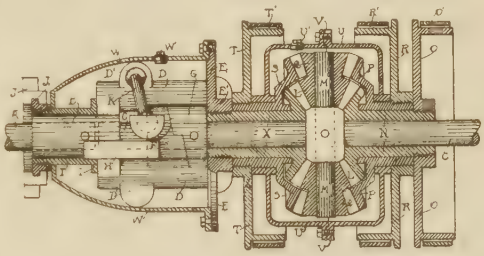
1,416,073. COAL CHUTE. HENRY STEINBACH, Scranton, Pa., assignor to John J. Steinbach, Scranton, Pa. Filed Nov. 5, 1919. Serial No. 335,967. 1 Claim. (Cl. 193—29.)

In a coal retarding attachment for chutes, plates having corrugations extending transversely, side plates having inturned lower edges forming flanges to which the first mentioned plates are secured, the said plates and side



plates being adapted to be secured in a chute at different pitches for offering resistance to the passage of material down the chute, according to the pitch of the chute.

1,416,074. TRANSMISSION CLUTCH AND GEAR. OLE O. STORLE, Tacoma, Wash. Filed Aug. 25, 1917. Serial No. 188,219. 3 Claims. (Cl. 74—34.)

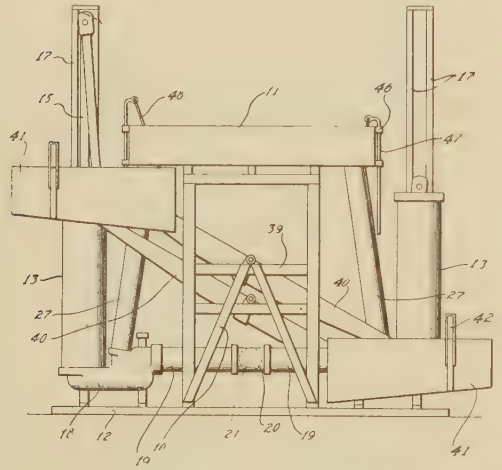


1. In a transmission gear and clutch, the combination with drive and transmission shafts, of a gear connected to the transmission shaft to rotate therewith and formed of inner and outer disposed gears, a drive gear sleeved upon the transmission shaft and meshing with the inner disposed gear of the shaft and connected with the drive shaft to be driven therefrom, variable speed gears for idle movement around the transmission shaft and meshing one with the inner and the other with the outer disposed gears of the transmission shaft, means for locking the respective variable speed gears against rotative movement relatively to the transmission shaft, a reversing gear meshing with the outer disposed gear of the transmission shaft and mounted for idle movement, means for locking said gear against idle movement to reverse the direction of rotation of the transmitting shaft when the variable speed gears are free for idle movement, and means for effecting locking connection between the transmission shaft drive gear and the drive shaft.

1,416,075. WATER-ELEVATING DEVICE. WILLIAM A. STUART, Tacoma, Wash. Filed Oct. 9, 1920. Serial No. 415,729. 3 Claims. (Cl. 103—67.)

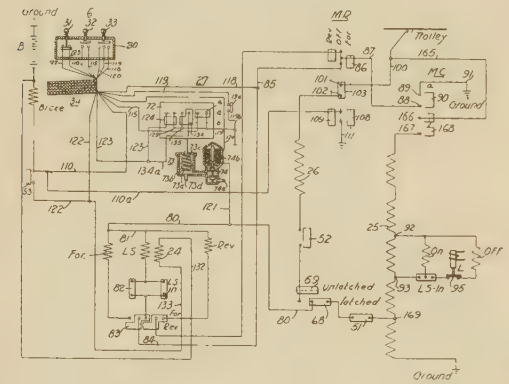
1. A device of the character described comprising an elevated tank provided with a water inlet and provided in its bottom with normally closed openings, a walking beam pivoted beneath said tank, upright cylinders at the ends of the tank, pistons within said cylinders, tanks carried by the ends of the walking beam and connected with said pistons, pipes leading into the bottom of said first named tank and connected with the lower ends of said cylinders, normally closed valves cutting off communication between said pipes and said cylinders, check

valved outlet pipes connected with said cylinders, and means operated by up and down movement of said mov-



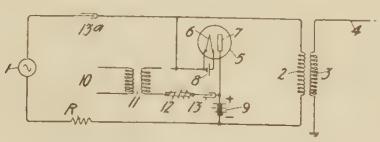
able tanks for uncovering said openings and opening said first named valve.

1,416,076. SYSTEM OF CONTROL. KARL A. SIMMON, Edgewood Park, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 13, 1920. Serial No. 358,550. 25 Claims. (Cl. 104—149.)



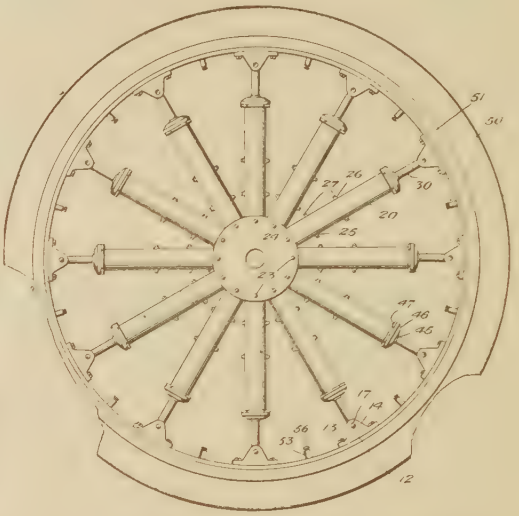
23. The combination with an electric vehicle, of external means for inaugurating movement of the vehicle, and means for then maintaining movement of the vehicle for a given distance.

1,416,077. SYSTEM FOR ELECTRICAL SIGNALING. DE WITT C. TANNER, Glen Ridge, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Mar. 8, 1919. Serial No. 281,459. 8 Claims. (Cl. 179—171.)



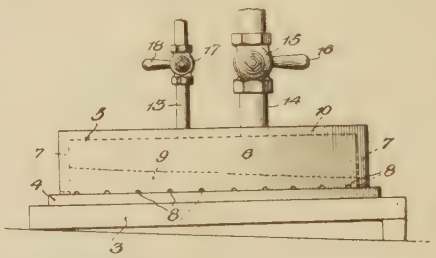
1. A source of carrier currents, two parallel paths connected to said source, one of said paths comprising an electron discharge device having a cathode and an anode, the other of said paths being closed and having associated therewith a translating device, and means connected to said cathode and anode for varying the impedance of said device in accordance with signals.

1,416,078. RESILIENT WHEEL. ACA COLUMBUS TAYLOR, Kellyville, Okla. Filed May 22, 1920. Serial No. 383,456. 2 Claims. (Cl. 152—47.)



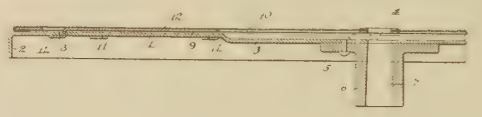
1. In a resilient wheel, a rim, spokes pivotally connected with the rim, a hub, tubular members pivotally connected with the hub, the spokes and tubular members having telescoping connection, sleeves rigidly mounted within each tubular member at spaced intervals, each spoke being provided with shoulders at spaced intervals and with a plurality of springs one of which is normally in engagement with one of the shoulders, means engaging one end of each of the remaining springs, the remaining shoulders of the spokes successively compressing the springs last named, by engagement with said means.

1,416,079. SHINGLE MOLD. JOHN M. VAN HOUTEN, Beacon, N. Y. Filed Apr. 2, 1920. Serial No. 370,796. 5 Claims. (Cl. 25—42.)



1. A bottomless molding dome, having an air inlet, a material inlet, and a plurality of water outlets adjacent to the open bottom.

1,416,080. TURNTABLE. ANTHONY VASSELLI, Newark, N. J., assignor, by mesne assignments, to Harriman National Bank of the City of New York, trustee. Filed June 7, 1919. Serial No. 302,436. 6 Claims. (Cl. 274—39.)



1. A turn-table, comprising a base plate, a disc carried by the plate, a yielding material interposed between the base plate and disc, and means for holding the disc to the base plate.

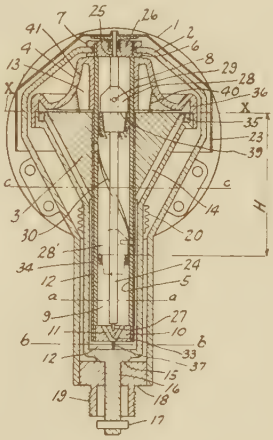
1,416,081. BRUSH HANDLE. JAMES A. WHITE, Galt, Ontario, Canada. Filed June 11, 1920. Serial No. 388,175. 2 Claims. (Cl. 306—4.)

1. A brush handle comprising a bar provided with means for securing it to a short brush handle; a supplemental handle pivotally connected to one end of the bar; a divided clamp embracing the supplemental handle; the parts of which are provided with apertured lugs; a U-shaped link pivotally connected with the bar, its legs being threaded and extending through the apertures in the lugs of the divided clamp; and nuts screwed on said legs on each side of said lugs.

1,416,082. ROTARY SPEED INDICATOR. EMERY J. WILSON, Cleveland, Ohio. Filed Dec. 21, 1916. Serial No. 138,212. 18 Claims. (Cl. 264—19.)

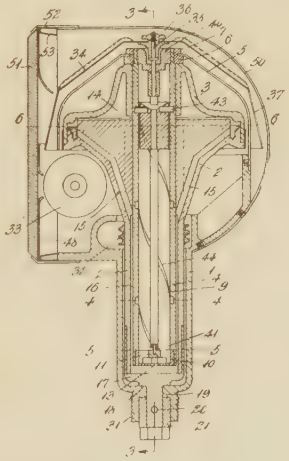
9. In speed indicators, wherein a confined liquid mass is subjected to centrifugal action to produce characteristics of a vortex, wherein the carrier for the mass is formed with connected chambers to receive the mass and to provide a plurality of spaced-apart free liquid surfaces of and in permanent connection through the body of the mass, and wherein the indications are made responsive to the changes in position of one of such free surfaces, means operative to establish definite positions of equilibrium of the mass at definite speeds of rotation in presence of mass-increment flow produced by variations in speed, said means including a carrier face having a cross-sectional contour of mathematically-derived characteristic such as to cause the volumetric displacement represented by the movement of one of the free surfaces of the liquid mass in moving from one position of mass equilibrium to another to be equal for equal increments of speed.

1,416,083. ROTARY SPEED INDICATOR. EMERY J. WILSON, Cleveland, Ohio. Filed May 29, 1917. Serial No. 171,725. 16 Claims. (Cl. 264—19.)



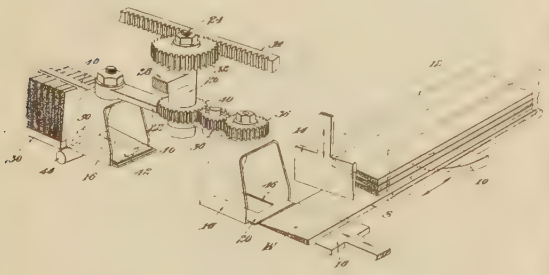
1. In a speed indicator, a rotatable liquid receptacle having an axial chamber, a discharge chamber, an annular groove in said discharge chamber, and one or more passages uniting the axial chamber with the groove, said passages entering the groove at points below the normal level of the liquid when the instrument is at rest.

1,416,084. ROTARY SPEED INDICATOR. EMERY J. WILSON, Cleveland, Ohio. Filed June 24, 1918. Serial No. 241,720. 29 Claims. (Cl. 264—19.)



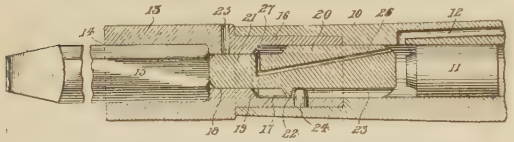
1. A speed indicator having inner and outer communicating chambers for receiving a liquid, the outer chamber constituting a discharge chamber into which the liquid flows upon rotation, said discharge chamber having a portion thereof bounded by two surfaces traversed by the liquid surface during variations in speed of rotation, one of said surfaces being an assumed cylindrical surface, the surface of the inner chamber being also assumed, the other surface of the outer chamber being calculated with reference to said assumed surfaces in such manner that equal variations in speed throughout a given range produce equal variations in liquid level in the inner chamber.

1,416,085. METHOD OF FORMING STACKS OF WEDGE LIFTS. ERASTUS E. WINKLEY, Lynn, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Original application filed Jan. 22, 1917, Serial No. 143,738. Patent No. 1,352,492, dated Sept. 14, 1920. Divided and this application filed June 23, 1920. Serial No. 391,237. 8 Claims. (Cl. 12—147.)



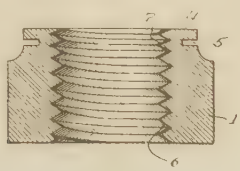
1. The method of forming a stack of wedge articles which includes feeding a succession of wedge articles in similar positions, successively transferring said wedge articles to another position and turning the alternate articles end-for-end in substantially their own planes during the transferral, and stacking the transferred articles with their thick and thin ends alternating.

1,416,086. AIR HAMMER. JOHN W. WOLFE, Washington, D. C., assignor of one-third to John T. Scott, Washington, D. C. Filed Nov. 12, 1920. Serial No. 423,686. 4 Claims. (Cl. 121—32.)



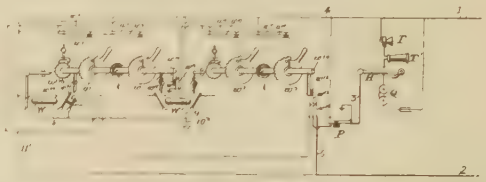
1. A tool socket for air hammers comprising a sleeve having one end arranged to engage an air hammer detachably and the other end arranged to engage a tool loosely, a plunger slidably mounted in the air hammer engaging end of the sleeve and adapted to be struck by the piston of the air hammer, and means to limit the movement of the plunger, said sleeve having a lateral port therein opening outwardly to the atmosphere and the plunger having an air relief vent extending from its inner end and opening laterally in registry with the sleeve port upon the plunger reaching the forward limit of its movement.

1,416,087. NUT BLANK AND LOCKING NUT. IRVING C. WOODWARD, Syracuse, N. Y., assignor to Eugene A. Woodward, Iron Mountain, Mich. Filed Jan. 13, 1921. Serial No. 436,861. 3 Claims. (Cl. 151—21.)



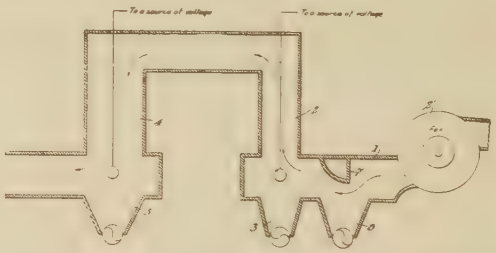
1. A nut with a thread having two groups of turns of substantially equal pitch joined together by a group of turns having a different pitch.

1,416,088. TELEPHONE-EXCHANGE SYSTEM. EDWARD E. CLEMENT, Washington, D. C., assignor, by mesne assignments, to James R. Garfield, trustee, Cleveland, Ohio. Filed Mar. 14, 1905. Serial No. 250,055. 52 Claims. (Cl. 179—27.)



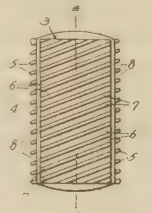
2. Connecting means for telephone systems consisting of answering terminals and a series of switching or connecting terminals, a certain number of subscribers' lines being connected with their answering terminals in one group, and a certain number of lines being connected to the switching or connecting terminals in one group, of trunk lines leading from each group of answering terminals to the various groups of switching terminals, automatic switching apparatus connected with each trunk-line and adapted to co-operate with one group of switching or connecting terminals, together with means under the control of an operator to connect an answering terminal in her group with a trunk leading to any desired switching apparatus and group of connecting terminals, and further means whereby said switching apparatus may be controlled over the trunk by the calling subscriber, substantially as described.

1,416,089. ELECTRIC HIGH-VELOCITY CLASSIFIER. CARL WILLIAM JULIUS HEDBERG, New Britain, Conn., assignor to Research Corporation, New York, N. Y., a Corporation of New York. Filed Nov. 26, 1919. Serial No. 340,809. 4 Claims. (Cl. 83—49.)



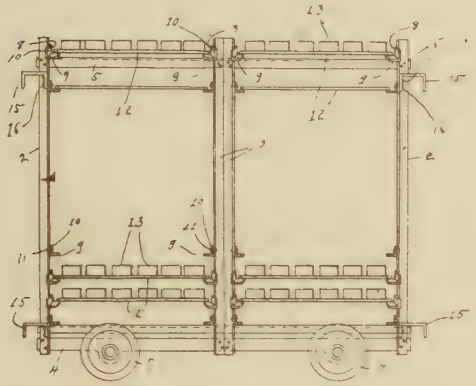
1. The process of separating particles normally suspended in a gas including impalpable material according to size from a gas in which they are suspended, which consists in passing the gas into and through an electric field at such high velocity that the kinetic energy of the relatively larger articles will resist the electric precipitating action while the finer particles are precipitated and then collecting separately the larger particles.

1,416,090. SAFETY RAZOR. WILLIAM J. KLAUBERG, New York, N. Y.; Charles J. Klauberg and William W. Klauberg, executors of said William J. Klauberg, deceased, assignors to C. Klauberg & Bros. Inc., New York, N. Y., a Corporation of New York. Filed Mar. 17, 1920. Serial No. 366,649. 6 Claims. (Cl. 30—12.)



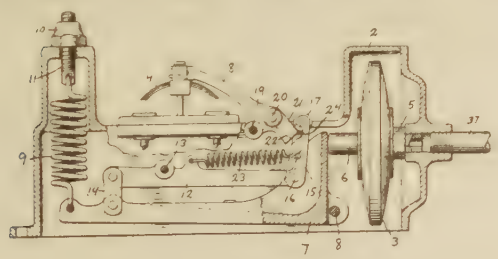
1. A safety razor comprising a bed plate and a clamping plate, the outer surface of the clamping plate being provided with parallel grooves and ribs positioned to engage the face of the user to guide the razor over the face.

1,416,091. DRIER CAR. CHARLES H. KLEIN, Chaska, Minn. Filed July 21, 1919. Serial No. 312,147. 2 Claims. (Cl. 105—373.)



1. A drier car, comprising, in combination, a skeleton car frame having upright supports, substantially horizontal and parallel shelf bars mounted upon said supports upon which brick pallets are adapted to slide, said shelf bars being composed of angle members, each of said members being arranged with one side extending upwardly and its remaining lower side extending inwardly and each member of a pair of the ends of said shelf bars being split longitudinally along a line between its upright and lower sides, said pair having their upright portions deflected outwardly and their lower split portions deflected downwardly to form guiding surfaces for directing the pallets longitudinally on and between said bars.

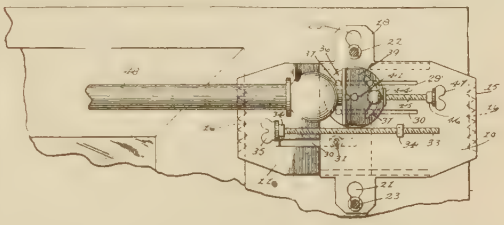
1,416,092. CONTROLLING APPARATUS. GEORGE A. KNAAK, Milwaukee, Wis. Filed Dec. 1, 1919. Serial No. 341,702. 3 Claims. (Cl. 230—24.)



1. In controlling apparatus, the combination with a fluid-pressure condition responsive element for opening an electric switch, of an electric switch, means for closing the switch, means for positively retaining the switch opened or closed regardless of the fluid-pressure condition responsive element except at a predetermined pressure, and a pressure relief valve adapted to be actuated only in unison with the switch.

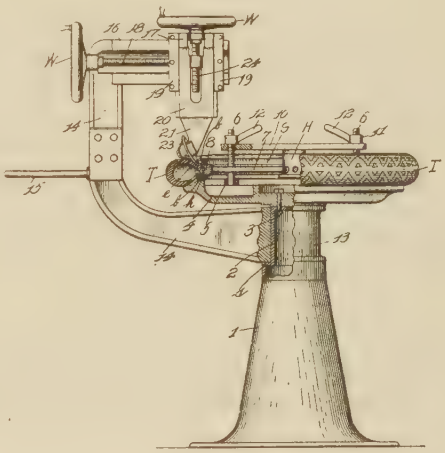
1,416,093. COMBINATION SHADE AND CURTAIN HANGER. CHESTER KONDRACKI, Elwood City, Pa. Filed Feb. 26, 1921. Serial No. 448,057. 1 Claim. (Cl. 156—24.)

In a mounting for curtain poles and shade rollers, a pair of slotted adjustable members, flanges on one of said members to guide the other, teeth at the outer flanged and turned ends of each of said members, pins sliding in the slots of said members for limiting their relative movements, guiding cleats on both members, a screw held in said cleats for adjusting the said members against and from each other, perforated projections at the upper and lower edge of one of said members, a disc having a segmental slot, pins on said disc for slidably holding the same against one of said members, an outwardly turned flange on said disc, a screw engaging said flange and held on one of said members for allowing an adjustment and locking of said disc relative to one of said members, a curtain pole holder having shanks adapted to be passed through the perforations of said projections, beads on

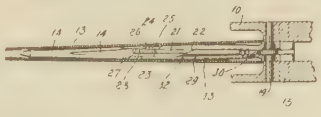


the ends of the shanks of said pole holder for holding said shanks against falling off said members under the weight of a curtain pole placed on said holders, and a shade roller supporting bracket, a pin traveling in the segmental slot of said disc for adjustably securing said shade roller supporting bracket to one of said members.

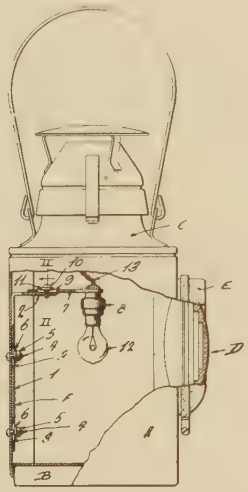
1,416,094. TIRE-SETTING MACHINE. THOMAS KRAUSKA, St. Louis, Mo., assignor to Alastic Tire Cushion Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 5, 1920. Serial No. 371,308. 3 Claims. (Cl. 157—6.)



1. In a tire-setting machine, a bell-shaped tire engaging roller, the outer surface of which is concave, and the inner surface of which is dished, means for causing said roller to traverse circularly the periphery of the tire, the axis of the roller being inclined to the plane of traverse, and its plane of rotation intersecting the plane of traverse along a line inclined to the tangent to the arc of the circular traverse of the roller.

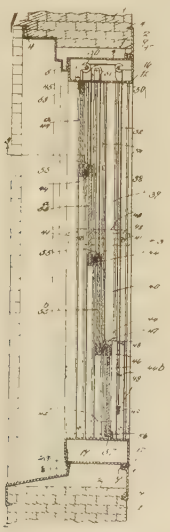
1,416,095. LOOM SHUTTLE. STANLEY KRAWCZYK and ADOLF KÖNIG, Plainfield, N. J. Filed May 3, 1921. Serial No. 466,544. 7 Claims. (Cl. 139—27.)

2. The combination with a shuttle body having an opening, of a split spindle pivoted thereto adapted to receive a cop, a lever pivoted to said body, and means wholly disposed within said spindle and connected to said lever for causing an expansion of said split spindle when the latter is swung into said opening and causing a contraction thereof when said spindle is raised out of said opening.

1,416,096. ELECTRIC LAMP. LOUIS C. KUEHNER, St. Louis, Mo., assignor to Handlan-Buck Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed June 23, 1920. Serial No. 391,172. 2 Claims. (Cl. 240—44.)



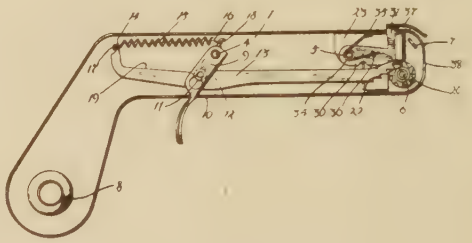
2. A lamp having a casing, a lens, a lamp socket adapted to receive a bulb, and a lamp-supporting device whereby said lamp socket may be adjusted relative to said lens, said lamp-supporting device comprising an upright supporting member adjustable vertically relative to said lens, a supporting arm extending from said upright supporting member, said supporting arm having an extension secured to and supporting said lamp socket, said extension being adjustable in a straight line relative to said arm so as to move said lamp socket toward and away from said lens, said extension being also adjustable horizontally in an arc of a circle, and a screw whereby said extension is secured to said supporting arm.

1,416,097. INTERLOCKING SWINGING SASH AND CASEMENT AND LOCK THEREFOR. GEORGE W. LANCASTER, Richmond, Va., assignor to Perfected Window Company, (Incorporated,) Richmond, Va. Filed Jan. 5, 1921. Serial No. 435,234. 8 Claims. (Cl. 189—66.)



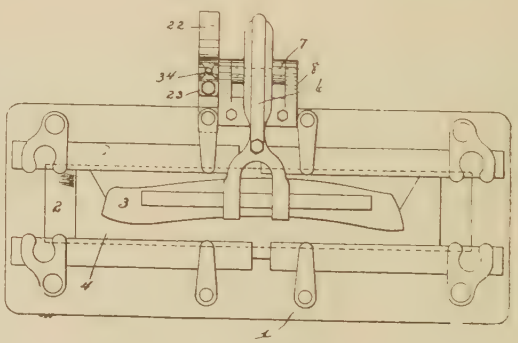
1. In a window construction, a window casement, a swinging closure hingedly mounted therein, the wall of the casement having channels, the inner wall of the swinging closure having marginal flanges to engage said channels, and means for locking the closure and drawing the marginal flanges into interlocking engagement with the channel to insure precluding the air or wind.

1,416,098. GAS LIGHTER. CHARLES F. LARSEN, Chicago, Ill. Filed Sept. 2, 1921. Serial No. 497,820. 4 Claims. (Cl. 67—6.1.)



3. In a device of the character described, a casing, a striker rotatably supported within the casing, means for actuating the striker at will, a carrying member supported within the casing and formed to provide a socket positioned with an open end thereof adjacent to the peripheral wall of the striker, a pyrophoric element projected into the socket and arranged to rest upon the peripheral wall of the striker, an arm pivotally supported at one end within the casing and provided with an extension arranged to protrude exteriorly of the casing, said extension being formed with an integral finger arranged to enter the socket and to rest upon the pyrophoric element, and spring means arranged to re-act against said arm to cause said finger to constantly press said pyrophoric element against the striker.

1,416,099. FOLDING MACHINE. ROY S. LATIMER, Troy, N. Y., assignor to Thomas H. Latimer, Saratoga Springs, N. Y. Filed Apr. 12, 1917. Serial No. 161,598. 6 Claims. (Cl. 219—20.)

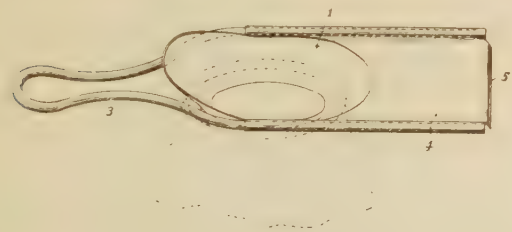


1. In a machine of the class described and in combination, a heater; means for transmitting to said heater a continuous supply of heat units; shunt means with respect to said means for supplying heat units, for supplying additional heat units to more or less of said heater: and automatic means for intermittently controlling the supply through said shunt means in the operation of the machine.

1,416,100. MIXING-DEVICE AGITATOR. HENRI G. LEVY, San Francisco, Calif. Filed Mar. 14, 1921. Serial No. 451,937. 6 Claims. (Cl. 259—134.)

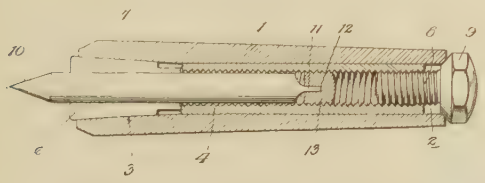
1. A mixing device comprising in combination a rotary mechanism and an agitator shaft connected at one end therewith, said shaft comprising a polygonal portion merging into a circular portion and a spherical member on the end of said shaft.

1,416,101. FRUIT FUNNEL. MARY L. LITTLE, Los Angeles, Calif. Filed Aug. 4, 1919. Serial No. 315,052. 1 Claim. (Cl. 226—30.)



In a filling funnel adapted to be placed over the mouth of a receptacle and tilted thereon, the combination of a funnel having a raised side thereon and a wire handle, and a tray for the funnel extending outwardly from the rim thereof, and having upraised sides, the wire handle having extended members forming a part of the upraised edge structure of said tray.

1,416,102. LATHE CENTER. RAYMOND F. LUSK, Columbus Grove, Ohio, assignor of one-half to Charles A. Gettman, Columbus Grove, Ohio. Filed Oct. 14, 1920. Serial No. 416,829. 3 Claims. (Cl. 82—33.)

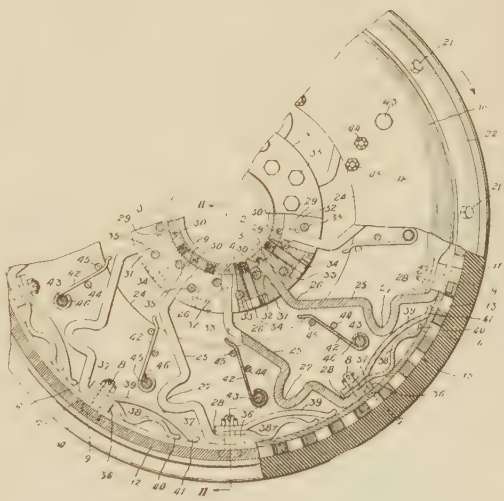


1. The combination of an outer casing, a gripping sleeve disposed axially in said casing and internally threaded at its inner end, a point held by and within said sleeve, and an adjusting screw inserted through the end of the casing to engage the inner end of the sleeve and secure the same.

1,416,103. METATARSAL-ARCH SUPPORT. JOHN J. MCCARTIN, Rockville, Conn. Filed May 16, 1921. Serial No. 469,992. 2 Claims. (Cl. 36—71.)

1. A device of the class described comprising an insole, a rigid convex plate shaped to conform to and restore the metatarsal arch, said plate including an integral tongue extending inwardly beneath its body portion and provided with a slot, a retaining bolt passing through said slot and insole, and a nut on the bolt for holding the plate in various adjusted positions.

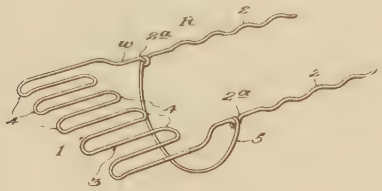
1,416,104. RESILIENT WHEEL. JAMES R. MCFALL, Cleveland, Ohio. Filed June 19, 1919. Serial No. 305,298. 13 Claims. (Cl. 152—28.)



1. A resilient wheel comprising a hub, a rim, resilient spokes attached to both hub and rim at points in a line at an angle to any particular radial plane, and such that the points of attachment of every spoke with the rim is ahead of its point of attachment to the hub with reference to the intended direction of rolling movement of the wheel, the ends of said spokes which are attached to said rim being furthermore bent to lie along a measure of the inner annular surface thereof continuing ahead in the same general direction as the inclination of said spokes. springs attached to said rim and adapted to be engaged

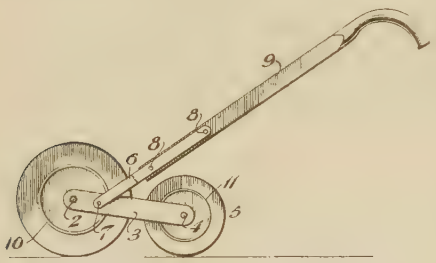
each by one of said spokes when the latter is partially deflected, and other springs adapted to be engaged each by one of said spokes when the latter is still further deflected.

1,416,105. WASTE RETAINER FOR JOURNAL BOXES. ROBERT GILMORE MCKEE, Peru, Ind. Filed Aug. 17, 1921. Serial No. 492,998. 1 Claim. (Cl. 64—64.)



A waste retainer for journal boxes including in combination with the journal box and the journal end of the axle therein, a horizontally disposed waste retaining frame of skeleton formation adapted to be located between the end of the axle and the opening in the journal box and having rearwardly extending arms, an anchoring strap depending from said arms and adapted to be positioned beneath the journal end of the axle to prevent the said retaining frame from working upwardly.

1,416,106. GRASS-EDGE TRIMMER. ALLEN MCWHORTER, Riverton, N. J. Filed Dec. 17, 1920. Serial No. 431,344. 4 Claims. (Cl. 97—28.)



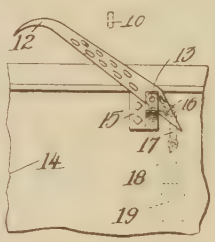
1. A grass edge trimmer consisting of a rotatable grass shearing blade, a frame on which the same is mounted, a handle connected with said frame, said blade having one face formed with a bevel extending to its periphery thereof and the opposite face flat to said periphery, said periphery being adapted to shear the grass overhanging the side of a walk and to form a groove between the walk and sod, and a trailer mounted on said frame rearward of the shearing blade in the same longitudinal direction thereof and consisting of a body having a comparatively narrow periphery adapted to enter and run in said groove and serve to guide said shearing blade true and steady in its work.

1,416,107. GAME BOARD. THOMAS MAHER, Mount Clemens, Mich. Filed Feb. 24, 1919. Serial No. 278,666. 1 Claim. (Cl. 46—61.)

A game board of rectangular form in plan view with a plane, unobstructed surface from end to end and provided with transverse rows of cup-shaped pockets in said surface adjacent one end of the board, the pockets of each row being in staggered relation to the pockets of adjacent rows, and each pocket being of semi-circular form in cross-section to receive balls rolled over said surface and to hold said balls with a major portion of the balls projecting above the plane of said surface of the board, marginal side and end walls for the board forming cushions, having an opening at each corner of the board and openings intermediate the ends of the side walls,

pockets for all of said openings in such marginal walls, and balls to be played upon the surface of the board into the pockets in said surface.

1,416,108. TRAIN-STOPPING DEVICE. CHARLES W. MARDEN, Portsmouth, N. H. Filed Mar. 13, 1920. Serial No. 365,594. 2 Claims. (Cl. 246—200.)



1. In a train stopping device, a contact arm actuated by a semaphore signal in danger position, said arm being substantially kite-shaped in plan and having a convex edge engaging said semaphore signal.

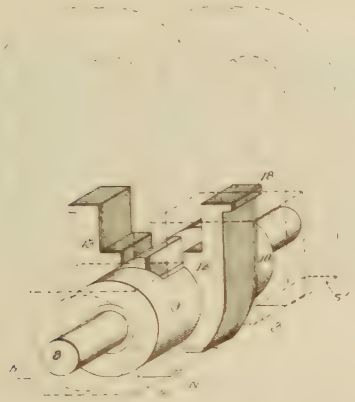
1,416,109. LENS. HARRY H. MARRIOTT, Kansas City, Mo. Filed June 11, 1920. Serial No. 388,392. 1 Claim. (Cl. 240—106.)

A sign-forming element comprising a body having a reduced neck defining a shoulder, the neck being provided with an outstanding crescent-shaped fin disposed parallel to the shoulder, and being equipped with outstanding lugs disposed approximately opposite to the ends of the fin, those surfaces of the lugs which are remote from the shoulder slanting toward the neck.

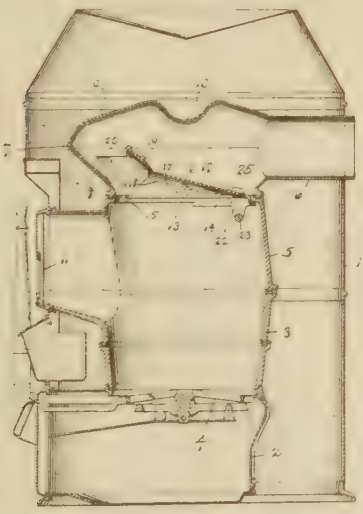
1,416,110. APPARATUS FOR GENERATING ELECTRIC CURRENTS. CHARLES THOMAS MASON, Sumter, S. C., assignor to Splitdorf Electrical Company, Newark, N. J., a Corporation of New Jersey. Filed June 8, 1918. Serial No. 238,934. 14 Claims. (Cl. 171—209.)

5. In a magneto, a base, a pair of apertured blocks supported thereby, a pair of pole pieces spaced apart non-

magnetic rivets passing through said pole pieces and embedded in said blocks, a rotor having a shaft and magnetizable portions in said apertured blocks adapted to receive flux from said blocks regardless of the position of said rotor and laterally adjustable bearings for the rotor carried by said blocks.



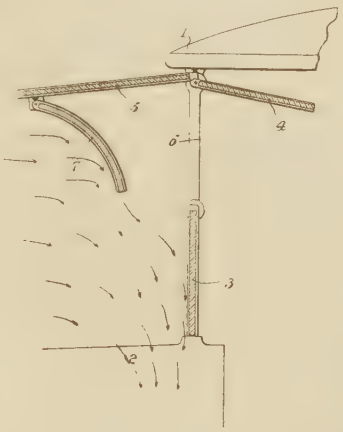
1,416,111. FURNACE. WILLIAM L. MERSFELDER, Detroit, Mich. Filed Oct. 15, 1921. Serial No. 508,042. 8 Claims. (Cl. 126—102.)



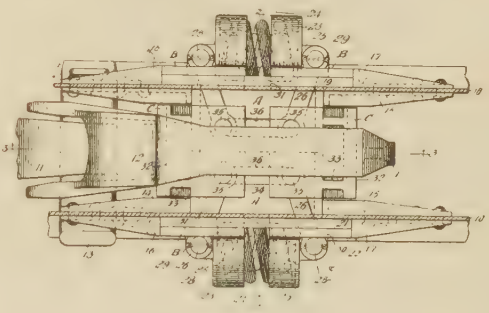
1. In a furnace, a radiator constituting the upper portion thereof, a smoke pipe connecting thereto, and a conoidal deflector mounted in the radiator to partially close the lower end thereof, the lower surface of the deflector being concave and inclining longitudinally upwardly away from the smoke pipe to cause hot gases to sweep against the top of the radiator.

1,416,112. WIND AND RAIN SHIELD. GEORGE F. MILES, New York, N. Y. Filed Oct. 28, 1920. Serial No. 420,084. 4 Claims. (Cl. 296—91.)

1. In a device of the character described, a transparent windshield including a lower section and a movable upper section arranged to project forwardly of the former, a deflector arranged in front of said lower section and suspended from and below the forward part of said upper section and inclining downwardly and rearwardly therefrom and toward said lower section and adjustable to terminate in a plane below and to the rear edge of the upper section and above and in front of the upper edge of said lower section to afford an open space for unobstructed vision.



1,416,113. RAILWAY FRICTION DRAFT RIGGING. WILLIAM H. MINER, Chazy, N. Y., and JOHN F. O'CONNOR, Chicago, Ill.; said O'Connor assignor to said Miner. Filed Dec. 22, 1919. Serial No. 346,653. 8 Claims. (Cl. 213—64.)

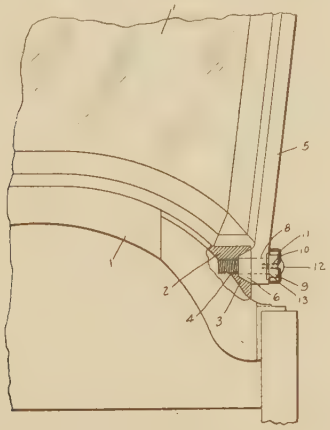


1. In a draft rigging, the combination with draft sills having stops thereon, a drawbar, and yoke-acting means; of stationary friction elements disposed outside of the draft sills; movable friction elements cooperable with said stationary friction elements; spring means located on the outer sides of the sills associated with said movable friction elements; and means actuated upon movement of the draw bar and yoke-acting means for moving said movable friction elements with respect to the stationary friction elements.

1,416,114. WINDSHIELD-SUPPORTING BRACKET. OTTO F. MÖLLER, Indianapolis, Ind., assignor to National Motor Car & Vehicle Corporation, Indianapolis, Ind., a Corporation of New York. Filed Apr. 24, 1920. Serial No. 376,352. 1 Claim. (Cl. 296—92.)

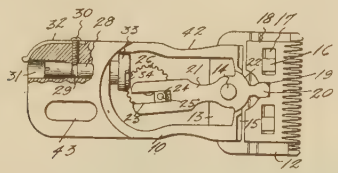
A supporting means comprising a bracket having a conical socket formed therein the inner end of which terminates in a threaded portion, a support, an integral cone shaped projection at the lower end of said support, said support and projection having an opening and a depression at the outer end of said opening, a washer fitting in said depression, a screw passing through said opening and washer and engaging the threaded portion of said socket, the head of said screw projecting beyond the outer face of said support, and having a thread-

opening, a cup shaped cover fitting over the projecting head of said screw and having its flange edge resting against the face of said support, and a second screw pass-



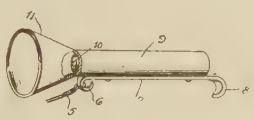
ing centrally through said cover and into the threaded opening in said screw for securing the cover member in position.

1,416,115. HAIR CLIPPER. COLLIER MONROE, Waco, Tex. Filed May 16, 1921. Serial No. 469,842. 3 Claims. (Cl. 30—1.)



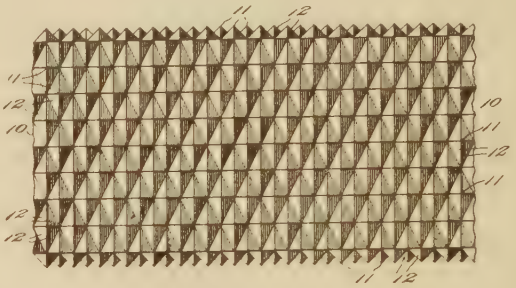
1. In a hair clipping device, a casing, a cutter blade carried by the forward end of the casing, a reciprocating cutter blade coacting with the first named cutter blade, a gear arranged within the casing, a lever pivotally mounted within the casing to swing in a plane approximately parallel with the plane of rotation of the gear, said lever having its forward end connected with the reciprocating cutter and its rear end extending over one side of the gear and terminating at a point inwardly of the rear portion of the gear, means connecting the lever and gear, a gear-disk mounted within the casing rearwardly of the gear and having its plane of rotation at substantially a right angle to the plane of rotation of said gear, said gear-disk being provided upon its forward side with a curved drive rib for engaging the teeth of said gear, said gear-disk extending laterally beyond the gear and being free from engagement with the rear end of said lever, and a shaft carrying the gear-disk and journaled in the rear portion of the casing.

1,416,116. TELEPHONE ATTACHMENT FOR MOTOR VEHICLES. JOHN ARTHUR MOREN, Webster, Wis. Filed Dec. 27, 1920. Serial No. 433,201. 1 Claim. (Cl. 179—29.)



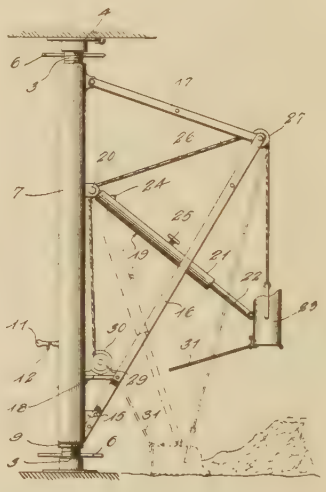
In combination with a portable telephone set for tapping into a telephone line, lead wires one constituting a ground wire and the other a line connecting wire, a tube provided at one end with a pole centering funnel, and a longitudnally extending contact strip secured to the tube at one side thereof, said strip being provided at one end with an eye accommodating the line connecting wire and at its opposite end with a hook to engage over a line wire.

1,416,117. REENFORCING BAR FOR CEMENTITIOUS MATERIALS. HERBERT H. MUIR, Western Springs, Ill. Filed May 17, 1919. Serial No. 297,791. 1 Claim. (Cl. 72—111.)



A reinforcement for cementitious material comprising a bar having its exterior surface composed of interfitting pyramidal projections with faces of equal area adapted to offer uniform resistance to displacement in all directions, the base of each interfitting pyramidal projection being of substantially diamond shape and having each of its edges coincident with and common to the corresponding contiguous edge of the base of the adjacent interfitting pyramidal projection, thereby, forming transverse and longitudinal rows of staggered projections adapted to eliminate transversely extending weakening grooves and recesses.

1,416,118. LOADER. GUSTAV CHRISTIAN NUESSE, Hibbing, Minn. Filed Apr. 25, 1921. Serial No. 464,071. 3 Claims. (Cl. 214—132.)

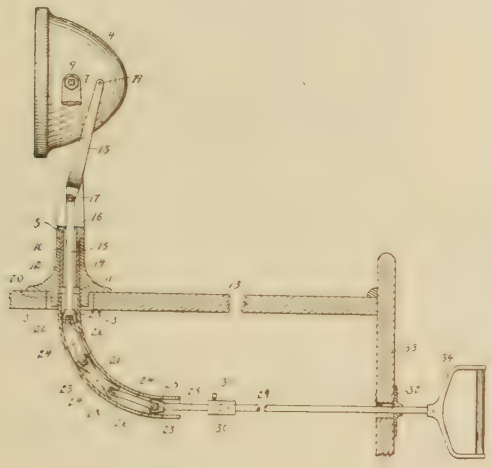


1. A device of the class described comprising a vertical standard having clamping screws at its upper and lower ends, a vertical sleeve rotatably surrounding said standard, a handle extending from said sleeve for turning the same, a load-raising boom pivoted to said sleeve, a frame structure supported by said sleeve and carrying cable guiding means, a hoisting cable for said boom trained over said cable guiding means, a motor support carried by said frame structure and sleeve, a motor mounted on said support, and a motor driven drum upon which said hoisting cable is wound.

1,416,119. DIRIGIBLE LIGHT PROJECTOR. MALCOLM P. NICHOLS, New Haven, Conn. Filed Jan. 2, 1920. Serial No. 348,801. 3 Claims. (Cl. 240—7.)

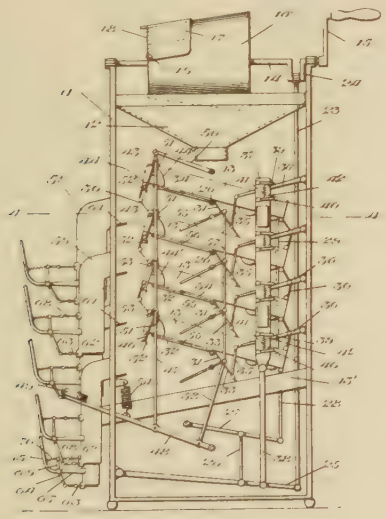
1. In a dirigible light-projector, the combination with the head thereof, of mountings for the said head designed

to permit the same to swing in diverse planes, a rotatable and reciprocal controller, a rotary and reciprocal flexible shaft connecting the said controller and the said head and



whose opposite ends are rigidly supported for rotation and reciprocation in divergent planes, whereby the movements of the controller are transmitted to the head and means for preventing the buckling of the flexible-shaft.

1,416,120. COIN SORTER. WILLIAM L. PAUL, Beaufort, N. C. Filed Feb. 19, 1921. Serial No. 446,337. 21 Claims. (Cl. 133—8.)



1. A sorter comprising a rocking tray having sorting openings at opposite ends, and means operable for lifting articles out of said openings at each end of the tray when it is in raised position.

1,416,121. PRIMER FOR SMALL-ARMS AMMUNITION. HARLEY T. PECK, Lebanon, Ohio, assignor to The Peters Cartridge Company, Cincinnati, Ohio, a Corporation of Ohio. Filed July 20, 1921. Serial No. 486,223. 8 Claims. (Cl. 52—4.)

4. A priming composition containing trinitro-resorcinol, a sulpho-cyanate, potassium chlorate and normal lead trinitro-resorcinol.

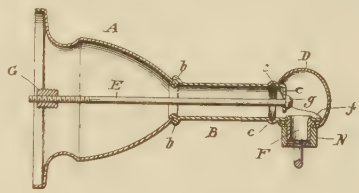
1,416,122. PRIMER FOR SMALL-ARMS AMMUNITION. HARLEY T. PECK, Lebanon, Ohio, assignor to The Peters Cartridge Company, Cincinnati, Ohio, a Corporation of Ohio. Filed July 20, 1921. Serial No. 486,224. 5 Claims. (Cl. 52—4.)

1. A priming composition containing tri-nitro-resorcinol, a sulpho-cyanate, an oxidizing agent and di-plumbic di-tri-nitro-resorcinol.

1,416,123. PRIMER FOR SMALL-ARMS AMMUNITION. HARLEY T. PECK, Lebanon, Ohio, assignor to The Peters Cartridge Company, Cincinnati, Ohio, a Corporation of Ohio. Filed July 20, 1921. Serial No. 486,225. 4 Claims. (Cl. 52—3.)

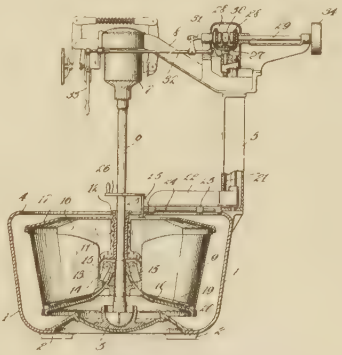
1. A priming composition containing tri-nitro-resorcinol, sulpho-cyanate, an oxidizing agent and mercury fulminate.

1,416,124. ELECTRIC-LIGHT FIXTURE. PAUL J. PFEIFER, Cleveland, Ohio, assignor to The Virden Company, Cleveland, Ohio. Filed July 11, 1921. Serial No. 483,952. 7 Claims. (Cl. 240—73.)



1. An electric light bracket comprising a hollow arm formed at its outer end with a bead, a nipple carrying extension and an inwardly extending lug engaging a fastening rod; and a cap seated against said bead and concealing said lug.

1,416,125. CENTRIFUGAL EXTRACTOR. SYDNEY PRESTWICH, Wilmington, Del., assignor to The American Laundry Machinery Company, Norwood, Ohio, a Corporation of Ohio. Filed Nov. 6, 1919. Serial No. 336,198. 13 Claims. (Cl. 210—74.)

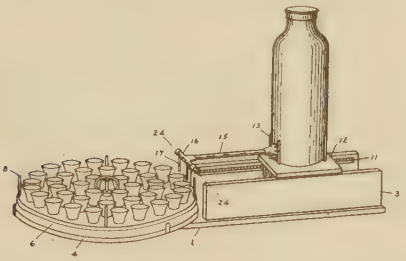


1. An extractor, comprising a frame including a stationary curb, and a rotating basket therein, said basket including a series of individual work holding receptacles movable as a unit to a position outside of said curb, and each of said receptacles being movable outwardly relative to the axis of rotation to unloading position.

1,416,126. CHURCH COMMUNION TRAY AND FILLING DEVICE. WILLIAM J. RAINEY, Philadelphia, Pa. Filed Nov. 12, 1919. Serial No. 337,580. 2 Claims. (Cl. 226—94.)

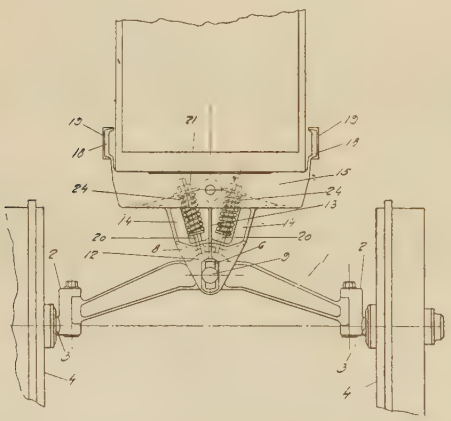
1. A church communion tray and filling device comprising a base, a tray adapted to be placed upon a portion

of the base, said base having another portion extending beyond the said portion carrying the tray, panels secured in a vertical position upon the last mentioned portion of the base and forming supports extending in parallel relation to each other, a carriage slidably mounted upon the said panels, a container adapted to rest upon the upper



surface of the carriage and freely removable therefrom, an outlet pipe extending from the side wall of the container and projecting over the edge of the carriage and over the tray, a valve upon the said outlet pipe and means upon the carriage for engaging the container and holding it in alignment with the tray.

1,416,127. TRACTOR. ALFRED M. SCHLAGEL, Montgomery County, near Dayton, Ohio, assignor to Rial T. Parrish, Dayton, Ohio. Filed May 9, 1921. Serial No. 467,889. 3 Claims. (Cl. 280—112.)

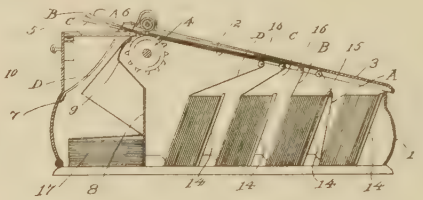


1. In a device of the type described, the combination with an axle, of a supporting bracket vertically movable in proximity to the middle portion of said axle, a segmental projection on the top middle portion of said axle, and resilient means resting upon the periphery of said segmental projection and movable laterally over it, to support said bracket.

1,416,128. PROCESS OF TREATING NUT KERNELS TO PRODUCE FOOD INGREDIENTS. HOWARD R. SCOTT and LILLIAN E. SCOTT, San Jose, Calif. Filed July 1, 1920. Serial No. 393,381. 1 Claim. (Cl. 99—11.)

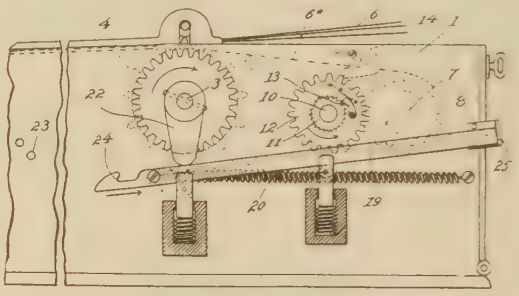
The herein described process for treating prune, peach and apricot kernels to realize a food ingredient, which consists in first subjecting the kernels to the presence of water to effect the decomposition of the amygdalin content by the action of the existing ferment emulsin, removing by filtration the benzaldehyde and hydrocyanic acid products which are present in the water solution, distilling the filtrate separately to recover the benzaldehyde and hydrocyanic acid products and washing the residue of wet kernel meal to remove the soluble products remaining from the first treatment.

1,416,129. AUTOGRAPHIC REGISTER. JOHN Q. SHERMAN, Dayton, Ohio. Filed Apr. 10, 1919. Serial No. 289,049. 3 Claims. (Cl. 281—14.)



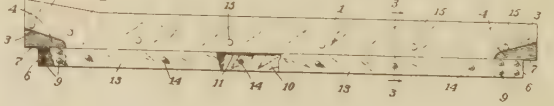
1. In an autographic register, a means for taking a record of the entries made on the duplicate strips thereof, upon a strip of paper folded in reverse folds of sections corresponding to the sections of the duplicate strips comprising a feeding device and a receptacle in the casing provided with a constricted mouth to receive the said strip, and of a size to permit it to fall naturally into a bundle, of the original form.

1,416,130. AUTOGRAPHIC REGISTER. JOHN Q. SHERMAN, Dayton, Ohio. Filed May 10, 1919. Serial No. 296,099. 9 Claims. (Cl. 282—16.)



1. In an autographic register, the combination of a feeding device for feeding a plurality of strips of paper, including a record strip to be retained in the machine simultaneously in one direction, a means for positively accumulating the record strip and an operating device therefor adapted to operate automatically during the stationary period of the feeding device.

1,416,131. CENTER REST BAR FOR BOILER GRATES. LEE HOWARD SIMMONS, Goldsboro, N. C., assignor to Simmons Manufacturing Company, Wilmington, N. C., a Corporation of North Carolina. Filed Mar. 21, 1921. Serial No. 454,135. 5 Claims. (Cl. 126—167.)

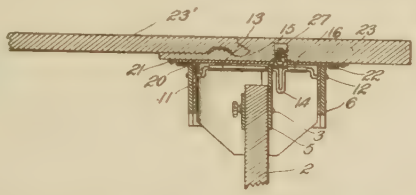


1. A center rest bar comprising a main body portion of cast iron and having its opposite ends undercut, steel supporting end members placed in the undercut portions, and steel reinforcing strips secured to the steel ends and to the outer opposite sides of the main body portion.

1,416,132. MOVABLE-CHAIR DESK. WILLIAM A. SMILEY, Kansas City, Mo., assignor to The Inner Braced Seating Company, Kansas City, Mo., a Corporation of Missouri. Filed Feb. 17, 1921. Serial No. 445,849. 4 Claims. (Cl. 45—110.)

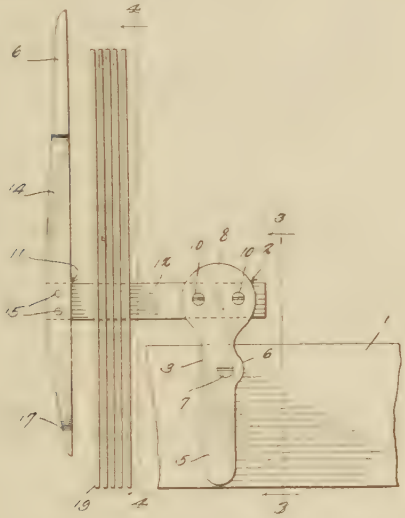
1. In a desk, a base having sides provided with slots curved in the same direction, a top support hinged thereto and having slots curved in the direction opposite to the

curvature of the first named slots, the slots in the base support having notches, and a rock shaft pivotally



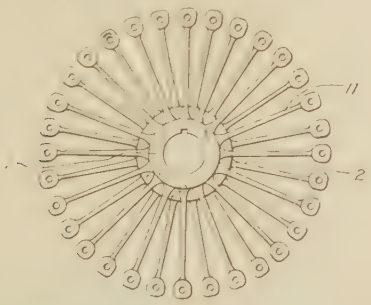
mounted on the base and having crank arms extending through the slots and engageable with the notches.

1,416,133. TAPE-SELVAGE STOP-MOTION STAND. JAMES ALEXANDER SORRELLS, Gainesville, Ga. Filed Jan. 10, 1922. Serial No. 528,196. 2 Claims. (Cl. 139—92.)



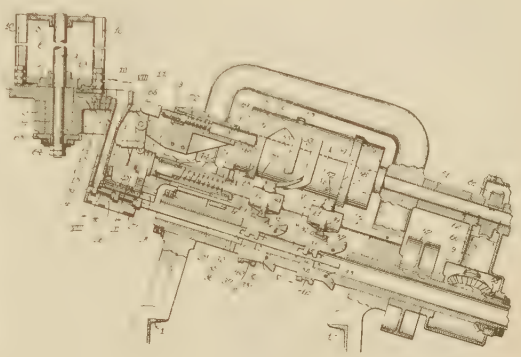
1. A device of the class described, comprising a pedestal, and a bracket including a shank and a head disposed transversely of the shank, the shank being assembled with the pedestal and constituting a drop wire carrier.

1,416,134. FLEXIBLE COUPLING. CLARENCE W. SPICER, Plainfield, N. J., assignor to Spicer Mfg. Corporation, South Plainfield, N. J., a Corporation of Virginia. Filed Jan. 5, 1921. Serial No. 435,173. 6 Claims. (Cl. 64—96.)



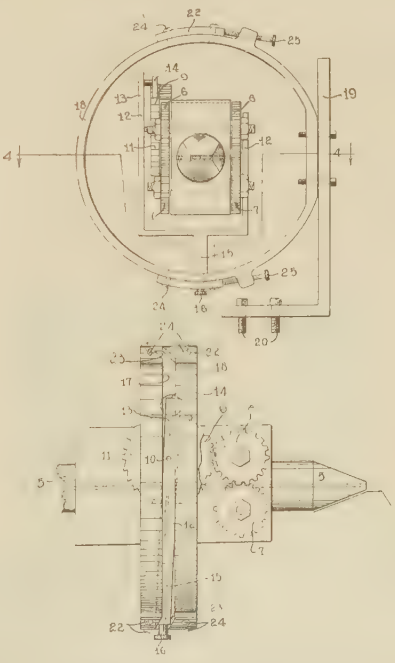
6. A flexible coupling comprising in combination two hub members, each of said members having a plurality of circumferential rows of flexible arms, the inner ends of the arms of one row being in a different plane transverse to the axis of a given member than the inner ends of any other row and staggered with respect to the adjacent row, and the outer ends of the arms of one member being connected to arms in homologous rows on the other member, and all arms having the same radial extension from the axis when the axes of the two hub members are in alinement.

1,416,135. NUT-TAPPING MACHINE. PETER N. SPURK and ROMAN STRAMITZ, Detroit, Mich. Filed Dec. 15, 1919. Serial No. 344,885. 7 Claims. (Cl. 10—133.)



3. In a machine of the character described, the combination of a horizontally disposed table, a hopper for nut blanks supported by the table, a reciprocable feed slide for feeding nut blanks one at a time from the hopper, a reciprocable head supported at an inclination to the horizontal plane of the table and slide and provided with a channel to receive and hold nut blanks, a chute connecting the slide and head to deliver nut blanks to the channel of the head, a tap supported within the channel to engage and tap the nut blanks, a rod to form a continuation of the tap, a tubular shaft in longitudinal alignment with the tap and into which the rod extends, gripping members arranged in pairs and pivotally attached to the tubular shaft to engage and grip the rod, means for operating each pair of gripping members in timed relation to the other pair, and means for reciprocating the slide and head in timed relation to the operation of the means for operating the gripping members.

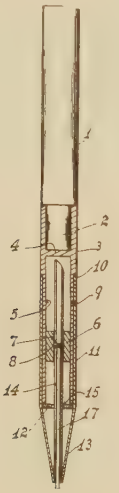
1,416,136. TACK MACHINE. EDWARD O. STARKA, Chicago, Ill. Filed Jan. 3, 1921. Serial No. 434,594. 8 Claims. (Cl. 10—172.)



1. A tack machine comprising an oscillatory guide; feeding means on said guide; a cam member; and means,

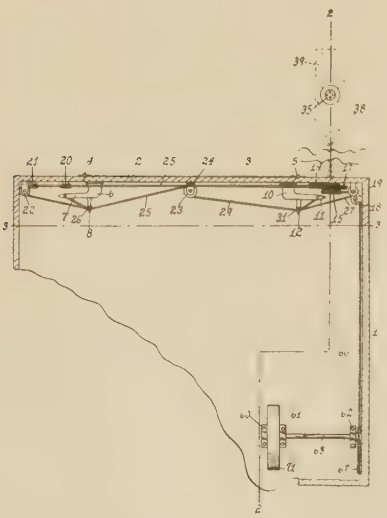
attached to said cam member and adapted to be oscillated thereby for operating said feeding means, substantially as described.

1,416,137. PENCIL. CONRAD STEHL, Oakland, Calif. Filed May 16, 1921. Serial No. 470,196. 2 Claims. (Cl. 120—18.)



2. In a refillable pencil, a tube threaded internally from its lower end upwardly and formed with a reduced portion, extending from its lower end, and with an annular external shoulder at the upper end of said reduced portion, a nut in said tube engaging its internal thread, said nut having an axial bore, a lug on said nut extending into its bore, a rotatable sleeve mounted on the reduced portion of said tube with its upper end engaging said annular shoulder, a lead tube in said sleeve secured in the lower end of said sleeve and extending through the bore of said nut, said lead tube being provided with a longitudinal slot into which said lug extends over the upper end of the lead in said lead tube.

1,416,138. DOOR OPENING AND CLOSING APPARATUS. PAUL K. STROCHALEN, Oakland, Calif. Filed Nov. 15, 1920. Serial No. 424,079. 2 Claims. (Cl. 268—9.)

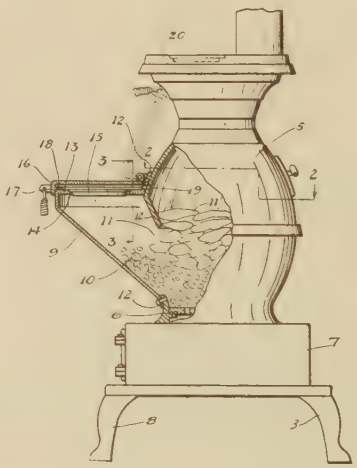


1. A door opening and closing apparatus including a casing embedded in the ground in front of the door, a vertical shaft journaled in said casing, a gear and a disk secured on said shaft, the upper face of said disk being flush with the surface of the ground, a pair of racks slidably mounted in said casing meshing with said gear at opposite sides thereof, a pulley, a rope passing around said pulley and connected at its ends to said racks respectively, and means for engaging and turning said disk to rotate said pulley, and means actuated by said pulley for opening and closing said door.

1,416,139. CARRYING CASE. ADELBERT A. THOMAS, Chicago, Ill., assignor to Chicago Case Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 22, 1921. Serial No. 502,404. 3 Claims. (Cl. 190—17.)

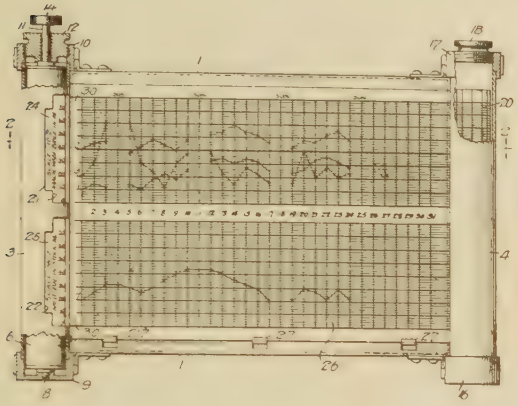
1. In a carrying case, the combination of an enclosing case, a series of superposed trays in the enclosing case, and pairs of parallel links between contiguous trays having their lower ends pivoted to the ends of one tray adjacent the upper margin thereof and their upper ends pivoted to the ends of the contiguous tray adjacent its lower margin so that the links will not overlap one another.

1,416,140. HEATING STOVE. ADAM P. THOMASSON, Chicago, Ill. Filed Oct. 31, 1921. Serial No. 511,557. 3 Claims. (Cl. 126—58.)



1. In a heating stove, the combination with the combustion chamber and fire pot thereof, of an opening in said fire pot; means for feeding moist ashes containing unburnt particles of combustion to said fire pot, a hopper fixedly secured to said stove and surrounding said opening; an inner closure member for the opening of said hopper; an outer closure member hingedly mounted on said apparatus and supported in spaced relation with said first mentioned closure member; and means for permitting the passage of gas into said combustion chamber from the space between said outer and inner closure members, substantially as described.

1,416,141. CHART HOLDER. JACOB O. TRAUTWEIN, Chicago, Ill. Filed Mar. 17, 1920. Serial No. 366,692. 2 Claims. (Cl. 235—86.)



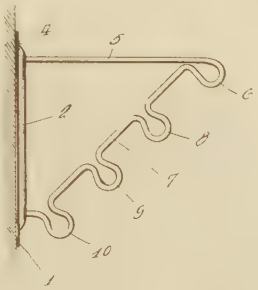
1. In a computing device, the combination of a chart having a plurality of independent curves, with a plurality of scales, adjustable at will into cooperative relation with said chart, each of said scales cooperating with said chart in a predetermined different factorial relation.

1,416,142. FISHING-SNELL CARRIER. CHAUNCEY B. TRUMBLE, Hartford, Conn. Filed Oct. 17, 1921. Serial No. 508,235. 3 Claims. (Cl. 43—32.)

1. A fishing-snell-carrier involving a longitudinally-tapered body having means to receive the hooks of the snells, and an annulus slidable on the body, for holding the snells removably thereagainst.

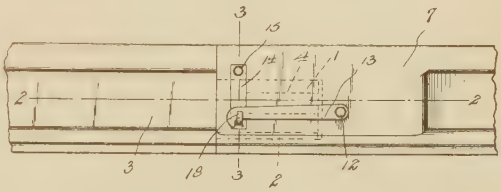
1,416,143. SUIT HANGER. WILLIAM F. WAGNER, Washington, D. C. Filed Oct. 17, 1921. Serial No. 508,104. 1 Claim. (Cl. 45—13.)

A device of the class described comprising a stamped metal base, having a central longitudinal rib pressed therefrom; and a hanger supporting member formed of a length of wire bent to provide two parallel portions, one being of a greater length than the other, extending from the base at opposite ends thereof and at right angles thereto, and a third connecting portion, joining the outer ends of the said two end portions, the said third portion



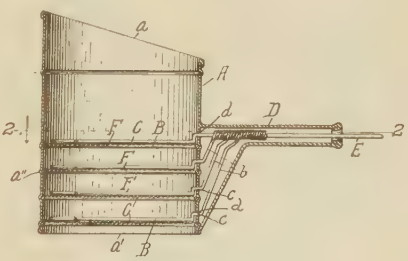
being bent upon itself at spaced intervals to form outwardly projecting loops to support the hangers thereon.

1,416,144. RAIL JOINT. SEBA R. WEEKS and CLARENCE C. BROWN, Campbell, Calif. Filed Feb. 24, 1922. Serial No. 538,853. 1 Claim. (Cl. 238—231.)



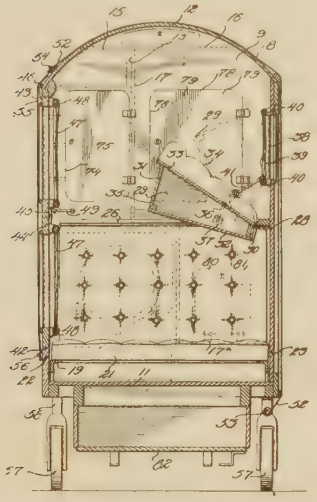
A rail joint comprising two rail ends, one rail end having an extended reduced portion and a lug at one side of said portion, and the other rail end having a socket and a sub-socket to receive said reduced portion and lug and also having a transverse opening intersecting said sub-socket, the said lug having a beveled forward and a square rear end, in combination with a key in said transverse opening and engaged with said lug, said key having a transverse opening in its upper portion and a hook on the outer side of its lower portion, a headed bolt extending loosely through said opening of the key and connected to the second-named rail end, a spring on the bolt and between the head thereof and the key, and a gravitational latch pivotally connected to said rail end and seated in said hook.

1,416,145. SIFTER. CARRIE WERNER, St. Louis, Mo. Filed Sept. 19, 1921. Serial No. 501,641. 3 Claims. (Cl. 83—60.)



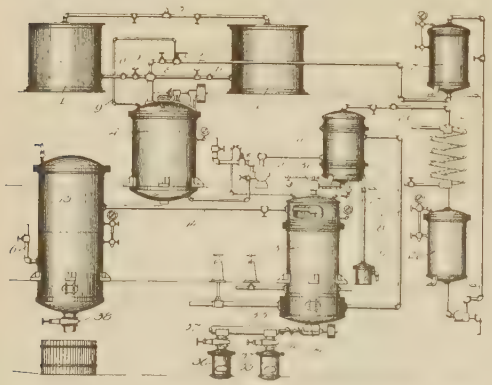
1. A sifter comprising a container a hollow handle connected thereto, a plurality of sieves located therein and spaced at intervals apart, an agitator located on the top of each sieve, said agitators all being connected to a single handle passing through and operating in said hollow handle for manipulating said agitators simultaneously, substantially as specified.

1,416,146. PORTABLE HOUSING DEVICE. JOHN S. WHITE, Wilmington, Del., assignor to Lilly B. Smith, Atlanta, Ga. Filed Nov. 26, 1920. Serial No. 426,397. 7 Claims. (Cl. 20—2.)



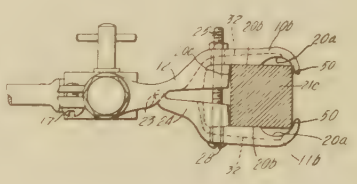
1. A portable housing device including a body portion providing a chamber; a bed bottom therein; a box hinged adjacent the back of said body portion and adapted to be swung from a position partly covering the bed bottom into a position spaced above the bed bottom, said box having an opening in its bottom; a door for closing said opening; and means for locking said door to prevent it from opening downwardly when the box is in said first position; substantially as described.

1,416,147. METHOD OF AND APPARATUS FOR RECOVERING COPPER. HENRY M. WILCOX, Chicago, Ill., assignor to Frederic C. L. D'Aix, Chicago, Ill. Filed July 14, 1917. Serial No. 180,509. 6 Claims. (Cl. 75—18.)



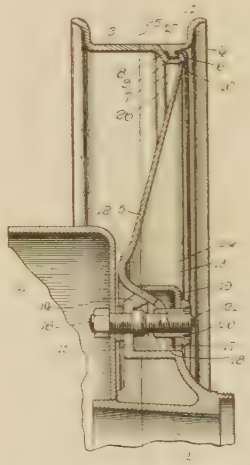
1. The continuous method of recovering copper from a copper sulphate solution which consists in continuously withdrawing spent liquid from the top of the precipitating tank or boiler, continuously introducing into the bottom of the tank or boiler quantities of copper sulphate solution in amounts sufficient to compensate for the withdrawal at the top of the tank or boiler, and feeding the precipitated copper out of the bottom of the tank or boiler and removing it without emptying the boiler of the liquid contained therein.

1,416,148. CLAMP FOR SPOTLIGHT BRACKETS AND THE LIKE. RALPH E. WILLIAMS, Los Angeles, Calif. Filed Aug. 8, 1919. Serial No. 316,055. 4 Claims. (Cl. 248—30.)



1. A clamp of the character described embodying two clamp members having jaw portions and engaging portions said jaw portions having corresponding curved surfaces and flat surfaces, said engaging portions being removed from the jaw portions and forming a single point of contact between the clamp members, and clamping means in connection with the clamp members between the engaging portion and the jaw portions.

1,416,149. VEHICLE DISK WHEEL. WILLIAM ERASTUS WILLIAMS, Chicago, Ill. Filed July 26, 1920. Serial No. 398,928. 6 Claims. (Cl. 301—63.)

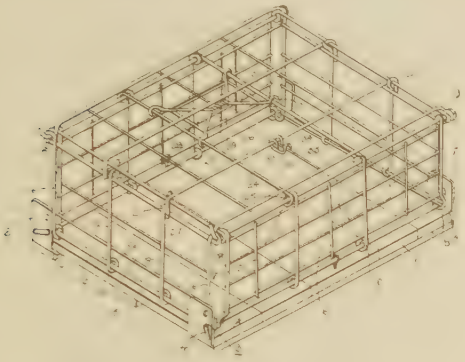


1. The combination with a hub barrel having a flange provided with an annular, inclined, peripheral bearing surface, of a wheel disk provided with a laterally inclined portion bearing on said surface and with a centrally perforated portion extending obliquely outward with respect to the plane of the wheel from said surface to said barrel, and a clamping ring resting against the body of said disk only near its contact with said surface and against the hub in front of said perforated portion.

1,416,150. COLLAPSIBLE CRATE. ANDREW WINTER, Covington, Ky. Filed Oct. 14, 1920. Serial No. 416,827. 11 Claims. (Cl. 220—6.)

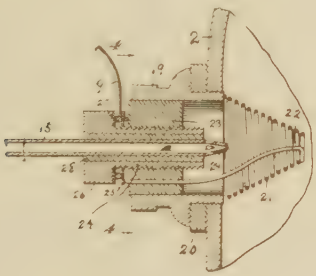
1. In a collapsible crate, a bottom, supports attached thereto, detachable side hinge-rods mounted on said supports, side gratings pivotally mounted on said side hinge-

rods, detachable end hinge-rods mounted on said side hinge-rods, end gratings pivotally mounted on said end



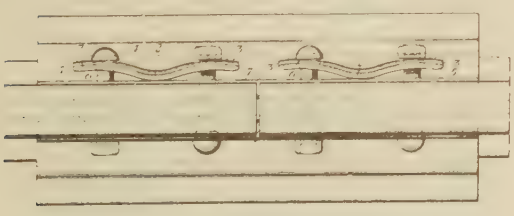
hinge-rods, a top grating and means for detachably connecting said sides, ends and top.

1,416,151. VAPORIZER. CARLOS WITTENMYER, Detroit, Mich. Filed Dec. 21, 1921. Serial No. 523,898. 2 Claims. (Cl. 219—38.)



1. A vaporizer comprising a hollow base, an insulating core therein, a conical heating coil mounted on the base and projecting therefrom and having its outer end bent back to extend through said core, a nozzle mounted in said core and adapted to spray a liquid onto the coil, means to convey a liquid to the nozzle, and an electric conductor connected to the coil.

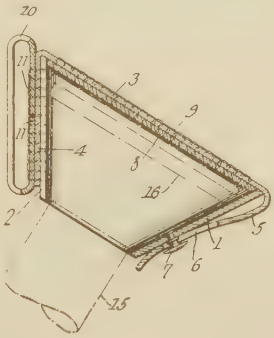
1,416,152. RAIL SPRING. EMANUEL WOODINGS, Verona, Pa., assignor to Verona Tool Works, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 7, 1922. Serial No. 527,793. 9 Claims. (Cl. 238—259.)



1. A rail joint spring having a compound longitudinal curvature with the greatest curvature in the middle portion, substantially as described.

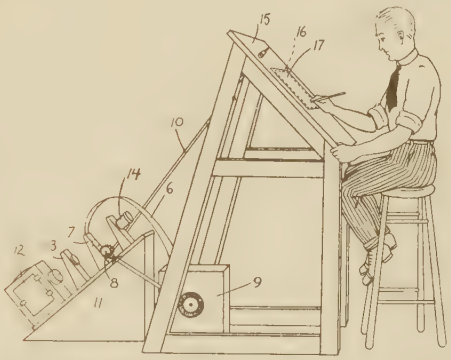
1,416,153. FLASH-LIGHT HOLSTER. JOHN E. WRIGHT, Pleasant Lake, Ind. Filed Apr. 7, 1921. Serial No. 459,244. 1 Claim. (Cl. 224—5.)

A flash lamp holster comprising a body having meeting ends; a loop; a hinge strip extended between the loop, on the one hand, and the meeting ends of the body, on the other hand; means for connecting the loop, the hinge strip



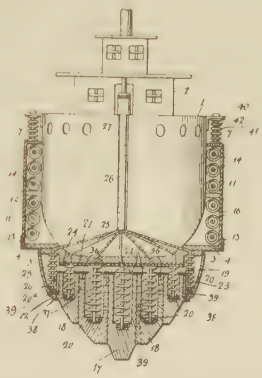
and the meeting ends of the body; and a lid for the body, the lid being mounted on the hinge strip.

1,416,154. METHOD AND APPARATUS FOR PRODUCING MOVING-PICTURE CARTOONS. WILLIAM F. AHBE. Chicago, Ill. Filed Nov. 28, 1919. Serial No. 341,078. 10 Claims. (Cl. 88—16.)



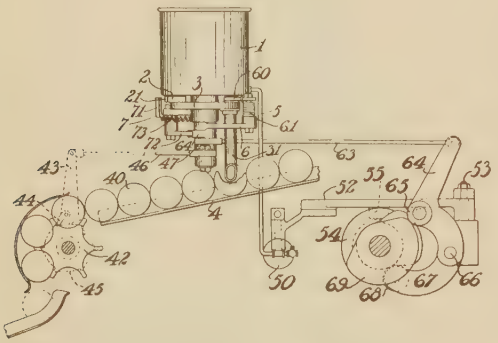
10. The method of producing pictures consisting in producing two negatives of the desired features to be combined, then producing a secondary negative comprising opaque features corresponding with the features upon one of the first-mentioned negatives, then printing a positive from the other of the first-mentioned negatives combined with the said secondary negative, and then reprinting said positive with the detail feature negative corresponding with said secondary negative.

1,416,155. SHIP CONSTRUCTION. CHARLES AHOLA, Detroit, Mich. Filed Dec. 27, 1920. Serial No. 433,508. 6 Claims. (Cl. 114—140.)



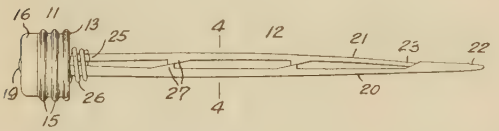
1. In a ship, a hull, a keel, and means adjustably connecting said keel and hull whereby said keel is yieldingly spaced from the hull.

1,416,156. CAN SALTER. NELS B. ANDERSON and JOSEPH A BERG, Astoria, Oreg., assignors of one-half to Seattle-Astoria Iron Works, Seattle, Wash., a Corporation of Washington. Filed Oct. 21, 1919. Serial No. 332,338. 8 Claims. (Cl. 226—94.)



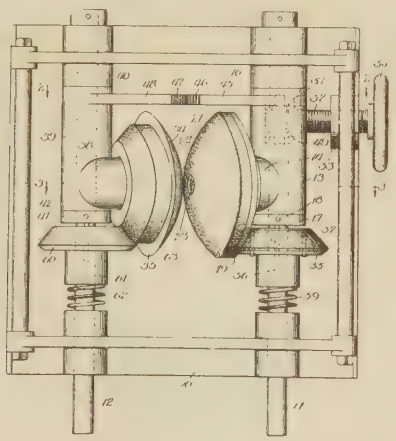
1. A can salting device comprising means for segregating a measured charge of salt, a salt conveying pipe for receiving the charge and having a horizontally facing discharge opening, and means for supplying a blast of air behind each charge of salt to project it horizontally from said discharge opening into the can.

1,416,157. COP-HOLDING SKEWER FOR LOOMS. WILLIAM H. BAKER, Montreal, Quebec, Canada, assignor to Draper Corporation, Hopedale, Mass., a Corporation of Maine. Filed Apr. 2, 1919. Serial No. 287,093. 19 Claims. (Cl. 139—89.)



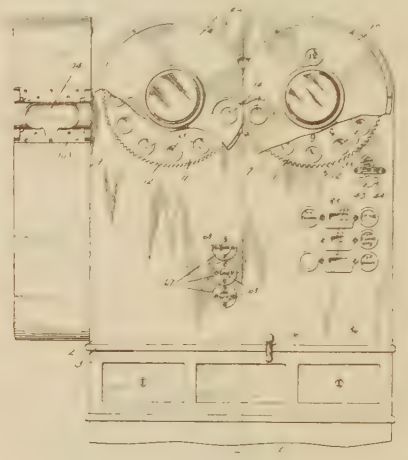
1. A cop spike divided along its longitudinal axis into two parts relatively movable in their longitudinal direction, and a spring urging said spike parts to movement in opposite directions.

1,416,158. VARIABLE-SPEED FRICTION DRIVE. MARTIN BALCKER, Chicago, Ill., assignor to John Nelson, Chicago, Ill. Filed Jan. 26, 1921. Serial No. 440,048. 15 Claims. (Cl. 74—26.)



1. A variable speed friction drive mechanism embodying a driving and a driven shaft, two co-operating rotatable friction drive elements pivotally mounted upon the respective shafts and adapted to be shifted with a rolling contact of the active faces of the elements with each other as distinguished from a sliding movement of the friction surfaces against each other, said elements being simultaneously movable about their pivots whereby the position of the said elements with respect to each other and the respective shafts may be varied while the position of the shafts with relation to each other remains constant.

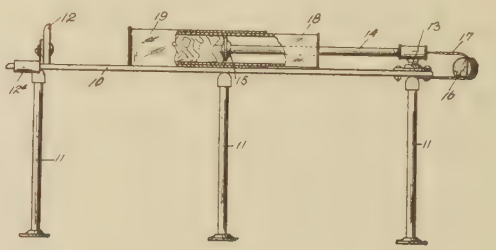
1,416,159. VENDING MACHINE. SAMUEL C. BARR, Chillicothe, Ohio. Filed May 2, 1921. Serial No. 466,283. 8 Claims. (Cl. 211—8.)



1. In a vending machine for optical appliances, a cabinet, eye testing and vending mechanisms sustained by said cabinet, and a common actuating device for simultaneously effecting the operation of said mechanisms.

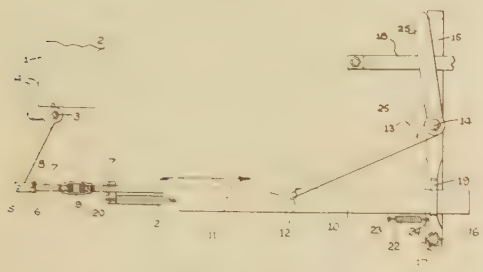
3. In a vending machine for optical appliances, a cabinet, an eye testing mechanism including a pair of rotatably mounted disks, lenses positioned within said disks and capable of being selectively moved to assume positions in registration with sight openings, a vending mechanism capable of containing articles conforming in quality to said lenses, and means for simultaneously operating said eye testing and vending mechanisms whereby materials discharged from said vending mechanism will conform with the lenses positioned in registration with said sight openings.

1,416,160. LAUNDRY BUNDLING, PACKING, AND WRAPPING DEVICE. RALPH W. BARRIER, Indianapolis, Ind. Filed Sept. 13, 1920. Serial No. 410,075. 1 Claim. (Cl. 226—18.)



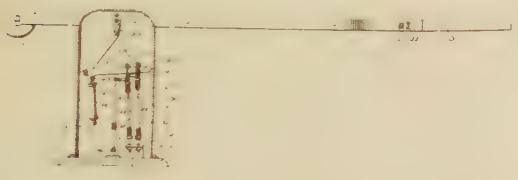
In a device of the class described, the combination of a flat table top, an open-ended bag holder, and a packer bar fixed to one end of the table top and extended over the table, and having a packing head thereon supported in position spaced slightly above the table and of such size as to be readily received within the bag holder.

1,416,161. TRIPPING DEVICE. CLARENCE B. BEYER, Albuquerque, N. Mex., assignor of three-eighths to Paul G. Redington and one-fourth to Frank L. McNama, Albuquerque, N. Mex. Filed July 24, 1919. Serial No. 313,055. 7 Claims. (Cl. 298—19.)



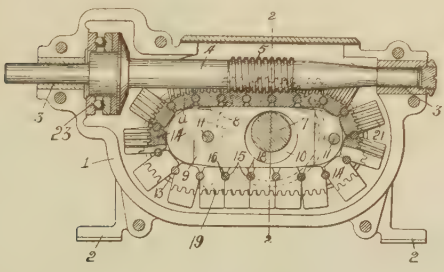
1. In an end gate tripping device, the combination of a gate-engaging member, a tripping lever, a rod between said member and said lever, and means interposed between said rod and said tripping lever to permit adjustable operating engagement of said tripping lever with the actuating rod without varying the effective length of said rod.

1,416,162. BARRIER GATE. LESTER S. BLACK, White Pigeon, Mich. Filed Oct. 3, 1921. Serial No. 505,111. 7 Claims. (Cl. 39—60.)



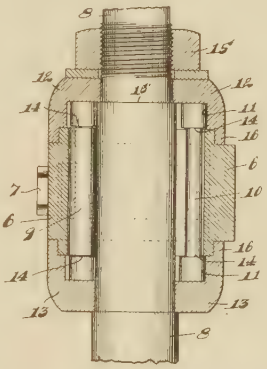
1. A barrier gate structure comprising in combination, a gate pedestal; a horizontal rock-shaft mounted therein; a counterbalanced gate mounted on and adapted to oscillate with said rock-shaft; a lever pivoted intermediate its ends within said pedestal; connections between one end of said lever and said rock-shaft to rock the latter upon movement of said lever about its pivot; a spring-power device for causing rotation of said lever about its pivot in one direction; a second spring-power device for causing rotation of said lever about its pivot in the opposite direction; means for moving one of said spring-power devices into operative position to rotate said lever; and means for simultaneously rendering the other of said spring-power devices inoperative to rotate said lever.

1,416,163. POWER-TRANSMISSION MECHANISM. WILLIAM EMIL BOCK, Eagle Point Colony, Ohio, assignor to Bertha M. Bock, Eagle Point Colony, Ohio. Filed June 5, 1920. Serial No. 386,678. 16 Claims. (Cl. 74—36.)



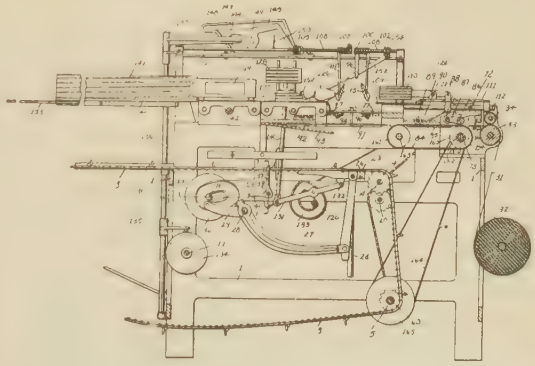
1. In a power transmission mechanism, a drive worm, a plurality of members arranged in endless chain form and each being engaged and driven during a predetermined portion of its movement by the worm, means guiding the movements of the members, and means engaged by the members intermediate the ends of a flight thereof and driven thereby.

1,416,164. ROLLER BEARING. ROBERT G. BODLUND, Chicago, Ill. Filed Jan. 2, 1919. Serial No. 269,208. 1 Claim. (Cl. 64—61.)



The combination with a tubular housing, of a shaft journalled through said housing, bearing members rigidly mounted on said shaft and loosely engaging the opposite ends of said housing; a plurality of rollers mounted in said housing and surrounding and contacting with the periphery of said shaft; raceways formed in each of said bearing members; rollers having reduced central portions mounted in said raceways between said first-mentioned rollers, said reduced portion of each of said rollers contacting with the periphery of said first-mentioned rollers and adapted upon rotation of said first-mentioned rollers to rotate in the opposite direction of the said shaft, the ends of said reduced rollers serving as shoulders preventing the longitudinal movement of said first-mentioned rollers, substantially as described.

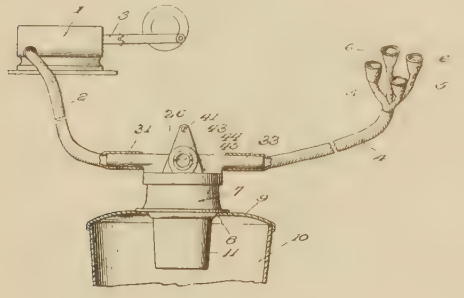
1,416,165. WRAPPING MACHINE. CHARLES O. BROWNELL, Battle Creek, Mich. Filed Aug. 2, 1918. Serial No. 247,931. 11 Claims. (Cl. 93—2.)



11. In a wrapping machine, the combination of ways, a carriage reciprocating on said ways and comprising front and rear members, the front member being pivoted on the rear, arms mounted on said carriage members and having grippers pivotally mounted thereon, a control cam for the pivoted carriage member comprising a fixed cam member and a rocking member disposed therein to provide a cam way having an upwardly inclined portion at its rear end and a downwardly inclined portion at its front end, the front carriage member being provided with a roller traveling in said cam way so that on the forward stroke of the

carriage the front carriage member is elevated at the rear end of the feed stroke and held in elevated position to pass over the article delivered on the rear stroke of the carriage, and means for reciprocating said carriage.

1,416,166. VALVE FOR MILKING MACHINES. JOHN T. BUCKWALTER, Lancaster, and FREDERICK T. FLINCHBAUGH, York, Pa.; said Flinchbaugh assignor to said Buckwalter. Filed Jan. 7, 1920. Serial No. 349,853. 4 Claims. (Cl. 31—98.)

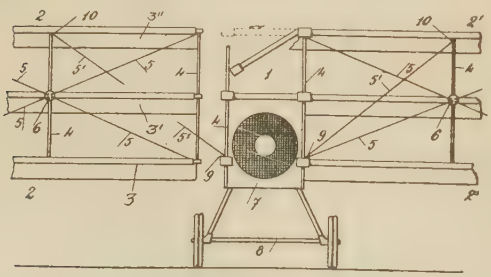


1. The combination with a valve casing having oppositely disposed ports, of a swinging valve flap having two opposite marginal edges turned in the same direction and towards one of the ports whereby swinging movement of said valve flap in one direction to its extreme position closes one of the ports and swinging movement in the other direction to its extreme position engages the said marginal edges with the valve casing for holding the flap spaced from the port to baffle the latter.

3. In a device of the class described, a valve casing having oppositely disposed ports, a valve suspended for swinging movement within the casing between said ports and arranged when swung toward one port to completely close the same, and means limiting the swinging movement of the valve toward the other port whereby, when so swung, it will serve as a baffle for said port without closing the same.

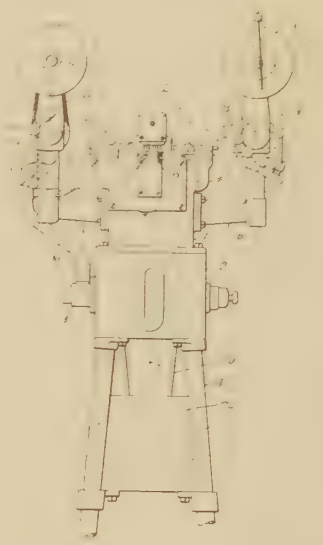
4. In a device of the class described, a valve casing having oppositely downwardly sloped walls and provided with ports opening through said walls at substantially opposite points, a valve suspended for swinging movement within the casing toward either of said ports and having a base arranged, when the valve is swung toward one port, to close the same, and means upon the valve limiting its swinging movement in the direction of the other port whereby in the latter position of swinging movement it will constitute a baffle for the last mentioned port without closing the same.

1,416,167. FLYING-MACHINE CONSTRUCTION. GIANNI CAPRONI, Milan, Italy. Filed Apr. 22, 1919. Serial No. 292,001. 3 Claims. (Cl. 244—31.)



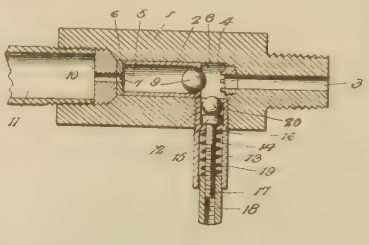
1. An aeroplane structure comprising a plurality of superposed planes including a plurality of longitudinals, a plurality of uprights extending vertically from one longitudinal to the other, a plurality of staywires extending between the ends of said uprights and crossing each other in groups on points of the medial longitudinal, a hemispherical casing having its base connected to said medial longitudinal, and means for connecting the staywire to the casing.

1,416,168. PERFORATING MACHINE. CHARLES R. CARLETON, Brooklyn, N. Y. Filed July 20, 1920. Serial No. 397,593. 15 Claims. (Cl. 164—88.)



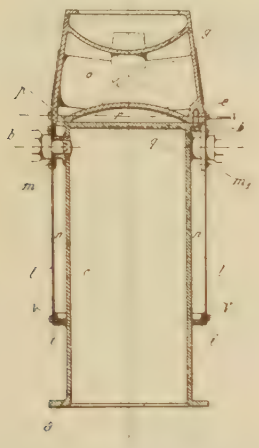
1. In a film perforator, a casing, a pair of vertically slidable elements located respectively at the rear and front of the casing, the rear element having a forwardly projecting punch head formed on its upper end and the front element having a stripper member projecting rearwardly from the top thereof under the said punch head, film advancing means carried by the casing between the said slidable elements, and a shaft extending through said casing from front to rear and operatively engaged with said slidable elements and said film advancing means.

1,416,169. AUTOMATIC SAFETY GAS CUT-OFF. PETER PANEPINTO CATALANO, North Collins, N. Y. Filed Mar. 30, 1921. Serial No. 456,926. 3 Claims. (Cl. 67—115.)



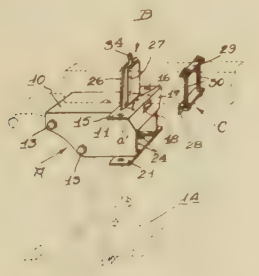
1. In a gas cut-off, the combination of a casing having an inlet passage and an outlet passage and provided with a valve seat in the inlet passage, a valve disposed within the inlet passage and held to its seat by the direct pressure of gas in the inlet passage, and an unseating device within the casing normally lying between the valve and the outlet passage and holding the valve unseated, said device being maintained in normal operative position by frictional engagement with the valve and with an interior wall of the casing under pressure of the gas upon the valve.

1,416,170. CYLINDER OF INTERNAL-COMBUSTION ENGINES. GIUSTINO CATTANEO, Milan, Italy. Filed Apr. 27, 1918. Serial No. 231,284. 3 Claims. (Cl. 123—173.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



1. In an internal combustion engine, the combination of a cylinder, valve seats in the end wall of said cylinder, a cylinder head detachably secured to the end wall of said cylinder, said cylinder head comprising gas and air conduits, valve supporting and guiding means and a water jacket, a plate encircling the cylinder and welded thereto, and a jacket of sheet metal detachably secured to said cylinder head and plate and forming with the cylinder walls and said plate a watertight receptacle.

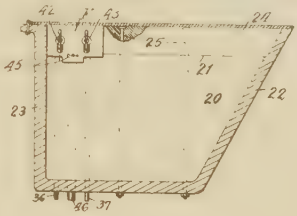
1,416,171. COMBINATION TONGUE AND SEAT SUPPORT FOR TRACTORS. ARTHUR DENNIS COLE, Minneapolis, Minn. Filed Mar. 24, 1921. Serial No. 455,229. 8 Claims. (Cl. 280—33.2.)



5. In a device of the class described, the combination of a body adapted to be rigidly secured to the frame of a tractor, a bolt, a head on said bolt designed to slidably receive the tongue of an implement drawn by the tractor, bolt receiving members on said body in which said bolt may be swivelled in various upright positions laterally of said body to alter the draft of the implement, seat support receiving means and a locking device for seat supports on said body.

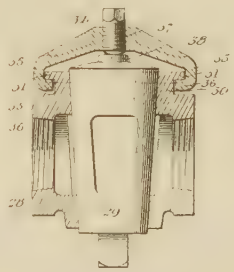
1,416,172. FITTING FOR TUBS AND SINKS. PATRICK CONNOLLY, Brooklyn, N. Y. Filed Apr. 18, 1919. Serial No. 291,057. 10 Claims. (Cl. 4—24.)

1. A fitting for tubs, sinks and the like, formed of a casting shaped to fit in a recess in the body of a wall of a tub or sink and having a flange to extend over the face of the tub or sink wall, said fitting comprising a supply chamber and an overflow chamber, the supply chamber being formed with an inlet opening in the bottom thereof



and with an outlet opening for receiving a faucet, and the overflow chamber being formed with an outlet opening in the bottom thereof and with an inlet opening in the side thereof to communicate with the tub or sink on which the fitting is placed.

1,416,173. STOPCOCK. GEORGE T. CONRATH, Bowling Green, Ohio. Filed Mar. 20, 1918. Serial No. 223,624. 1 Claim. (Cl. 251—91.)

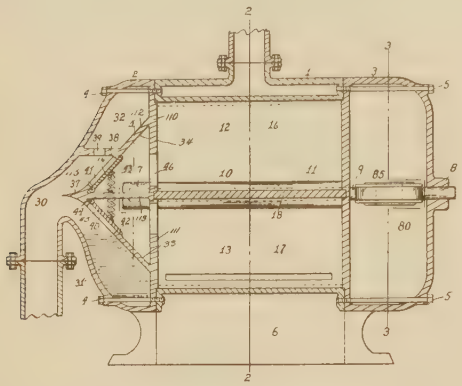


A valve casing having a tapered opening extending therethrough and providing a valve seat, a tapered plug valve, the ground surface of which directly contacts with the seat, permitting of locking engagement, said valve having its reduced end centrally provided with an outstanding lug, said casing at the widened end of the opening therein being formed with an extension having spaced flanges on the ends thereof, said flanges, upon their inner faces being formed with recesses intermediate of the openings between the flanges, a bridge member including downwardly and inwardly extending lugs proportioned for reception between the flanges and for reception within the depressions, upon turning the bridge about the longitudinal axis of the plug, and an element threaded through the bridge and acting to produce an inward thrust on the larger end of the plug for seating the latter, and an outward thrust between the lugs and the recessed portions of the flanges.

1,416,174. OSCILLATING PUMP. ALFRED B. COOK, Stockton, Calif., assignor to Taylor-Mayhew Pump Co., San Francisco, Calif., a Corporation of California. Filed Nov. 11, 1919. Serial No. 337,126. 5 Claims. (Cl. 103—73.)

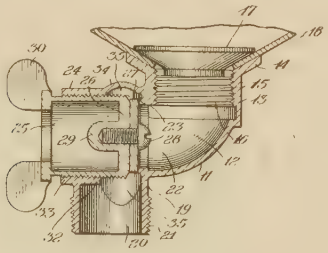
1. In a pump, a cylinder provided with an inlet and an outlet, an oscillative piston mounted in said cylinder,

means for admitting water through said inlet into said cylinder, one of the cylinder heads being hollow, a drive



shaft extending into said head, and an oscillative movement within said head connecting said shaft and the piston shaft.

1,416,175. VALVE. FORREST J. COUCH, Rochester, N. Y., assignor to Clark, Cadle, Harmon Corp., Rochester, N. Y., a Corporation of New York. Filed July 25, 1919. Serial No. 313,204. 1 Claim. (Cl. 251—155.)

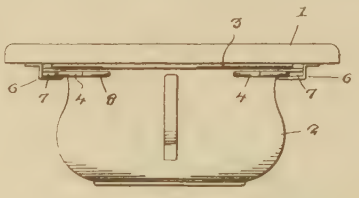


A compact quick-acting valve comprising a casing formed with communicating inlet and outlet passages, a valve seat on the casing about one of said passages, said casing having a bore formed therein with a screw threaded wall a portion of which projects partially across the other of said passages, and a screw threaded valve body in said bore cooperating with said seat, said casing having a portion of its wall expanded adjacent said seat to provide a substantially annular space about the path of movement of the valve body and communicating with said other of said passages exteriorly of said projecting portion of the bore wall to compensate for the obstruction of the fluid by the latter.

1,416,176. HAND AND INDICATOR FOR WATCHES AND LIKE ARTICLES. HERMANN F. CUNTZ, Hartford, Conn., assignor to American Radium Company, New York, N. Y., a Corporation of New York. Original application filed July 2, 1921, Serial No. 482,095. Divided and this application filed Oct. 14, 1921. Serial No. 507,743. 6 Claims. (Cl. 58—50.)

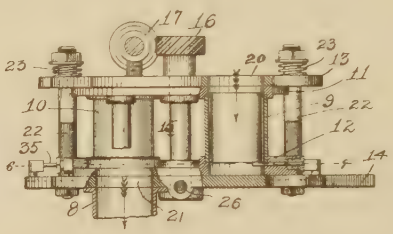
1. An article of the character described comprising a base flanged from the hub for a portion of its length and having a ridge extending the remaining portion through the axis to form lateral recesses on either side and radio-luminous material embedded in said lateral recesses below the plane of the top of the ridge.

1,416,177. CHAMBER SPRING ATTACHMENT. LEVI R. H. DICK, Chicago, Ill., assignor to Clasp-Tight Spring Company, Wilmington, Del., a Corporation of Delaware. Filed June 24, 1920. Serial No. 391,538. 1 Claim. (Cl. 4—32.)



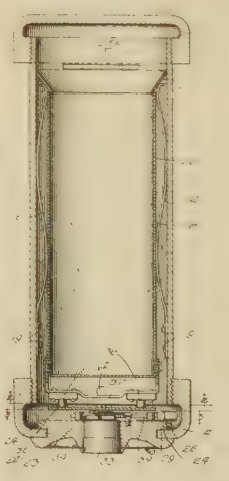
The combination with a seat, of a ring shaped clamping member having its ends spaced apart, a Z-shaped bracket having an eye for engaging the ring member and another bracket having an elongated eye for movably engaging the ring.

1,416,178. MEANS FOR FEEDING CANS. FRANK B. DONNELLAN, San Francisco, Calif. Filed Oct. 21, 1920. Serial No. 418,544. 4 Claims. (Cl. 126—272.)



1. In a cooking retort, a can feeding device comprising an opening in the retort, a plurality of cylinders revolvably mounted over the retort so as to sucessively register with the opening, a plate supported above the cylinders, means for holding the same in yielding contact mith the cylinders, and a can inlet in said plate not registering with the opening in the retort but adapted to successively register with the cylinders.

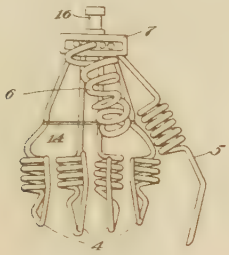
1,416,179. VEHICLE SAFE. WILLIAM EHRLICH, Chicago, Ill. Filed Aug. 23, 1919. Serial No. 319,405. 9 Claims. (Cl. 109—4.)



1. A vehicle safe comprising a casing having a circular door opening in one end with spaced projections around said door opening; a door in said door opening and having rigid projections thereon disposed behind the projections around said door opening and adapted to pass between

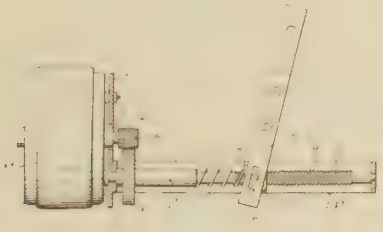
the latter projections upon limited rotary movement of the door; a pin on the door adapted to cooperate with a part of the casing for guiding the door into the door opening in a predetermined relation with the latter, a pin in the casing, and a spring-pressed arm pivoted on the door and adapted to engage the last mentioned pin to lock the door against being opened.

1,416,180. ARTIFICIAL HAND. JOHN J. EVERSON, Newton, Mass. Filed June 10, 1919. Serial No. 303,045. 3 Claims. (Cl. 3—12.)



2. An artificial hand having fingers and a thumb each consisting of a frame member, a base piece in the wrist portion of said hand, said finger frame members being anchored in said base piece and projecting from one side thereof, the said thumb wire also being anchored in said base piece and projecting from one end thereof, and a resilient palm for said hand comprising a coiled spring anchored in said base piece and projecting from the side thereof opposite to that from which the finger frame members project and extending substantially longitudinally of said hand.

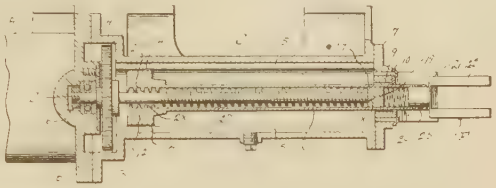
1,416,181. CAR BRAKE. ROBERT Z. FARMER and GEORGE S. MARSH, Roseburg, Oreg., assignor to Automatic Electric Brake Company, a Corporation of Oregon. Filed Nov. 8, 1919. Serial No. 336,764. 5 Claims. (Cl. 188—162.)



1. In combination with a brake lever of a brake rigging, a shaft, a member threaded on said shaft and in pivotal connection with the brake lever, means for rotating the shaft in either direction for imposing push or pull upon the brake lever, and expansible means for limiting the movement of the member in one direction, said shaft rotating independently of the member when the member is at the limit of its movement as controlled by the expansible means.

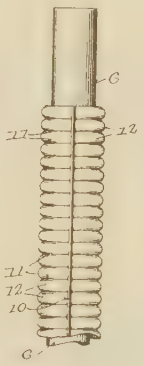
1,416,182. POWER-TRANSMITTING DEVICE. ROBERT Z. FARMER, Roseburg, Oreg., assignor to Automatic Electric Brake Company, a Corporation of Oregon. Filed June 7, 1920. Serial No. 387,100. 7 Claims. (Cl. 74—40.)

1. A device of the class described comprising a tubular piston supported for endwise movement, a shaft extending within the piston, a bearing block within the outer end portion of the piston for coaction with the inserted end



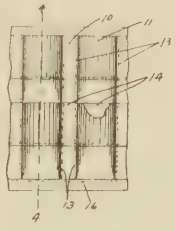
of the shaft, said block being movable lengthwise of the piston, and yieldable means for urging the block inwardly of the piston.

1,416,183. ELECTRODE. JOSEPH W. FAY, Milwaukee, Wis., assignor to Seamweld Equipment Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed June 24, 1921. Serial No. 480,168. 5 Claims. (Cl. 219—12.)



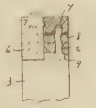
1. An electrode for welding purposes, comprising a bar of metal, a coat of cement on said bar, and an insulating paper covering over the cement, said paper having transversely extending depressions therein and longitudinally extending ribs.

1,416,184. SHELL BELT. EDWARD FLURIE, Big Sioux Township, Union County, S. Dak. Filed Dec. 14, 1920. Serial No. 430,689. 2 Claims. (Cl. 224—23.)



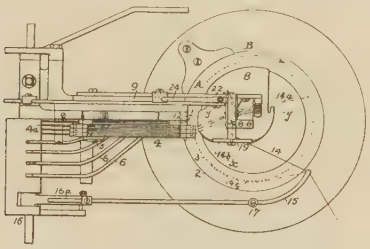
1. An ammunition shell belt, including a flexible waist band, having its upper and lower edge portions so folded over that the lower edge portion overlaps the upper edge portion, and two strips of flexible material on the band, formed with vertical loops to receive shells, the lower edges and the portions of the strips intermediate the loops and the over-folded and intermediate portions of the band being stitched together.

1,416,185. KNIFE-BLADE SWITCH. RUDOLF FREUND, Irvington, N. J., assignor to Freund Electric Manufacturing Company. Filed Jan. 13, 1920, Serial No. 351,149. Renewed Mar. 6, 1922. Serial No. 541,590. 8 Claims. (Cl. 200—172.)



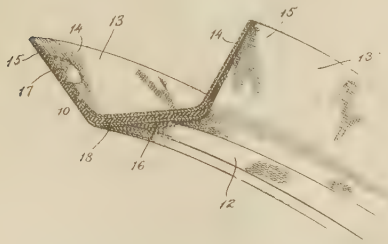
2. In a knife blade switch, the combination of a blade having a tang upon its free end, and a cross-bar having a blind cavity therein to receive said tang, the latter being upset within said cavity, whereby said blade is firmly secured to said bar.

1,416,186. KNITTING MACHINE. PAUL H. FRYER, Philadelphia, Pa. Filed June 29, 1920. Serial No. 392,660. 5 Claims. (Cl. 66—12.)



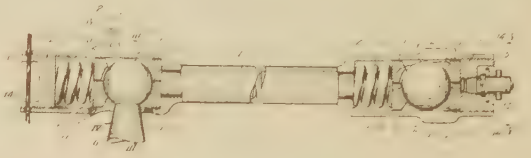
1. A knitting machine having a needle cylinder and needles therefor, a thread guide for feeding a body thread to the needles, a thread guide for feeding a splicing thread to the needles, means for putting the thread guides into and out of feeding action, a main thread clamp and cutter and supporting plate therefor arranged within the needle cylinder for respectively holding the thread ends and severing the threads between the clamp and fabric on the needles, combined with an auxiliary clamp arranged within the needle cylinder to provide additional clamping action upon the splicing thread, said auxiliary clamp arranged out of alinement with the body thread and its guide, whereby an additional clamping of the splicing thread may be had to prevent it from becoming released from the main clamp at the time the splicing thread is fed to the needles and before it is knitted into the fabric.

1,416,187. TIRE FLAP. JOHN R. GAMMETER, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York. Filed Mar. 27, 1922. Serial No. 547,029. 2 Claims. (Cl. 152—20.)



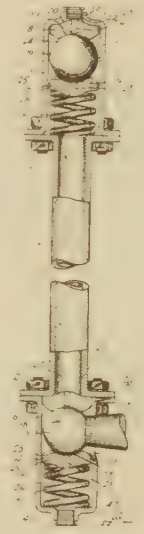
2. A pneumatic-tire flap comprising an annular, substantially flat-bottomed, trough-shaped structure having overlapped ends and composed of surface plies of fabric and an interposed filler of vulcanized rubber and fiber compound.

1,416,188. DRAG LINK. HARRY B. GARMAN, Detroit, Mich., assignor to The Steel Products Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 2, 1921. Serial No. 489,362. 5 Claims. (Cl. 74—17.)



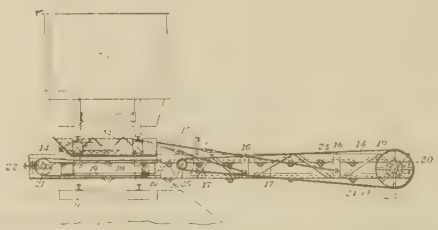
1. A drag link consisting of a piece of tubing having a socket portion of enlarged diameter, said socket portion having a ball lever receiving slot therein, the wall of said socket portion being thickened at the slotted portion thereof.

1,416,189. DRAG LINK. HARRY B. GARMAN, Detroit, Mich., assignor to The Steel Products Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 2, 1921. Serial No. 489,364. 9 Claims. (Cl. 74—17.)



1. In a weldless type drag link, the combination of an intermediate member; an end socket removably secured thereto; a member secured to the other end of said intermediate member; a connecting member secured to said last-mentioned end member; and a second connecting member journaled in and secured to said socket, the latter being formed with an extending slot open at its inner end and providing for the lateral shifting of its connecting member.

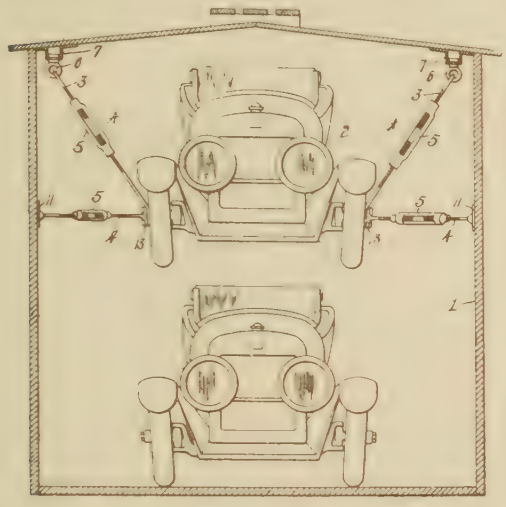
1,416,190. UNLOADING DEVICE. ELMER J. GASS and DAVID W. THURSTON, Pittsburgh, Pa. Filed May 31, 1919. Serial No. 300,933. 6 Claims. (Cl. 214—46.)



1. An unloading device, comprising a truck having a plurality of independent longitudinally extending sills,

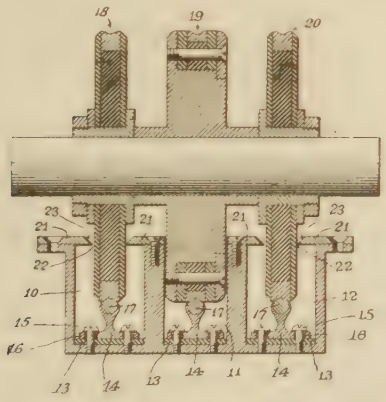
means connecting said sills and permitting relative movement therebetween, a hopper mounted on certain of said sills, and a conveyor below said hopper, substantially as described.

1,416,191. ADJUSTABLE SUSPENDING RIG FOR AUTOMOBILES. ARTHUR G. GIRARD, Toledo, Ohio. Filed Mar. 13, 1922. Serial No. 543,318. 9 Claims. (Cl. 105—368.)



3. In a suspending rig of the class described, a unit having suspending and lateral bracing members terminating at their free ends in axially aligned sleeve embracing eyes, and an article engaging sleeve for entering the eyes of the members.

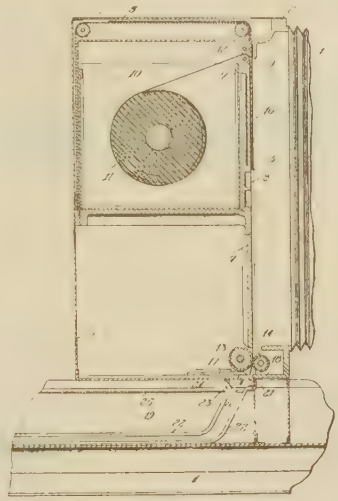
1,416,192. CONDUCTOR RAIL. EDWIN B. GRACE and WILLIAM J. LAFFEY, Memphis, Tenn. Filed Mar. 18, 1921. Serial No. 453,454. 4 Claims. (Cl. 191—24.)



1. A conductor rail comprising a casting formed to provide a series of channels, the vertical walls of the intermediate of the said channels being of a greater thickness than that of the other walls of the casting, supports equi-distantly spaced along each of said channels and insulated therefrom, and conductors extending through each of the said channels and secured in said supports.

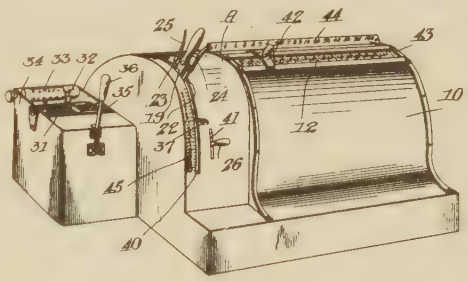
1,416,193. PRINT-STORAGE EQUIPMENT FOR CAMERAS. JOHN S. GREENE, Rochester, N. Y., assignor to Photostat Corporation, Providence, R. I., a Corporation of Rhode Island. Filed Oct. 8, 1920. Serial No. 415,503. 4 Claims. (Cl. 95—34.)

1. In a camera, the combination with a body and means for supporting sensitive material in the focal plane thereof, of a receptacle for exposed material arranged below the body and provided with an opening for the introduction of such material, the film support and receptacle



being relatively movable, and sealing elements on the film support and adjacent to the opening in the receptacle respectively, adapted to cooperate in a light tight manner when these members are in normal relative positions.

1,416,194. COMPUTING MACHINE. ALEXANDRE GUINDON, Rockland, Ontario, Canada. Filed July 15, 1920. Serial No. 396,415. 3 Claims. (Cl. 235—87.)

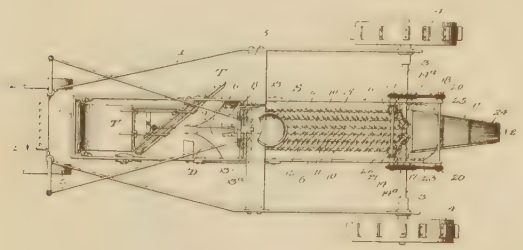


1. A computing machine comprising a casing, a drum rotatably mounted in the casing and having symbols on its periphery, a spindle, gears connecting the spindle with the drum, a pair of ratchet wheels on the spindle having oppositely disposed teeth, a hand lever, detents carried by the lever to coact with the teeth, means for simultaneously actuating the detents, a lever pivoted within the casing and having an offset end designed to engage one of the gears, a gear on the said spindle, a second spindle movable in a direction transversely to its length and having a gear to coact with the last said gear, a pointed threaded on the last said spindle and a roller having graduations thereon underlying the pointer.

1,416,195. ELECTRIC STORAGE BATTERY. EDWARD HACKING, Central Falls, R. I., assignor, by mesne assignments, to Electrol Manufacturing Company, a Corporation of Rhode Island. Filed Apr. 30, 1918. Serial No. 231,620. 8 Claims. (Cl. 204—29.)

1. A mixture for use in electric storage batteries having lead plates, which mixture comprises silicate of soda, a sulphuric acid solution and a minor proportion of a liquid hydrocarbon miscible with all the other named constituents and non-oxidizible by the acid.

1,416,196. BEET ELEVATOR. OLE HANSEN, Menan, Idaho. Filed Nov. 24, 1919. Serial No. 340,257. 2 Claims. (Cl. 55—108.)

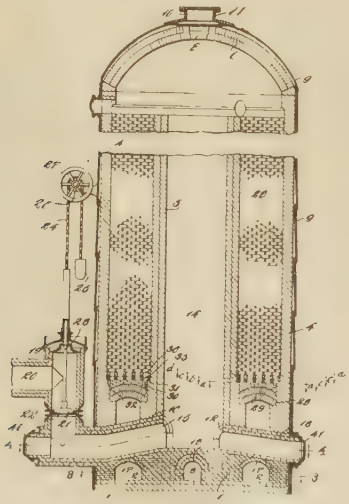


1. In a beet harvesting machine, the combination with the digging elements, of a conveyer frame having its lower end carried by the digging elements and its upper end supported in the frame of the machine, said conveyer frame consisting of a pair of sprocket shafts arranged in vertically converging relation and journaled in the digging elements, a second pair of vertically converging sprocket shafts journaled at one end in a frame part of the machine, longitudinal braces connecting corresponding shafts of the opposite pairs of sprocket shafts, sprocket wheels carried by the sprocket shafts, conveyer belts carried by the sprocket wheels to provide a vertically converging conveyer trough, and members for guiding the lower edge portions of the inner flights of the opposite conveyer belts.

1,416,197. MANUFACTURE OF INCANDESCENT ELECTRIC LAMPS. FRANCIS HARRISON, London, England, assignor to The Aladdin Renew Electric Lamp Corporation Limited, London, England. Filed July 8, 1919. Serial No. 309,385. 3 Claims. (Cl. 176—7.)

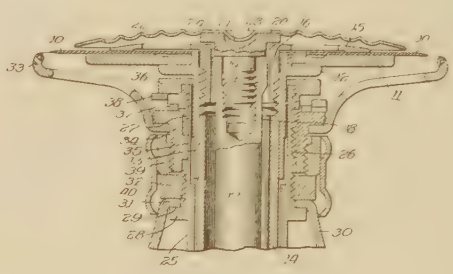
1. The method of renewing metal filament lamps having permanent supporting hooks arranged therein in independent series located in different planes, comprising making an opening in the lamp bulb, removing the old filament therethrough and forming a new filament of a series of coils, and applying said new filament to any desired number of said hooks by stretching same to the desired length, substantially as described.

1,416,198. HOT-BLAST STOVE. LOUIS M. HARTWICK and PATRICK J. BROWN, Cleveland, Ohio; said Hartwick assignor of his entire right to The Frazier-Sheal Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 20, 1919. Serial No. 272,003. 8 Claims. (Cl. 263—19.)



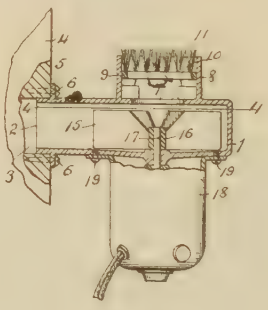
1. In a hot blast stove, the combination of an inner wall enclosing a central chamber and an outer wall forming with the inner wall an annular chamber surrounding the central chamber, arches extending radially between the inner and the outer wall, each arch having a flat top, transverse parallel bars supported on said arches, and checker work supported by said bars.

1,416,199. RAZOR-BLADE GUARD AND FACE PLATE. HUGO S. HASSELQUIST, Oak Park, Ill., assignor, by mesne assignments, to Cap B. Collins, Oak Park, Ill. Filed Mar. 15, 1920. Serial No. 365,725. 3 Claims. (Cl. 30—12.)



1. In a razor construction of the character described, the combination of a round disc razor-blade, a corrugated convex face-plate over said blade, a stationary mounting for said face-plate, and a round smooth-edge guard of a larger diameter than and concentric with said blade, substantially as described.

1,416,200. ERASER-CLEANING MACHINE. WILLIAM J. HAYNES, Jr., Kansas City, Mo. Filed July 5, 1919. Serial No. 308,850. 1 Claim. (Cl. 15—7.)

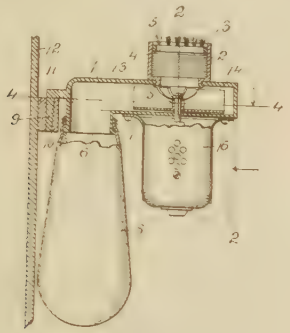


In an eraser cleaner, a casing having an inlet and an outlet for air and provided with a flange encircling said inlet, a brush comprising a perforate frame and bristles mounted in the frame, the frame being removably seated in said flange across said inlet and the bristles projecting outwardly beyond the outer edge of said flange, and means for drawing air through said brush and inlet and discharging the air through said outlet, substantially as set forth.

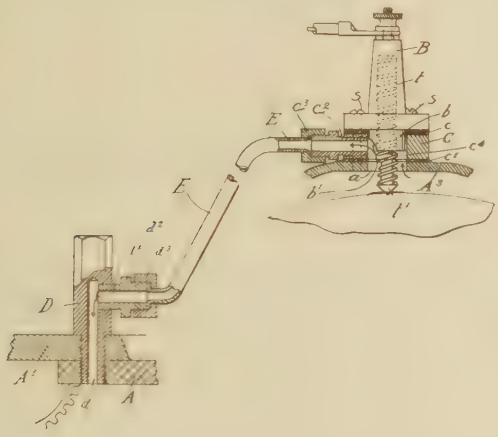
1,416,201. ERASER CLEANER. WILLIAM J. HAYNES, Jr., Kansas City, Mo., assignor to National Wood Renovating Company, Kansas City, Mo., a Corporation of Missouri. Filed July 30, 1920. Serial No. 400,140. 2 Claims. (Cl. 15—7.)

1. In an eraser cleaner, a casing having a discharge nozzle having a hook, the casing having an air inlet, a brush across said inlet, means for drawing air through

said inlet and for discharging the air through the nozzle, and a bracket adapted to be attached to a wall and having a hole for receiving said hook to support said casing, substantially as set forth.

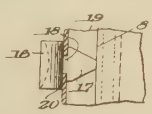


1,416,202. OILING DEVICE. WILLIAM Y. HEADLEY, Cincinnati, Ohio. Filed Apr. 29, 1921. Serial No. 465,612. 2 Claims. (Cl. 184—11.)



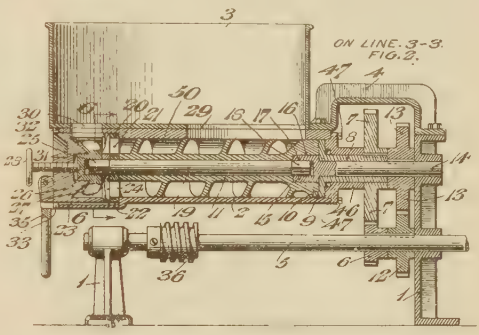
2. In combination with the splash-oiled engine of the Ford type, a thick washer confined between the magneto plug and the transmission case, an oil outlet passage through the wall of said washer, the contiguous base of said magneto plug being cut away to form an inlet passage to direct the oil splashed from the transmission case into said oil outlet, a hollow stud forming an inlet for oil and adapted to replace one of the standard bolts securing the gear cover to the crank case, and an oil conduit connecting said washer outlet to said stud inlet.

1,416,203. APPAREL LACING. ORLEN HOBSON, Fresno, Calif. Filed May 21, 1921. Serial No. 471,301. 2 Claims. (Cl. 24—145.)



2. In a fastening for shoes and the like the combination of a strip of flexible material adapted to be folded upon itself longitudinally and to have its free ends secured upon opposite sides of each of the parts to be drawn together and being provided in its folded portion with a plurality of narrow slits extending longitudinally thereof; and a plurality of tubular eyelets each provided with an arrow-head shaped projection extending from the side thereof, said projection being provided at its connection to said eyelet with a narrowed neck adapted to be mounted within said slits, said enlarged portion serving to prevent withdrawal thereof, there being one of said eyelets for each of said slits; and a single lacing within said eyelets, said lacing having its central portion extending between the lowermost eyelets and having its free ends extending through alternate eyelets on the opposed portions to be drawn together.

1,416,204. CUTTING MACHINE. CHARLES W. HOTTMANN, Philadelphia, Pa. Filed Feb. 13, 1922. Serial No. 536,057. 10 Claims. (Cl. 17—20.)



1. In a cutting machine, a casing having in its bottom an inlet port and a discharge port, a feed casing beneath said bottom communicating with said port, a conveyor in said feed casing, actuating means for said conveyor, and cutting mechanism at the end of said conveyor and in proximity to said inlet port.

1,416,205. DEHYDRATION. WILBERT J. HUFF, Pittsburgh, Pa., assignor to The Koppers Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 27, 1921. Serial No. 440,497. 8 Claims. (Cl. 260—42.)

7. The process of dehydrating water-containing pyridine, comprising distilling off a fraction from the pyridine, which fraction of the pyridine serves as a vehicle to carry off water, removing water from the distillate, returning the dehydrated pyridine distillate to the pyridine being distilled, and continuing the operation until the desired degree of dehydration is attained, substantially as described.

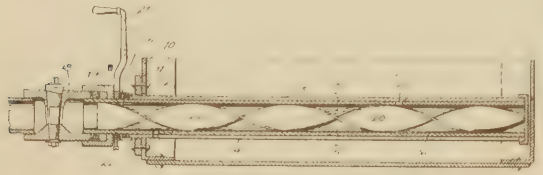
1,416,206. DEHYDRATION OF PYRIDINE. WILBERT J. HUFF, Pittsburgh, Pa., assignor to The Koppers Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 27, 1921. Serial No. 440,498. 8 Claims. (Cl. 260—42.)

1. The process of dehydrating water-containing pyridine, comprising adding to the pyridine a low boiling point liquid which upon distillation serves as a vehicle to carry off water and in an amount less than that required to form a binary constant boiling point mixture with all of the water, distilling, and renewing the low boiling point liquid as it is distilled off, and continuing the distillation until the desired degree of dehydration is obtained, substantially as described.

1,416,207. STEAM-BOILER CLEAN-OUT DEVICE. MIKE HUFFMAN, Des Moines, Iowa. Filed Sept. 23, 1919. Serial No. 325,793. 5 Claims. (Cl. 22—388.)

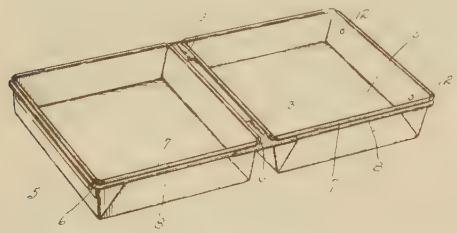
1. In a device of the class described, the combination of an outer stationary tube and an inner rotatable tube, said tubes being provided with openings that are capable

of registering or coinciding at different parts of the tubes during the time that the inner tube is rotated, and means



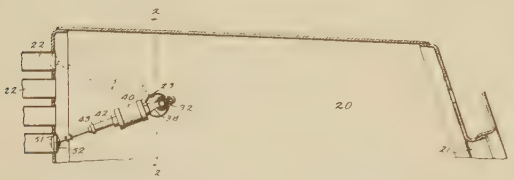
connected to the said inner tube, to be acted on by the water escaping through the said inner tube, for causing said inner tube to rotate.

1,416,208. BAKING PAN. JOSEPH GEORGE JACKSON, Chicago, Ill., assignor to Edward Katzinger Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 5, 1920. Serial No. 371,224. 18 Claims. (Cl. 53—6.)



1. A bake pan set comprising a plurality of individual pans, a wire frame cylindrical in cross-section disposed around the set of pans, and fastening members separate from and secured to the pans and located at adjacent pan corners for connecting the pans to said wire frame.

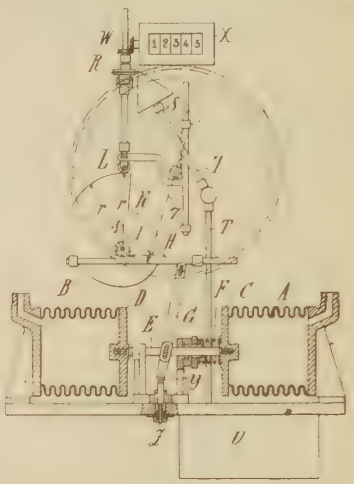
1,416,209. FLUE-CLEANING APPARATUS. EDWIN M. JENKINS and ROBERT E. JACKSON, Princeton, W. Va. Filed Mar. 24, 1919. Serial No. 284,771. 11 Claims. (Cl. 122—391.)



1. In apparatus of the character described, the combination with a boiler having flues and a fire box, said fire box having openings formed in its sides, of a rotatable support extending through said openings and arranged in the fire box, and a longitudinally extensible flue cleaning device adapted to be passed through one of said openings, said cleaning device being movable longitudinally of said support.

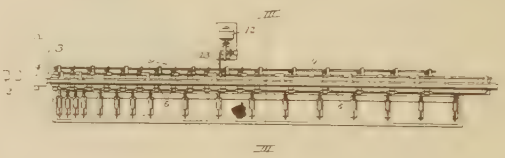
1,416,210. SPEED-INTEGRATING MECHANISM AND THE LIKE. KARL TORSTEN FREDRIK JUNG, Kalmar, and GUSTAF HENRIK PETERSSON, Stockholm, Sweden. Filed Dec. 1, 1913, Serial No. 804,078. Renewed Apr. 29, 1919. Serial No. 293,440½. 2 Claims. (Cl. 73—110.)

1. The combination in pressure responsive devices for ships, of a pair of bellows, a rod common to both bellows, a rack parallel to said rod, a driving member intermediate said rod and rack, resilient means secured to one of said bellows adapted to compensate pressure differences, indi-



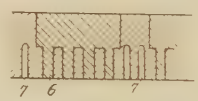
cating means and operative connections between said rack and indicating means, substantially as described.

1,416,211. AUTOMATIC CONTROL FOR MILLS. ALFRED E. JUPP and ROXIE CROOKS, Youngstown, Ohio. Filed Oct. 11, 1920. Serial No. 416,069. 10 Claims. (Cl. 164—49.)



1. The combination with a roller table, of shears, of a contact device operated by the shears, a gauge, a kick-off, and electrically operated means controlled by said contact device for operating said gauge and kick-off, substantially as described.

1,416,212. PROCESS OF PRODUCING INLAID WORK AND THE LIKE. JACOB KAUFMANN, Wilmersdorf, Germany. Filed Jan. 8, 1913. Serial No. 740,771. Renewed Mar. 27, 1917. Serial No. 157,855. 4 Claims. (Cl. 41—35.)



1. A process for the production of inlaid work comprising the following steps: forming depressions or recesses in one face of a metal plate; pressing together the plate and a sheet of wood veneer, and grinding away the wood until level with the face of the metal plate.

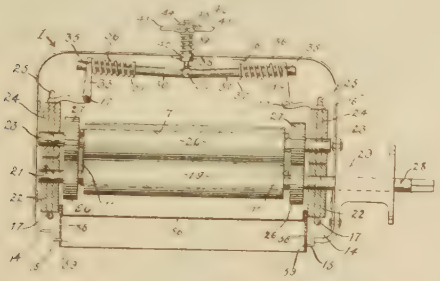
2. A process for the production of inlaid work comprising the following steps: forming depressions or recesses in one face of a metal plate forming further depressions in the base of the recesses; pressing together the plate and a sheet of wood veneer and grinding away the wood until level with the face of the metal plate.

3. A process for the production of inlaid work and the like comprising the following steps: etching depressions or recesses in one face of a metal plate; pressing the plate and a sheet of wood veneer together and grinding away the wood until level with the face of the metal plate.

4. A process for the production of inlaid work and the like comprising the following steps: etching depressions

or recesses in one face of a metal plate; etching further depressions in the base of the said recesses; pressing the plate into a sheet of wood veneer and grinding away the wood until level with the face of the metal plate.

1,416,213. CLOTHES WRINGER. ROBERT LELAND KINCAID, Syracuse, N. Y. Filed Mar. 3, 1920. Serial No. 362,910. 6 Claims. (Cl. 68—32.)

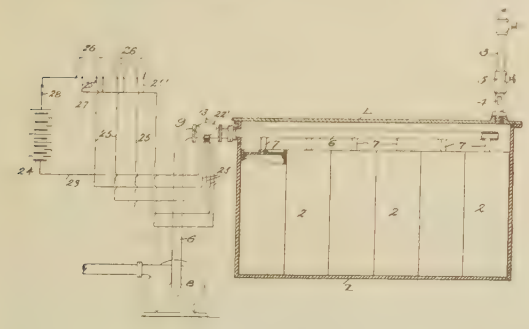


1. A wringer construction comprising opposing front and rear, substantially rectangular duplicate box-like sections fitted together and forming a casing, rolls, roll mechanism arranged within the said sections for applying pressure to the rolls, bearings for the rolls, and transverse fastening devices passing through and securing the sections together and supporting the bearings and the roll mechanism.

5. A water board for wringers formed of a sheet having oppositely inclined walls which meet at an apex substantially centrally of the water board and depending end flanges formed with lengthwise slots in combination with a wringer including a frame having inturned lips for entering the slots, substantially as and for the purpose specified.

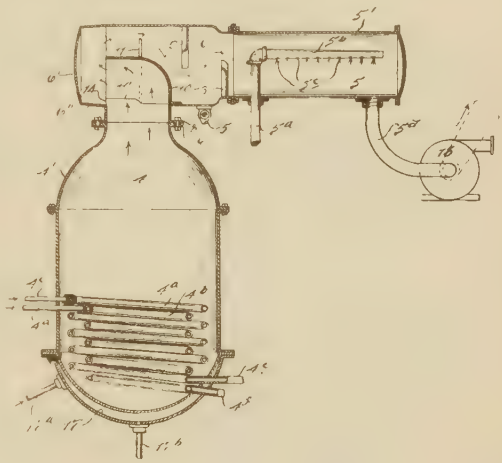
6. In a wringer, the combination of a casing, a pair of rolls, bearings for the rolls, one roll being movable toward and from the other, means for compressing said roll toward and from the other comprising a pair of horizontally extending links pivoted together at their opposing ends, a rod pivoted to the joint of said links, a screw threading in the casing of the wringer and encircling the rod, the rod being slidable endwise in the screw, and means for turning the screw and locking the rod from endwise movement relatively to the screw, said means being operable to unlock the rod from the screw, substantially as and for the purpose set forth.

1,416,214. STORAGE-BATTERY-VENTILATING SYSTEM. CHARLES CLIFTAIN KING, Bridgeport, Conn., assignor to The Lake Torpedo Boat Company, Bridgeport, Conn., a Corporation of Maine. Filed Sept. 5, 1919. Serial No. 321,863. Renewed Jan. 16, 1922. Serial No. 529,745. 3 Claims. (Cl. 204—29.)



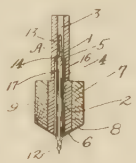
3. In a storage-battery ventilating system, comprising a battery-compartment, and storage-battery-cells mounted therein, a vent tube communicating with said battery-compartment and with said cells, means for causing a current of air through said vent tube, a damper arranged in said vent tube, an arm carrying electric contacts operated by said damper, conductors associated with said contacts, a battery in circuit with said contacts and said conductors, and electric lamps in said circuit.

1,416,215. METHOD OF RECOVERING SOLIDS FROM VAPORS AND MEANS FOR UTILIZING THE SAME. JOSEPH P. KIRKUP, Elmhurst, N. Y., assignor to The Borden Company, New York, N. Y., a Corporation of New Jersey. Filed July 31, 1920. Serial No. 400,559. 7 Claims. (Cl. 183—93.)



1. In apparatus for recovering solids from vapor a separator device comprising a chamber having through one side thereof an outlet and through the bottom thereof an inlet for the vapor; a conduit for vapor upwardly extending into said inlet; and, within the chamber, a unitary passageway for the vapor leading from said inlet upwardly curvingly towards an end of the chamber opposite to said outlet, and from adjacent said end leading still upwardly curvingly in reverse direction and thence continuing doubled and superimposed over itself towards said outlet, the interior surfaces of said passage way and chamber being conformed to return thereon dropped or precipitated solids to said inlet.

1,416,216. PHONOGRAPH NEEDLE. HOWARD LEGGE, Los Angeles, Calif. Filed Aug. 24, 1920. Serial No. 405,681. 6 Claims. (Cl. 274—38.)

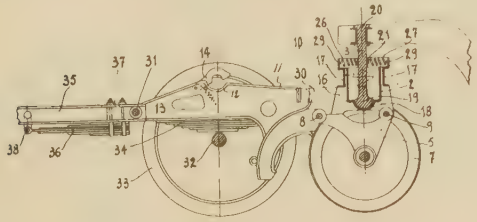


1. Improvements in phonograph needles, including, in combination, an inelastic member provided with a head and shank, there being a bore in said member, of a non-metallic member surrounding the head of said first named member, and a needle confined within said bore.

1,416,217. MEANS FOR COUPLING TRACTORS AND TRAILERS. MARCEL LEYTENS, Antwerp, Belgium. Filed Aug. 17, 1921. Serial No. 493,076. 5 Claims. (Cl. 280—33.1.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

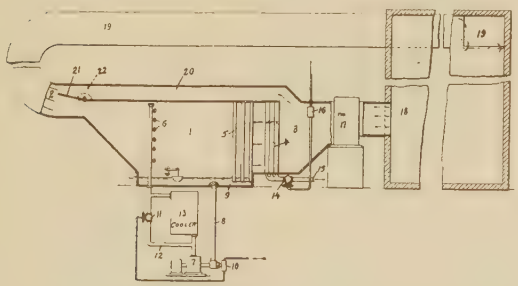
5. Improved means for coupling a motor tractor and a trailer, as claimed in claim 4, further characterized by the fact that the guide through which the pivot passes freely has a shape elongated transversely, in relation to the longitudinal axis of the trailer, so as to allow a limited transverse movement of the said guide in relation to the pivot and consequently a limited oscillation of the

fore-part of the trailer about the centre of the semi-spherical or like end of the pivot transversely in relation



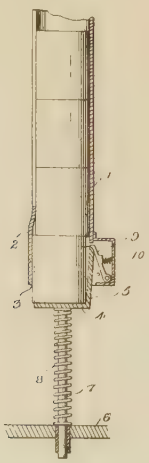
to the longitudinal axis of the vehicles, substantially described.

1,416,218. APPARATUS FOR DEHUMIDIFYING AIR. ADOLPH W. LISSAUER and ROBERT E. KEYES, New York, N. Y., assignors to W. L. Fleisher & Co., Inc., New York, N. Y., a Corporation of New York. Filed May 3, 1920. Serial No. 378,372. 2 Claims. (Cl. 34—19.)



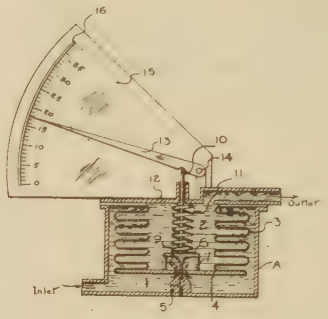
1. In combination with a drying chamber, an apparatus for dehumidifying air comprising a dehumidifier having an inlet and an outlet, a conduit connecting the drying chamber to the inlet of the dehumidifier, a mixing chamber at the outlet of the dehumidifier, means for delivering the air from the mixing chamber to the drying chamber, means establishing communication directly between the drying chamber and the mixing chamber, and means for varying in inverse ratios the cross-sectional areas of the conduit connecting the drying chamber to the dehumidifier and means establishing direct communication between the mixing chamber and the drying chamber.

1,416,219. DISPENSING APPARATUS. HERMAN C. LITCHFIELD, Waukegan, Ill. Filed May 28, 1920. Serial No. 385,016. 6 Claims. (Cl. 211—8.)



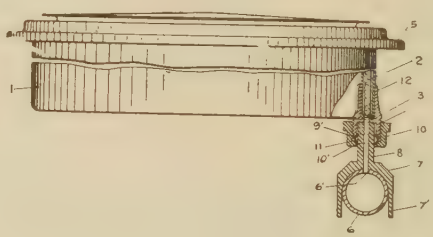
1. A dispensing apparatus comprising a tube supporting the articles to be dispensed, a receiver arranged at the lower end of the tube and having inclined wall for slightly displacing an article with relation to the tube when received by the receiver, a spring arranged to force the receiver into its proper relation with the tube, and a catch arranged to support the articles in the tube, when an article is being removed by the receiver.

1,416,220. FLOW METER. ALBERT R. LONG, Ballston, Va., and HAROLD H. TURNER, Hempstead, N. Y. Filed Mar. 6, 1920. Serial No. 363,767. 8 Claims. (Cl. 73—167.)



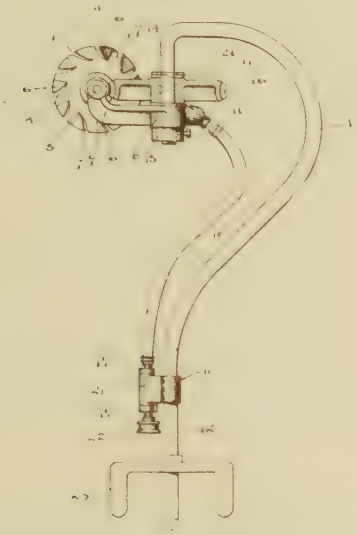
1. A device for indicating the flow of a fluid, comprising a main casing having inlet and outlet passages therein, an auxiliary chamber in the main casing and expansible under pressure, a thin plate having an orifice therein forming the base of said chamber, a diaphragm suspended from said casing and connected to said thin plate and forming the side walls of said chamber, a centrally located metering pin closing the orifice of the thin plate when the flow is zero to control the flow of the liquid, and indicating means for measuring the rate of flow of said fluid.

1,416,221. CONNECTION FOR LIQUID-FUEL BURNERS. GUSTAVE C. LORENZ, Milwaukee, Wis., assignor to A. J. Lindemann & Hoverson Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed July 22, 1921. Serial No. 486,713. 8 Claims. (Cl. 158—86.)



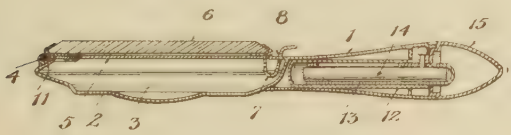
1. A connection between the liquid fuel supply pipe and the burner of a liquid hydrocarbon stove, comprising a member secured to the supply pipe and having an upwardly extending tubular portion, a tubular member connected with and extending downwardly from the burner, and telescoping with the said upwardly extending portion, an annulus of relatively soft material on one of said members, said annulus having beveled surfaces and adapted to act as a seal for the joint of the said telescoping members, one of the said members also having a beveled portion in contact with the said annulus, the respective angles of the two beveled portions being different in degree.

1,416,222. SPRINKLER. DANIEL F. MCGILL, Portland, Oreg. Filed Mar. 11, 1920. Serial No. 365,060. 6 Claims. (Cl. 299—68.)



6. A standard adapted to be inserted into the ground and having a vertical member supported from said standard and depending therefrom; and hydraulically operated sprinkler means mounted upon said member and having a planetary movement thereabout.

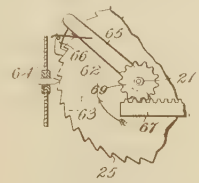
1,416,223. COMBINED MIRROR AND VANITY CASE. ROYAL MARCHER, New York, N. Y., assignor to Cohn & Rosenberger, Inc., New York, N. Y., a Corporation of New York. Filed Nov. 30, 1921. Serial No. 518,828. 1 Claim. (Cl. 132—85.)



An article of the class described comprising an article made in substantial similarity to a hand mirror, said article having a substantially flat, hollow [illegible] adapted to form a storage chamber, a hinged face on said head forming a lid therefor and having a mirror on its outer face and adapted to be swung away from the body of the article to uncover the entrance to the storage chamber, a laterally extending tubular portion on said head forming a handle therefor and adapted to act as a storage chamber, a removable end on said handle forming a continuation thereof, a tubular container of less thickness than the removable end, tubular means within the handle for receiving the tubular portion on the end and means for retaining the end portion of the handle on the handle.

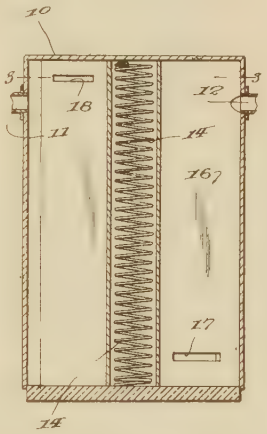
1,416,224. SIGNAL. GERARD R. MARSICO, Brooklyn, N. Y., assignor to Puriton Manufacturing Corporation, Brooklyn, N. Y., a Corporation of New York. Filed June 9, 1919, Serial No. 302,743. Renewed Aug. 27, 1921. Serial No. 496,165. 2 Claims. (Cl. 116—144.)

1. A device of the class described comprising a diaphragm, a rotor co-acting with the diaphragm to vibrate the same and provided with radial teeth at its periphery constituting the striking surface, a rotary driven device co-acting with said toothed surface between fixed points



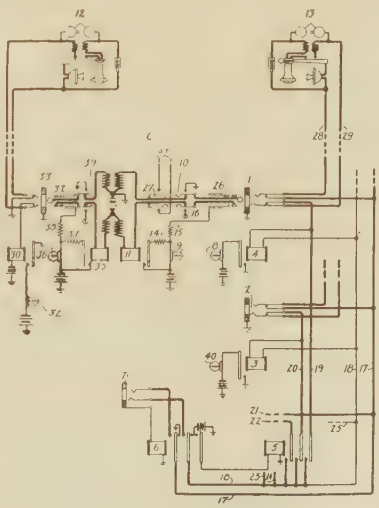
in the circumference of the rotor, and means for driving said device.

1,416,225. ELECTRIC HEATER. FRANCIS M. MAY, Louisville, Ky. Filed June 13, 1921. Serial No. 477,242. 2 Claims. (Cl. 219—39.)



1. An electrical heater comprising a casing closed at both ends, baffle walls in the casing having openings alternately at the upper and lower ends, an electric heating element disposed vertically and centrally within the casing, an electric heating element in the bottom of the casing, means for delivering a current of air into the casing to pass upwardly and downwardly of the baffle walls and through the openings thereof, and means for conducting the heated air from the casing to a point of use.

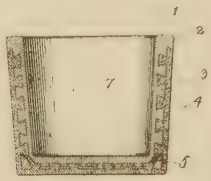
1,416,226. TELEPHONE-EXCHANGE SYSTEM. HENRY L. MEADE, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed July 14, 1920. Serial No 396,133. 8 Claims. (Cl. 179—72.)



1. In a telephone exchange system, a group of associated subscribers' lines, a terminal jack for each sub-

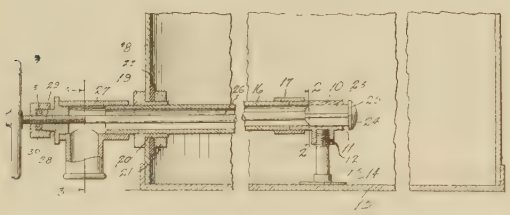
scriber's line, a grouping jack, associated with all of the lines of the associated subscribers, a cord circuit for connecting any two jacks, and means for establishing through the grouping jack a common conversational connection between any one of the associated subscriber's lines and the remaining subscribers' lines in said group.

1,416,227. BOTTLE STOPPER. CORTEZ MERRILL, Oelwein, Iowa. Filed Jan. 27, 1921. Serial No. 440,443. 2 Claims. (Cl. 215—47.)



1. A bottle stopper including a hollow body member having an annular flange at its open end, a plurality of ribs arranged circumferentially of the body upon its side walls and bottom portion, the outer face of said ribs terminating short of the flange or the body, and composition matter pressed into the body to a thickness of the space between the outer edge of the flange and the faces of the ribs to provide a smooth uniform surface.

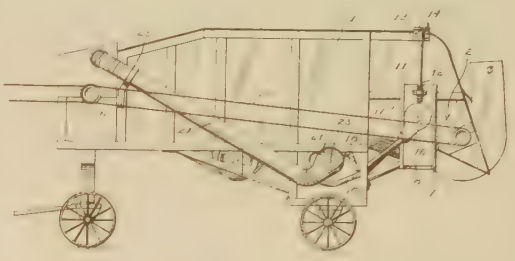
1,416,228. CISTERN OUTLET. HENRY M. MINNIS, Wylie, Tex. Filed Sept. 29, 1920. Serial No. 413,593. 1 Claim. (Cl. 137—21.)



The combination with a tank, of an upstanding pedestal arranged in the central portion of the tank, a substantially horizontal valve casing provided with a boss secured to the pedestal, an approximately horizontal pipe extending generally radially within the tank and projecting through the side thereof to the exterior of the same, a coupling for detachably connecting the end of the pipe and the end of the valve casing, means for effecting a water-tight joint between the pipe and the wall of the tank, a T coupling mounted upon the outer end of said pipe exteriorly of the tank, a valve body slidably mounted within the valve casing and having an enlarged head at one end thereof to engage the end of the valve casing, said valve body having longitudinal grooves, a stem connected with the inner end of the valve and extending through the pipe and having screw threaded engagement with a portion of the T-coupling, and means to turn the stem.

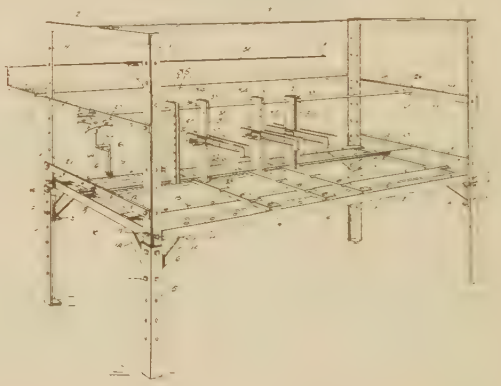
1,416,229. BLOWER. JOHN H. MORGAN, Eldorado, Okla. Filed Sept. 11, 1920. Serial No. 409,618. 2 Claims. (Cl. 302—17.)

1. The combination with a threshing machine, of a guiding frame mounted thereon, a carrier vertically movable in said frame, a blower mounted on said carrier, an elbow fitted about the discharge end of the tailings



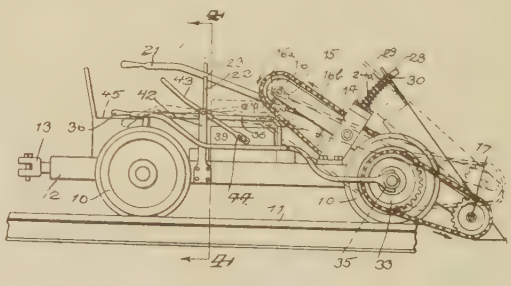
trough of the threshing machine, and means connecting the blower with the interior of the said elbow at the sides of the tailings trough.

1,416,230. BOX-NAILING FORM. ERNON V. OLIVER, Portland, Oreg., assignor of five-twelfths to Hans Peterson, Portland, Oreg. Filed Jan. 4, 1921. Serial No. 434,880. 15 Claims. (Cl. 144—295.)



1. In an apparatus for the purpose set forth, the combination of end frames, a bench supported by and between said end frames, supporting members extending between the end frames, posts mounted on said supporting members above the bench, and box-end-engaging clamp carried by said posts.

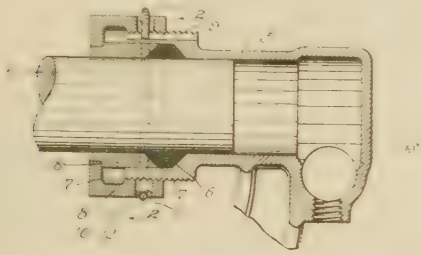
1,416,231. TRACK-CLEANING DEVICE. OLE J. OLSON, Nashua, Mont., assignor of one-half to Peter R. Rost, Glasgow, Mont. Filed Mar. 2, 1921. Serial No. 448,990. 2 Claims. (Cl. 37—59.)



1. In a track cleaning device, a wheel supported frame, an inclined conveyor frame, side members pivotally connected therewith intermediate their ends, shafts rotatably engaging the ends of said side members, a conveyor mounted thereon, a scraper embodying angular side portions pivotally engaging the side members of the frames

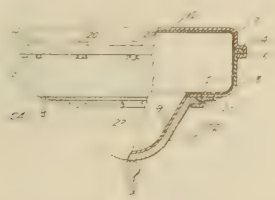
adjacent the lower ends thereof, a blade carrying shaft rotatably engaging the side portions of the members, means for adjusting the angular position of the conveyor, a connection between a wheel of the frame and one of the conveyor shafts, a connection between a wheel of the frame and the blade carrying shaft, and a yieldable connection between the frame and the upper end of the scraper forcing the lower end of the scraper downwardly.

1,416,232. PACKING GLAND. ALDEN E. OSBORN, New York, N. Y. Filed June 19, 1920. Serial No. 390,179. 1 Claim. (Cl. 286—1.)



In a packing gland, the combination with a pump barrel, or the like, having an exteriorly screw threaded end portion, provided with an intersecting keyway, and an interiorly threaded gland nut, engaged over the screw threaded end portion of the pump barrel, or the like, said gland nut having an annular positioning shoulder and a plurality of peripheral openings adjacent said shoulder, and a spring locking ring engaged about the gland nut, over said openings and positioned thereon by engagement with the annular shoulder, said spring ring having an angularly inturned lug to project through a selected one of the peripheral openings into engagement with the keyway aforesaid.

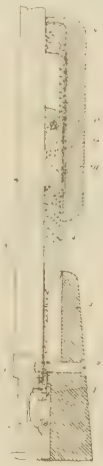
1,416,233. AIR-CUSHION CONSTRUCTION. MAGNUS PETTERSON, Long Beach, Calif. Filed Jan. 20, 1920. Serial No. 352,824. Renewed Mar. 2, 1922. Serial No. 540,571. 2 Claims. (Cl. 267—65.)



2. In an absorber, the combination of a rigid container comprising a bottom and a cover having a slip locking means, said bottom having an opening with the walls thereof formed with a double offset, a ring filling the first offset to lie flush with the inner wall of said bottom and permanently secured thereto, said ring forming with the second offset a clincher pocket; a closed resilient lining in said container and protruding through said opening; and a flexible casing to cover the protruding part of said lining, said casing having a lateral bead to engage said pockets.

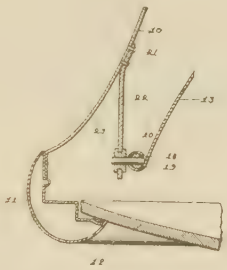
1,416,234. RIFLE. NICOLAS PIEPER, Liege, Belgium. Filed June 22, 1920. Serial No. 390,969. 3 Claims. (Cl. 42—16.)

1. In a rifle, in combination, a barrel, a bolt, a grip member slidably mounted on the barrel and connected to the bolt and means for locking the sliding grip when the bolt is in firing position comprising a laterally movable plunger adapted to extend into aligned apertures in the



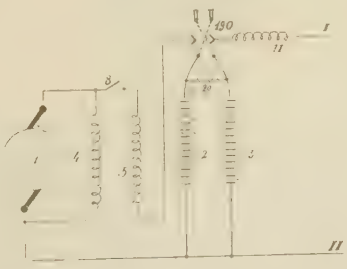
grip member and barrel and to be manually disengaged from one of said apertures, and a spring normally tending to move said plunger into locking position.

1,416,235. HEADLIGHT. TRUMAN W. POST, Providence, R. I., assignor to Willys Corporation, Toledo, Ohio, a Corporation of Delaware. Filed Sept. 12, 1917. Serial No. 190,974. 10 Claims. (Cl. 240—41.)



1. A device of the class described, comprising the combination of a casing; a reflector; a wire bent to the form of a circle and disposed at the forward periphery of said reflector, the forward edge of said reflector being bent around and embracing said wire to form a stiffening bead; reflector trunnions set into and secured to said wire and stiffening bead; and bearings for said trunnions carried by the casing.

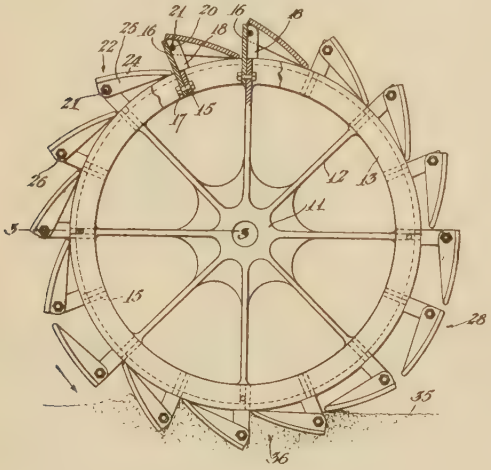
1,416,236. ELECTRICAL SYSTEM. FRANKLIN PUNGA, Liege, Belgium. Filed Sept. 25, 1911, Serial No. 651,074. Renewed Mar. 2, 1922. Serial No. 540,667. 5 Claims. (Cl. 171—313.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



1. In combination, a dynamo and two accumulators, a field winding for said dynamo and a demagnetizing field

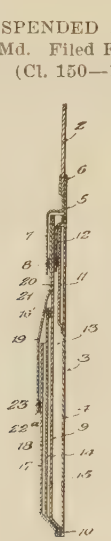
winding for the same, a reversing switch connected with like poles of the accumulators and an additional winding in which load current flows, said demagnetizing and additional windings being connected to the said reversing switch.

1,416,237. TRACTION DEVICE. ALFREDO SCOTTI, Whittier, Calif. Filed Apr. 6, 1921. Serial No. 458,897. 13 Claims. (Cl. 301—45.)



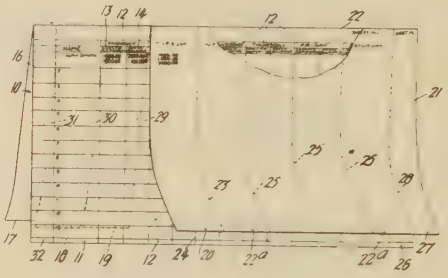
6. A traction device comprising a wheel consisting of a hub, spokes extending radially from said hub, a circular rib on each side of said spokes connecting the outer ends of said spokes, a flight mounted on the outer end of each spoke, flanges on said flights engaging said ribs, and a presser foot for each flight, each presser foot consisting of a curved plate, flanges on said plate and a bolt extending through the flanges on the flight and presser foot.

1,416,238. BODY-SUSPENDED BAG OR CASE. LOUIS SEILER, Baltimore, Md. Filed Feb. 25, 1921. Serial No. 447,814. 1 Claim. (Cl. 150—1.)



A compartment bag comprising an elongated flexible base 4, of flexible flaps 9, 14 and 17, respectively stitched to the base one upon the other, said flaps being of progressively decreasing length and unstitched along the upper ends thereof to form in the bag a plurality of independent differently sized pockets 13, 15 and 18, a strip 11 secured to the base 4 at the upper end thereof and forming in the large pocket of the bag a small pocket at the upper end thereof, a flap 12 stitched to the base for enclosing the open end of said small pocket, a flap 7 stitched to the base and forming a closure for the large pocket of the bag, and a closure 19 adapted to be stitched to the base for closing the pockets formed by the flaps 14 and 17.

1,416,239. LEDGER SHEET. JESSE A. B. SMITH, Stamford, Conn., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed May 16, 1919. Serial No. 297,469. 12 Claims. (Cl. 283—57.)

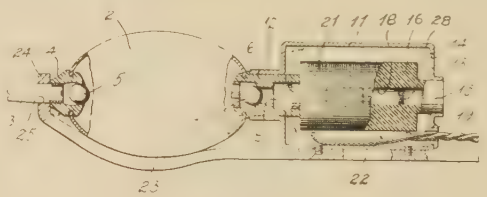


1. A ledger-sheet adapted for use in a printing and computing machine, divided into designated day columns on each face of the sheet and having a writing strip attached to the top of the sheet overlying a day column and adapted to be folded down on either face of the sheet, and when so folded down adapted to serve as a "pick-up" column for an adjacent day column.

1,416,240. CLEANING POWDER. JOHN W. SMITH, Minneapolis, Minn., assignor to United Stores Supply Company, Minneapolis, Minn., a Corporation. Filed Jan. 31, 1921. Serial No. 441,512. 2 Claims. (Cl. 87—5.)

1. A cleaning powder including a mixture of acid sodium sulphate and powdered wood.

1,416,241. CHIP BLOWER FOR DENTISTS. LEO SOBOL and GEORGE M. MARR, Brooklyn, N. Y. Filed May 6, 1919. Serial No. 295,250. 5 Claims. (Cl. 34—26.)

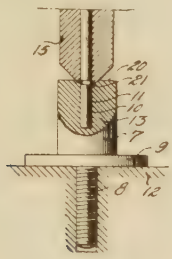


4. A dental chip blower comprising a bulb, a nozzle at the outlet end of the bulb, a fitting at the intake end of the bulb, a shell surrounding the fitting, the said fitting being provided with a longitudinal bore communicating with the bulb, a core fitted into the bore in the fitting and into the rear end of the shell, said core having a passage extending longitudinally therethrough and communicating with the bore in the fitting, the shell having an annular series of apertures in its rear end, the fitting having a plurality of radial apertures arranged near its rear end, a heating coil wound upon the core whereby air passing through and around the core will be heated prior to its entrance into the bulb.

1,416,242. CHEWING GUM. WILLIAM A. STEINEMANN, Los Angeles, Calif. Filed Feb. 7, 1920. Serial No. 357,035. 2 Claims. (Cl. 99—11.)

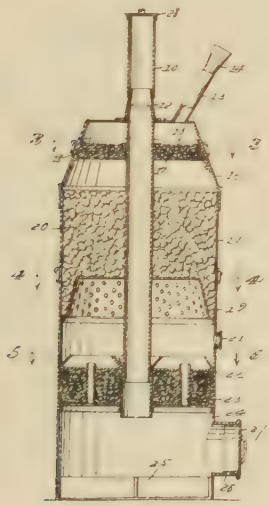
1. A chewing gum having as ingredients a binder, and commercial bran of which the flexible character of the fiber has not been destroyed.

1,416,243. METHOD OF SECURING SPARK-PLUG ELECTRODES TO CONDUCTING HEADS. WILLIAM S. THOMAS, Roselle Park, N. J., assignor to Thomas Spark Plug Co., Roselle Park, N. J. Filed Nov. 16, 1920. Serial No. 424,434. 2 Claims. (Cl. 29—148.)



1. The herein described process of securing an electrode rod to a head which consists in providing said head with a cavity, then inserting a portion of the electrode rod in said cavity and finally forcing a portion of the material of said head laterally so as to indent the material of said electrode rod.

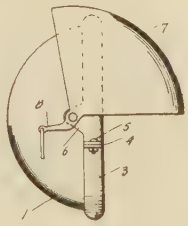
1,416,244. VAPOR MEDICATING APPARATUS. HENRY B. THOMPSON, San Antonio, Tex., assignor of one-third to Kenna D. Thompson and one-third to John Fitzsimmons, San Antonio, Tex. Filed Feb. 16, 1921. Serial No. 445,515. 4 Claims. (Cl. 128—192.)



1. In a vapor medicating apparatus, a casing having a combustion chamber with pipes extending therefrom, pans through the bottom of which the pipes project and discharge, a perforated partition above the pans, said partition having a converging wall, a chemicalized substance above the partition, wire mesh disks in spaced relation to each other above the chemicalized substance, a vapor filtering agent between the said disks, an inhalant tube in communication with the top of the casing, and a flue pipe extending through the top of the casing, the chemicalized substance, the partition and the pan supports, the said flue pipe being in communication with the combustion chamber.

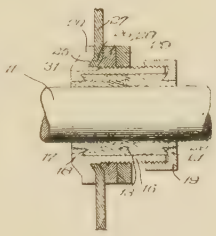
1,416,245. ADJUSTABLE LIGHT VISOR. CHARLES H. TUMEY, Sr., San Antonio, Tex. Filed Apr. 13, 1920. Serial No. 373,514. 1 Claim. (Cl. 240—45.6.)

A headlight visor comprising a flexible annular attaching band transversely curved to receive the convex outer face of a lens supporting ring of a headlight and including a pair of detachably connected sections, one of said sections being of a greater length than the other sections and having its ends extending below the horizontal axis of the headlight, rearwardly extending ears formed on the



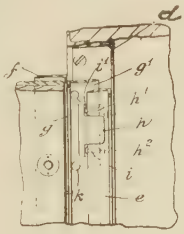
longest section and arranged in alinement with said axis of the headlight, and a visor pivoted to said ears rearwardly of the band to permit said visor to cover the upper portion of the head light when in a full light deflecting position and thereby prevent the escape of light rays over the top of the visor.

1,416,246. BEARING. JOSEPH A. V. TURCK, Wilmette, Ill., assignor to Felt & Tarrant Mfg. Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 21, 1919. Serial No. 278,539. 7 Claims. (Cl. 64—24.)



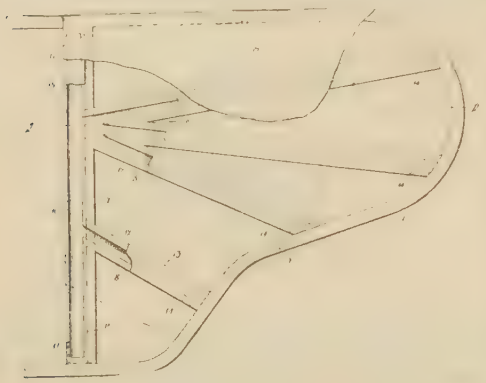
1. A bearing comprising an impregnated fiber body slit longitudinally and a housing within which the fiber body is bodily inserted, said housing having a dovetail connection with said body, whereby said body is kept from deformation tending to cause the bearing to bind.

1,416,247. EXPANSION SHOE FOR ELEVATOR DOORS. BENJAMIN WEXLER, Brooklyn, N. Y., assignor to The Peelle Company, Brooklyn, N. Y., a Corporation of New York. Filed Sept. 1, 1921. Serial No. 497,470. 8 Claims. (Cl. 189—46.)



1. An expansion shoe for elevator doors, embodying therein a forked member adapted to straddle the guide rail for a door, a flame angle carried by the door, means whereby said forked member slidably is mounted upon said flame angle, and a collapsible support for said member bearing against the side of the door, whereby in the event of the expansion of the door from heat, the stresses developed will collapse said support and permit said shoe to have movement on the flame angle towards the door.

1,416,248. GRAND PIANO. JAMES H. WILLIAMS, Baltimore, Md. Filed Mar. 5, 1920. Serial No. 363,428. 7 Claims. (Cl. 84—189.)

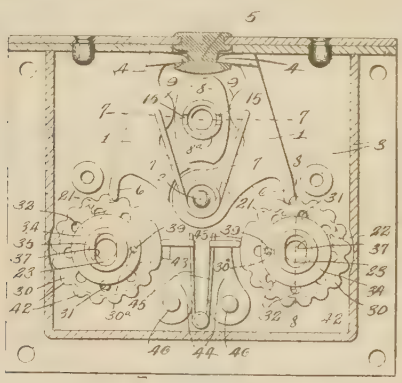


1. In a grand piano, the combination of a transverse frame member having a groove formed therein, a strip covering said groove and forming a wall for closing the same, said groove having outlets and constituting an air chamber responsive to exterior sound waves, and a sound board mounted at its front edge on said strip.

1,416,249. CATALYZER. KARL HEINRICH WIMMER, Holzhafen, Bremen, Germany, assignor to Hydrogenated Oil Company, St. Louis, Mo., a Corporation of New York. Filed Feb. 13, 1913. Serial No. 748,212. 10 Claims. (Cl. 23—28.)

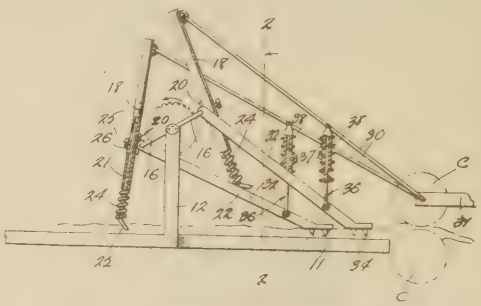
1. The process of manufacturing catalysts, which consists in enveloping with a protective substance, a formate of a metal which in the free state can serve as a catalyst for the hydrogenation of fatty oils, which formate is not in itself capable of serving as the catalyst for such operation, and thereafter reducing the same by heat, under reducing conditions substantially as described.

1,416,250. COMBINATION LOCK. WALTER WISMIEWSKI, Syracuse, N. Y., assignor of one-half to Joseph Baramski, Syracuse, N. Y. Filed June 30, 1921. Serial No. 481,493. 1 Claim. (Cl. 70—55.)



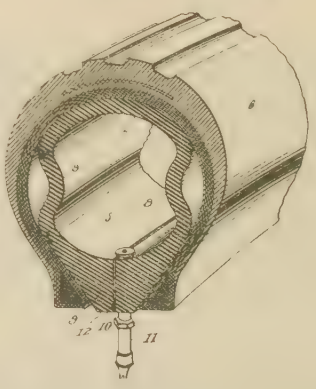
In a combination lock, the combination of a pair of tumblers mounted upon a common axis and having shoulders on opposite sides of said axis, a spring mounted on said axis and tending to move them into operative position, an operating member mounted between the tumblers and acting to force the same on their pivots out of operative position, sets of rotary disks, each set arranged with their peripheries engaged with one of the shoulders to prevent movement of the tumblers, the disks having peripheral notches arranged to be brought into alinement with each other and with the shoulder of one of the tumblers for permitting movement with the tumbler with which the shoulder is associated, a handle for each set of disks, the handle having a shank, the disks being mounted concentric with the shank, a third disk associated with each set, and mounted concentric with the shank of the handle and connected thereto to rotate therewith, means for permanently connecting the third disk to one of the notched disks, means for connecting the notched disks together by a lost motion connection whereby movement in one direction of the notched disk connected to the third disk takes up the lost motion and rotates the other notched disk therewith and permits movement of the notched disk connected to the third disk in the opposite direction relatively to the other notched disk, each third disk having a series of rounding notches and a dwell portion, a pair of spring pressed followers arranged between the third disk and below the axis of the tumblers and coacting with the notches and the dwell portion of the third disks respectively, and being normally engaged with said dwell portion, and the disk connected to each third disk being connected to the third disk to permit that disk connected to the third disk to be adjustably shifted relatively to the third disk without changing the position of the third disk whereby the follower normally engages the dwell portion of the third disk in all changes of the combination.

1,416,251. SELF-FEEDING ATTACHMENT FOR ENSILAGE CUTTERS. HENRY A. BILLINGSLEY, Covington, Ohio. Filed Nov. 12, 1920. Serial No. 423,592. 3 Claims. (Cl. 130—29.)



1. A feeder comprising a shaft having a crank, a feeding member connected intermediate its ends to said crank and comprising a tubular section and a rod slidable within the tubular section, material engaging teeth carried by said rod, a second feeding member connected to said crank and having its forward portion provided with material engaging teeth, and means to yieldably press said teeth into engagement with the material.

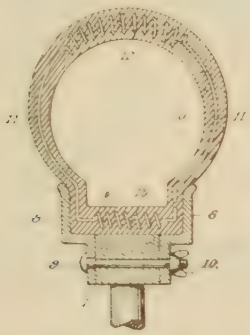
1,416,252. PNEUMATIC VEHICLE TIRE. HERBERT S. BLYNT, Yale, Okla. Filed May 23, 1921. Serial No. 471,681. 6 Claims. (Cl. 152—13.)



1. As an article of manufacture, an endless inner tube for pneumatic tires having an external diameter greater than the internal diameter of the casing with which it is

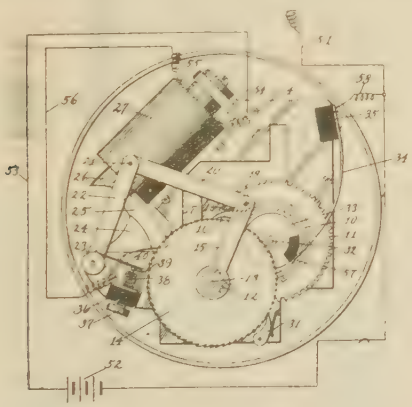
to be used and having an inwardly extending annular fold or depression whereby, when the tube is inflated within said casing, said tube is caused to be placed under compression transversely, said tube being circumferentially split at its inner portion.

1,416,253. PNEUMATIC VEHICLE TIRE. JOHN BOBEK, Trevorton, Pa. Filed Nov. 21, 1921. Serial No. 516,662. 4 Claims. (Cl. 152—8.)



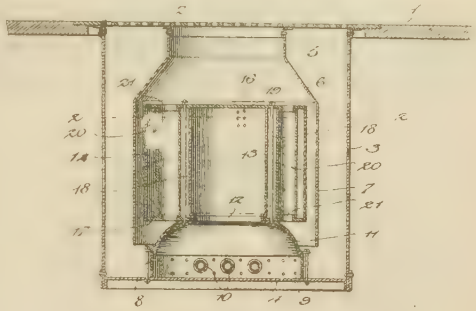
4. In combination, a fluid-tight hollow elastic tire casing having laterally elastic and radially non-elastic spring elements embedded therein, said spring elements being of substantially ring-shape in elevation and arranged radially and transversely in adjacent side by side relation and being constructed of resilient wire having non-elastic portions embedded in the side portions of the casing and elastic portions embedded in the tread and inner portions of the casing.

1,416,254. SELF-WINDING CLOCK MECHANISM. CHARLES E. BOILLOT, Brooklyn, N. Y. Filed July 12, 1919. Serial No. 310,389. 1 Claim. (Cl. 58—41.)



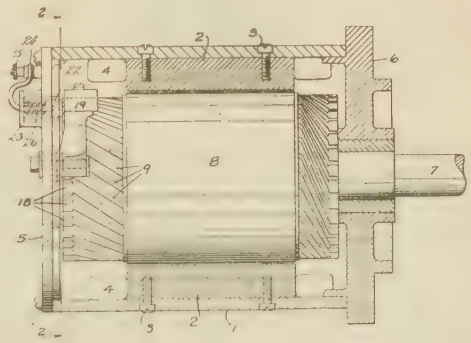
In a clock, the combination of a train of gearing, a spring mounted on a shaft to operate said train, an electromagnet, a pair of circuits through a source of electrical energy connected to said electromagnet, an armature for said electro-magnet, a ratchet wheel to rotate said shaft to wind said spring, a pawl actuated by said armature through linkage to rotate said ratchet wheel, a circuit breaker for said circuits actuated by the movement of said armature to the attracted position, a spring held arm operable by a gear of said train to connect said source of energy to said electromagnet, and to break said connection by the rotation of said gear upon partial winding of said spring, and a disc mounted upon said shaft, means to contact with said disc to maintain the connection of said electromagnet with said source of power through the other of said circuits to complete said winding, and means to cause said first named means to be made ineffective upon completion of said winding.

1,416,255. HEATER. ROBERT G. BOONE, Asbury Park, N. J., assignor to Richard Stockton and George G. Bourne, New York, N. Y., and James Kerney, Trenton, N. J. Filed July 2, 1920. Serial No. 393,531. 1 Claim. (Cl. 126—116.)



The combination with a register, of an outer shell secured to said register, a base plate carried by said shell, a cylindrical member extending from said register within said shell having a frusto-conical portion and provided with a depending cylindrical apron terminating short of said base plate, a circular member secured to said base plate and provided with a plurality of openings, a burner located upon said circular member, a dome like member seated upon said circular member and provided with an aperture in the top thereof, an inner drum engaging said dome like member and provided with a plurality of openings, an outer drum, a plate engaging the top of said drums having a series of openings formed therein and provided with depending circular flanges, a plate surrounding the upper end of said dome like member and engaging said drums, the last mentioned plate having a plurality of openings formed therein and provided with upstanding flanges, a plurality of tubes located between said drums and surrounding the flanges aforesaid, one of said tubes having a plurality of openings formed therein, a frusto-conical shaped member located in the last mentioned tube and a partition disposed between said drums and adjacent to the last mentioned tube.

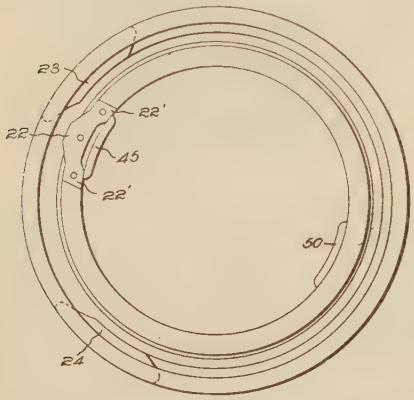
1,416,256. DYNAMO-ELECTRIC-MACHINE ARMATURE. HENRY E. BORGER, Newark, N. J., assignor to Splitdorf Electrical Company, Newark, N. J. Filed Dec. 30, 1916. Serial No. 139,719. 14 Claims. (Cl. 171—206.)



1. In an armature for an electric motor or dynamo, the combination of, a magnetic element having a continuous winding consisting of a plurality of layers of conductors arranged about the periphery of said magnetic element and projecting exteriorly beyond both ends thereof; said exteriorly projecting ends having no insulation between conductors and having the ends of the different layers disposed diagonally to the axis of said armature and further having the conductor ends of the outer layer

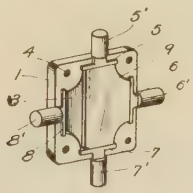
connected to an inner layer in such a way that said connected ends are spaced concentrically about the armature axis whereby brushes may be operated on the uninsulated ends or sides of said conductors, or on both.

1,416,257. SPRING-NEEDLE KNITTING MACHINE. GEORGE P. BOSWORTH, Central Falls, R. I., assignor to Hemphill Company, Central Falls, R. I., a Corporation of Massachusetts. Filed Oct. 30, 1919. Serial No. 334,477. 30 Claims. (Cl. 66—26.)



1. In combination, a series of spring beard needles, pressers and presser cam means therefor knitting cams for said needles, web holders, yarn feeding means, web holder advancing cams on opposite sides of said yarn feeding means for reciprocating knitting an outthrow web holder cam movable circumferentially with respect to said advancing web holder cams so as to cooperate respectively with said advancing cams to withdraw said web holders, said presser cam means being relatively movable circumferentially with respect to at least one of said web holder cams.

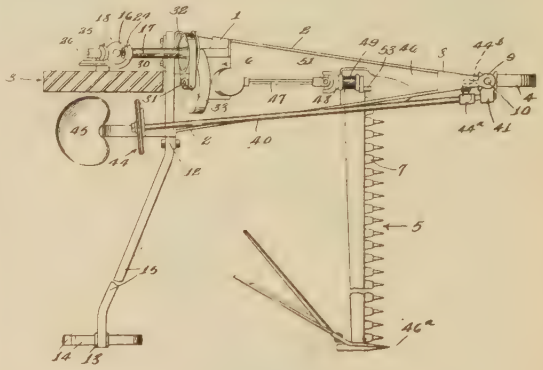
1,416,258. SELF-RENEWING FUSE. STEPHEN H. BROOKS, Cleveland, Ohio. Filed Aug. 11, 1919. Serial No. 316,652. 1 Claim. (Cl. 200—124.)



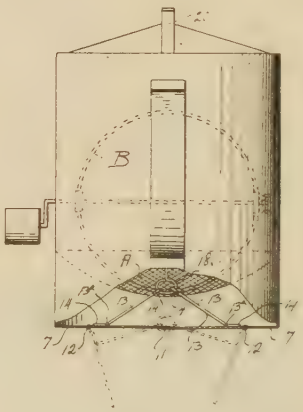
A renewable fuse comprising a casing having a chamber, contacts equi-distantly spaced about the perimeter of the chamber, and a gravitating fusible contact connector within the chamber disposed to flow upon fusing so as to connect contacts crosswise of the chamber.

1,416,259. AGRICULTURAL MACHINE. ALEXANDER T. BROWN, Syracuse, N. Y. Filed July 23, 1919. Serial No. 312,720. 1 Claim. (Cl. 56—25.)

In an agricultural machine, a frame, a steering wheel at the front end of the frame, a tractor wheel at the rear end of the frame in line with the front wheel whereby said wheels travel in substantially the same path, a cutting implement extending laterally from the frame, near the front end thereof and having a shoe in the rear of the steering wheel and a swath board arranged at the outer end of the cutting implement in the rear thereof to sweep a path for the tractor and steering wheels on the next run around the field, and a laterally extending frame member in the rear of the cutting implement and having a supporting wheel arranged in the rear of the swath board in the path swept thereby, substantially as and for the purpose described.



1,416,260. SIFTER. MILTON D. BROWN, San Francisco, Calif., assignor of one-half to Charles V. Barfield, San Francisco, Calif. Filed Aug. 17, 1920. Serial No. 404,266. 1 Claim. (Cl. 220—36.)

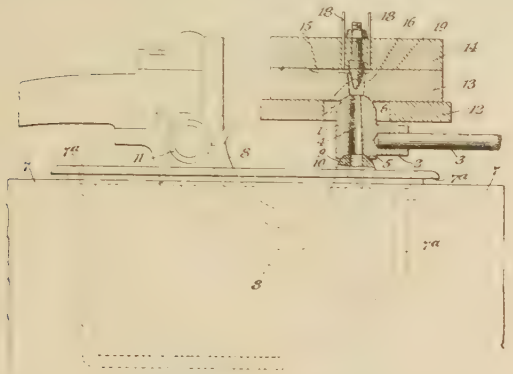


A floor sifter of the character described comprising a receptacle, sifting means disposed within said receptacle adjacent the bottom of the receptacle, a pair of plates hinged to said bottom, a link pivoted at one end to each of the plates adjacent the hinged connection of the plates, each of said links being extended upwardly within the receptacle and toward the inner edges of the plates, a socket disposed inwardly of the receptacle adjacent the top thereof, a rod slidable in said socket and beyond the bottom of the socket, the opposite end of the rod being formed into a relatively large loop, the opposite end of each of said links having an eye adapted to receive a portion of said loop, said eyes being arranged for movement toward and away from each other, and longitudinally of the loop whereby the links may move upon the loop from the lower intermediate portion thereof to the junction of the loop with the rod.

1,416,261. FEEDING DEVICE FOR DIE-CASTING MACHINES. GEORGE WALDEMAR BUNGAY, Brooklyn, N. Y., assignor to Acme Die Casting Corporation, a Corporation of New York. Filed Feb. 21, 1920. Serial No. 360,480. 4 Claims. (Cl. 22—57.)

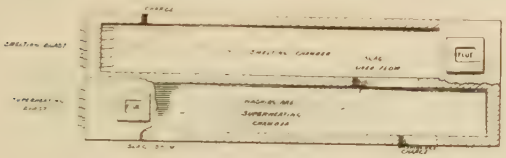
1. A die casting machine having in combination a discharge nozzle provided with an outlet, a die member hav-

ing an inlet port, a connecting member adapted to be clamped between the die member and the discharge noz-



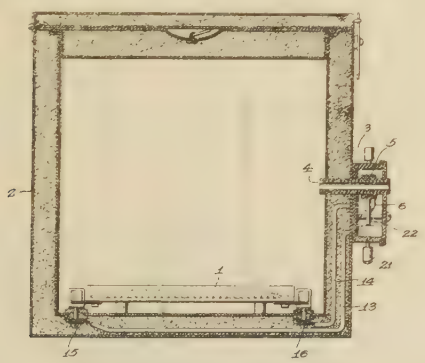
zle, said connecting member being provided with a tapered passage communicating with the inlet port of the die member and the outlet of said nozzle.

1,416,262. PROCESS AND APPARATUS FOR EXTRACTING COPPER FROM SLAG IN REVERBERATORY FURNACES. PERCIVAL PAGE BUTLER and HARRY HOWARD STOUT, Douglas, Ariz., assignors of fifty-five one-hundredths to Phelps Dodge Corporation, a Corporation of New York. Filed July 7, 1919. Serial No. 309,129. 29 Claims. (Cl. 75—62.)



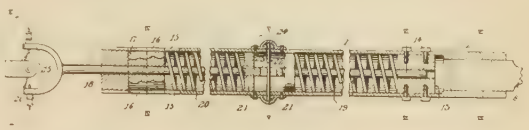
1. In the smelting of copper ores, the process which consists in fusing copper bearing slag with a washing ore at a superheating degree of temperature.

1,416,263. ELECTRIC FIRELESS COOKER. WILLIAM CAMPBELL, Detroit, Mich. Filed Dec. 5, 1921. Serial No. 519,976. 9 Claims. (Cl. 219—36.)



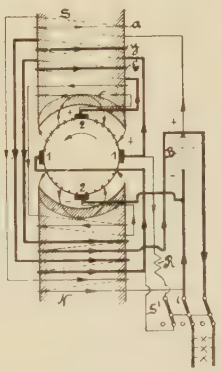
1. The combination with a closed chamber and heating means for said chamber, of a conduit leading from said chamber and open at its outer end to the atmosphere, and temperature responsive means out of the path of the heated fluid passing through said conduit for regulating said heating means.

1,416,264. YIELDABLE DRIVE SHAFT. ROBERT EARL CARTER, Sykesville, Md. Filed Dec. 27, 1920. Serial No. 433,171. 5 Claims. (Cl. 64—96.)



5. A yieldable drive shaft, including a driving element, a driven element, and means connecting said elements for permitting limited rotation of the driving element relative to the driven element under gradually increasing resistance, said connecting means including a tube in which said driving element is slidably and rotatably mounted, means to impart longitudinal movement to and to permit limited rotation of the diving element relative to said tube upon rotation of said driving element, and means to resist the longitudinal movement of said driving element, said last named means including a pair of compression springs mounted in said tube and resisting longitudinal movement of the driving element in either direction, guide plugs for the driving element secured in the tube and each forming an abutment for the outer end of one spring, and abutment disks for the inner ends of the springs keyed on the driving element and freely movable in the tube, slots being provided in one end of the tube, one of said guide plugs having fins slidable into said slots, and another of said plugs being threaded into the tube behind the fin carrying plug to secure the latter in place, said tube having an angular bore at its other end, and the driven element having an angular end fitting in the angular bore.

1,416,265. INHERENTLY-REGULATED DIRECT-CURRENT DYNAMO. HANS CHARLET, Krefeld, Germany. Filed July 8, 1920, Serial No. 394,849. Renewed Mar. 29, 1922. Serial No. 547,906. 7 Claims. (Cl. 171—223.)



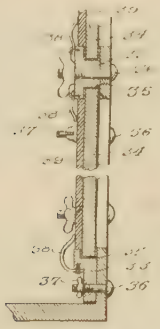
1. An inherently regulated direct current dynamo, adapted to be used at will as either a generator or as a motor, embodying a constantly excited field with main current winding and additional exciting windings, brushes, one set being located in the neutral zone of the primary field, the other set of said brushes being in the neutral zone of the secondary field, the primary field required for producing the working current being produced by the main current winding.

1,416,266. SMOKE-FILTERING MEDIUM. ALBERT L. CLAPP, Danvers, Mass. Filed July 5, 1918, Serial No. 243,390. Renewed Oct. 12, 1921. Serial No. 507,356. 8 Claims. (Cl. 183—44.)

6. A smoke-filtering medium consisting of a porous loosely matted sheet consisting of manila rope pulp, kiesel-

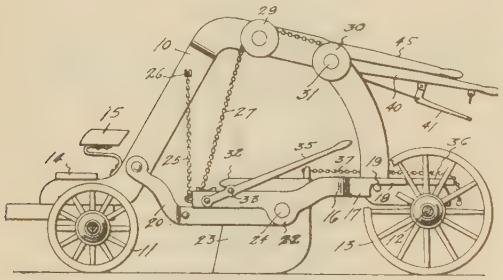
guhr and comminuted wood in intimate admixture and in the following proportions, to wit, about 50 parts pulp, 25 parts kieselguhr and 25 parts comminuted wood.

1,416,267. ADVERTISING CABINET. CLARENCE E. CLOSSON, Potlatch, Idaho. Filed Sept. 20, 1920. Serial No. 411,520. 1 Claim. (Cl. 40—63.)



An advertising cabinet including a cabinet body provided in a wall thereof with a panel, cleats secured to said wall in the rear of the panel, a closure pane for the panel held by said cleats, an advertising sign visible through the pane, and resilient clips secured to said cleats and bearing against the sign clamping the sign against the pane.

1,416,268. EXCAVATOR AND SCRAPER. MICHAEL COLLINS, Fort Worth, Tex. Filed June 6, 1921. Serial No. 475,509. 6 Claims. (Cl. 214—72.)

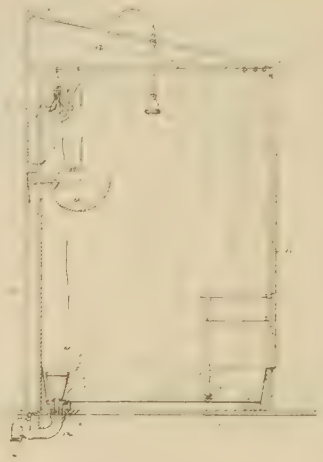


1. In an excavating and scraping machine, an arch shaped frame supported on ground wheels, a swinging frame mounted on the arch frame, a supporting frame pivoted to the arch frame, an excavating and scraping pan pivoted to the swinging and supporting frames, means for elevating the swinging and supporting frames and the pan, whereby the pan is tilted to a transporting position, and means for tripping the pan for permitting the same to swing downwardly to discharge its load.

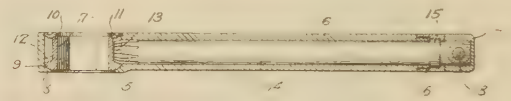
1,416,269. PROCESS FOR SEASONING WOOD. ATLAS O. CRAIL, Warren, Ohio. Filed Nov. 26, 1920. Serial No. 426,498. 1 Claim. (Cl. 99—12.)

The process of seasoning and shrinking wood consisting in boiling it six hours in an enclosed vat containing a solution of water and five per cent salt; immediate removal therefrom to a kiln heated to 250° F. and its removal from said kiln at the end of forty-two hours.

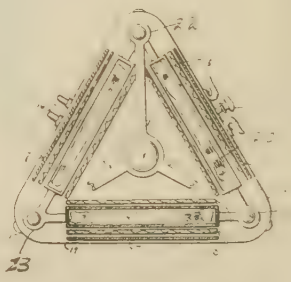
1,416,270. BATHING APPARATUS. WILLIAM L. DEMING, Salem, Ohio. Filed Aug. 25, 1919. Serial No. 319,718. 17 Claims. (Cl. 4—26.)



1. In a bathing apparatus the combination with a conduit for discharging water, of a base receptacle, a curtain support above the same, a curtain carried by the support and a slidable member connecting the cover with the support.

1,416,271. WRENCH. CONSTANT L. DEVOS, New York, N. Y. Filed Jan. 7, 1922. Serial No. 527,540. 3 Claims. (Cl. 81—56.)

1. A socket wrench comprising a ring-like housing having a tubular handle projecting laterally therefrom, a flange at one end of said housing forming a socket seat, a socket having a flange one side of which is supported on said seat, the opposite side of said flange being toothed to form a gear, a removable keeper ring at the other end of said housing to hold said socket on said seat, a shaft having a gear at one end to coact with the gear of said socket, said shaft and gear being insertible and removable through said tubular handle, means for holding said shaft in position to hold said gears in mesh, and means for turning said shaft within said handle to rotate said socket in said housing.

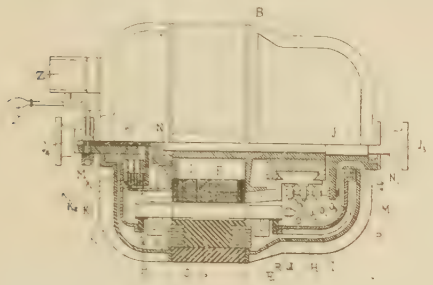
1,416,272. ELECTRIC TOASTER. EDMOND C. FLORIOT, New York, N. Y. Filed Nov. 5, 1921. Serial No. 512,978. 6 Claims. (Cl. 219—19.)



1. In a toaster, the combination of a base, with a plurality of upright posts mounted thereon, electric heat-

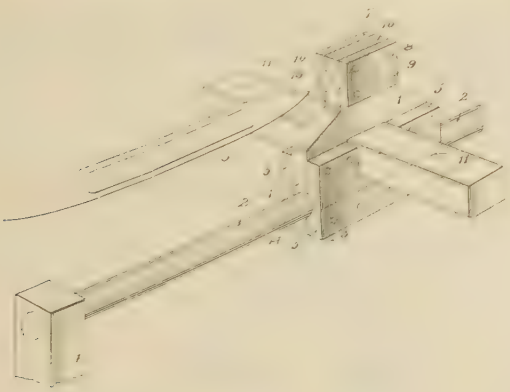
ing elements arranged in pairs, a toast basket, lugs on said basket through which said uprights pass, a coil spring on each of said uprights which holds said basket normally in an elevated position, a downwardly depending lug on the bottom of said toast basket, a detent which engages said lug and holds said basket in a depressed position whereby the toast-carrying portions are located intermediate the heating elements.

1,416,273. POWER TRANSMISSION AND CONTROL. ETHELBERT M. FRASER, Yonkers, N. Y. Filed Mar. 16, 1916. Serial No. 84,509. 35 Claims. (Cl. 290—10.)



2. An electric machine comprising a rotatable armature provided with a winding and a core, a stationary field structure, and an independently rotatable second winding interposed between said armature and said field structure and provided with a commutator, the core of said armature being magnetically common to said armature and said second winding and carrying substantially all of the flux supplied by the field.

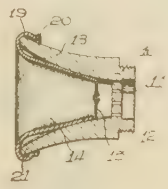
1,416,274. PICKER FOR LOOMS. MAURICE B. FREDERICKS, Waltham, Mass., assignor, by mesne assignments, to Joseph L. Levy, New York, N. Y. Filed Apr. 13, 1921, Serial No. 461,039. Renewed Apr. 11, 1922. Serial No. 551,471. 2 Claims. (Cl. 139—21.)



2. A device of the class described comprising a picker having a central body portion of a single thickness, reinforcing strips secured at the ends of said body portion and forming thickened portions, a guide receiving aperture extending through one of said thickened portions, a pair of plugs of fibrous material inserted in the other thickened portion and a reinforcing binder embracing the thickened portion in which the plugs are inserted.

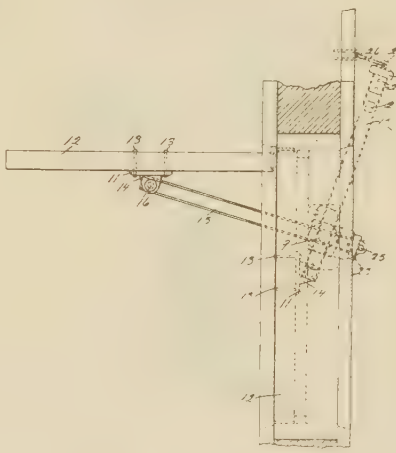
1,416,275. SANITARY TELEPHONE MOUTHPIECE. ABRAHAM ALBERT FREEDMAN, Chicago, Ill., assignor of one-half to Saul S. Soloway, Chicago, Ill. Filed May 11, 1921. Serial No. 468,553. 3 Claims. (Cl. 179—185.)

1. The combination with a telephone mouthpiece, of a sanitary cap therefor comprising a tapering body composed of relatively thick paper provided with an end wall



of thin paper perforated, and a flange on one end of said body for engagement with the mouthpiece.

1,416,276. DOOR STOP AND HOLDER. CHARLES ALBERT FRENCH, Madison, Wis. Filed July 12, 1920. Serial No. 395,755. 3 Claims. (Cl. 292—278.)

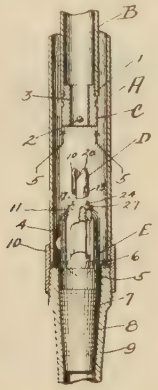


1. In a door holder, a door plate provided with two outwardly extending ears, means for attaching said plate to a door, a jamb plate adapted to be secured to the head jamb of a door frame and provided with a circular recess in the top portion thereof and a similar recess in the bottom portion, a race or sleeve provided with a circular plate on the upper side approximate the front end thereof, said circular plate revolubly disposed within the lower recess in said jamb plate, an aperture located in the lower side of said sleeve, two depending lugs integral with said sleeve and disposed on either side of said aperture, a latch pivotally secured between the lugs aforesaid, the front end of said latch adapted to pass through the aperture in said sleeve, a rod secured between the outwardly extending ears of the aforementioned door plate and slidably disposed in the race or sleeve, an aperture formed in said rod adapted to register with the aperture in said race when the door is in open position, a stop plate secured to the rear end of said rod adapted to stop the travel of said rod through said sleeve and to allow the catch to seat in the aperture in the rod.

1,416,277. DEEP-WELL PUMP. GEORGE L. FULLER, Sisquoc, Calif. Filed Apr. 2, 1921. Serial No. 458,141. 8 Claims. (Cl. 103—80.)

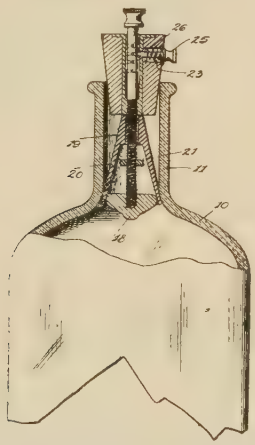
1. In improvements of the character disclosed, a standing valve and a plunger, and means for connecting the plunger with the standing valve to withdraw the latter upon withdrawal of the plunger; the standing valve plunger being disconnected during pumping operation of the plunger; said means comprising members adapted to be interengaged upon the lowering of the plunger, the member of the standing valve being provided with an

angular slot and the member of the plunger being adapted to be entered into said slot upon the lowering of the



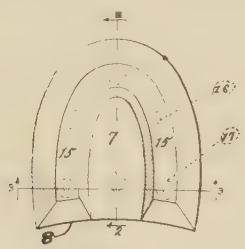
plunger and a partial rotation thereof; said member of the standing valve including a wall having inclined portions converging to said slot.

1,416,278. SAFETY BOTTLE STOPPER. JACK FURMAN, Fort Bliss, Tex. Filed Nov. 10, 1921. Serial No. 514,308. 5 Claims. (Cl. 215—54.)



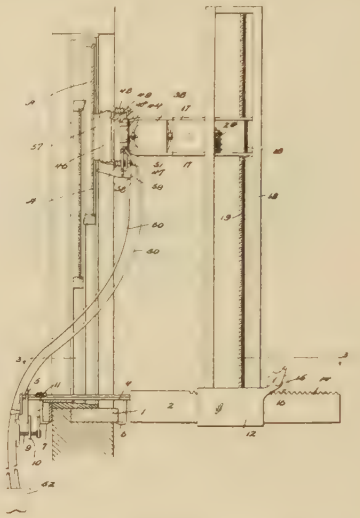
1. A stopper comprising a central post, a pair of cone-shaped members mounted on said post with their bases away from each other and axially movable thereon, one of said members having thin side walls of flexible material, a head on said post engaging internally with said walls, and an element for locking the parts in axial direction.

1,416,279. RESILIENT HEEL. ELMER FUZESSERY, Akron, Ohio. Filed Apr. 22, 1920. Serial No. 375,690. 5 Claims. (Cl. 36—35.)



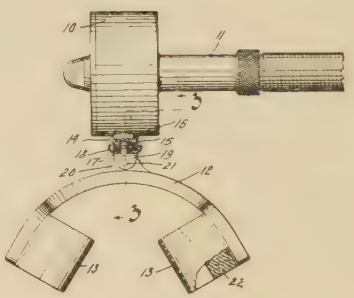
1. An elastic heel lift provided on its wearing face with a rib of rectangular cross section which projects therefrom in parallel spaced relation to the edge thereof and provided on its attaching face with a groove having diverging side walls and a bottom wall which is of substantially the same area as the wearing face of said rib, the outer wall of said groove terminating coincident with the edge of the lift.

1,416,280. WINDOW-CLEANING APPARATUS. JOSEPH GAZDZICKI, Cleveland, Ohio, assignor of one-half to Michael Zajac, Milno, Poland. Filed Aug. 16, 1921. Serial No. 492,713. 12 Claims. (Cl. 15—103.)



1. Window cleaning apparatus comprising a horizontal frame adapted to be mounted upon a window sill, a perpendicular frame supported on the horizontal frame, rack and pinion connections between the two frames, a cross head vertically adjustable on the perpendicular frame, and scrubbing brushes laterally adjustable of the cross head.

1,416,281. VIBRATOR. BENEDETTO GILIBERTI, New York, N. Y. Filed May 12, 1921. Serial No. 468,938. 1 Claim. (Cl. 128—35.)

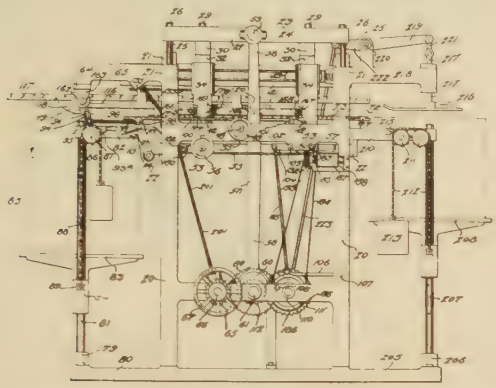


A vibrator including a head having a boss provided with a bore, a spindle rotatably mounted in said bore having a lug, a holder for said head having an ear, and a pin extending through said lug and ear in a direction at right angles to the longitudinal axis of said spindle.

1,416,282. CORNER-CUTTING MACHINE FOR BOX BLANKS. SOLOMON S. GIPE, Hershey, Pa. Filed Apr. 5, 1921. Serial No. 458,819. 30 Claims. (Cl. 93—36.)

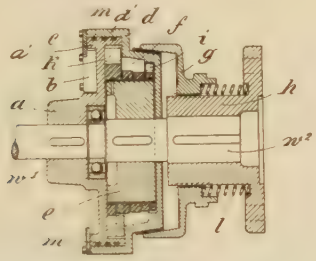
1. A machine of the character described including a cutter casing having an opening providing a mouth extending laterally therein; a cutter slidably mounted in said casing and having a cutting portion movable across said mouth; guiding means positioned with its top sur-

face approximately flush with the bottom portion of said mouth; and means for feeding sheet material along said



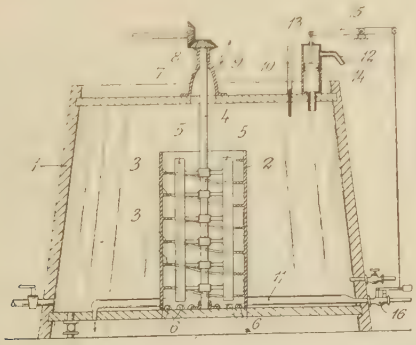
guiding means and into said mouth whereby the cutter is operative to cut pieces out of said sheet material.

1,416,283. HELICAL-SPRING FRICTION CLUTCH WITH AUXILIARY CLUTCH. ANTON GMEINDER, Mosbach, Baden, Germany, assignor to Dortmunder Vulkan Aktiengesellschaft, Dortmund, Germany, a Company of Germany. Filed Mar. 25, 1922. Serial No. 546,765. 8 Claims. (Cl. 192—35.)



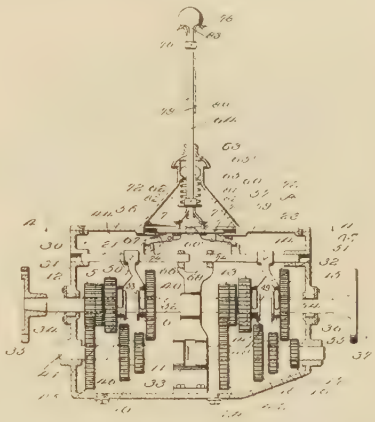
1. In a helical spring friction clutch with auxiliary clutch the combination of two shafts, a disk secured on the one shaft and having a cylindrical flange, a drum secured on the other shaft, a helical spring, a slidable cone, a member for contracting the said helical spring and having a cylindrical flange rotatably fitting the disk flange, and oil retaining means between the said cylindrical flanges.

1,416,284. PROCESS OF PRODUCING SULPHOAROMATIC SUBSTANCES FOR USE IN THE DECOMPOSITION OF FATS. ARNE GODAL, Vestre Aker, near Christiania, Norway. Filed Apr. 15, 1919. Serial No. 290,349. 1 Claim. (Cl. 23—24.)



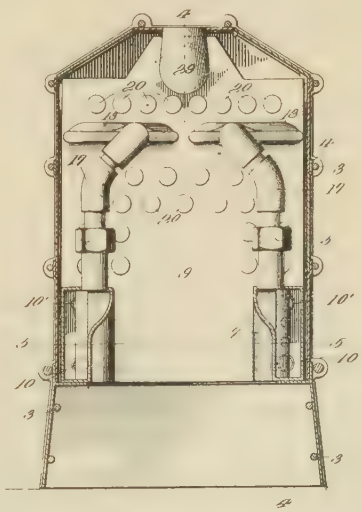
Process of producing sulphoaromatic substances for use in the decomposition of fats which consists in subjecting a mixture of fatty acid and aromatic substance to sulphonation at a temperature below the melting point of the said mixture, the sulphonation taking place in the presence of a quantity of a solvent for the said mixture sufficient to produce a solution which is fluid at the said low sulphonation temperature.

1,416,285. DUAL TRANSMISSION. MARION A. GRIFFIN, Penelope, Tex., assignor of one-half to James D. Fonville, Jr., Seymour, Tex. Filed Oct. 13, 1919. Serial No. 330,188. 1 Claim. (Cl. 74—58.)



A change speed gearing including a set of three axially aligned shafts, a second set of two axially aligned shafts parallel with the shafts of the first set, a gear rigid with one of the end shafts of the first set, a gear rigid with one of the shafts of the second set and meshing with the said first gear, a gear rigid with the intermediate shaft of the first set, a gear rigid with the other shaft of the second set, and meshing with said gear of the intermediate shaft, means for positively connecting the shafts of the first set to effect direct drive therethrough, means for effecting different gear connections between the intermediate shaft and one of the shafts of the second set and means for effecting different gear connections between the other shaft of the second set and the remaining end shaft of the first set.

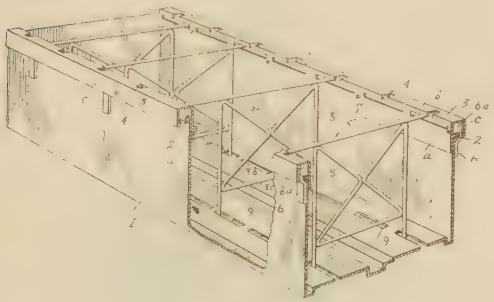
1,416,286. BOILER. WILLIAM F. GROSCUP, Baltimore, Md. Filed Nov. 4, 1920. Serial No. 421,797. 6 Claims. (Cl. 122—316.)



1. In a heater, the combination of a water fire-box, a water-back, a series of tubes receiving water from the

water-back and discharging into the water-back, a pipe leading from the side of the water-fire-box opposite to the water-back, and a supplemental flattened heating tube at the top receiving water from the pipe and discharging into the water-back.

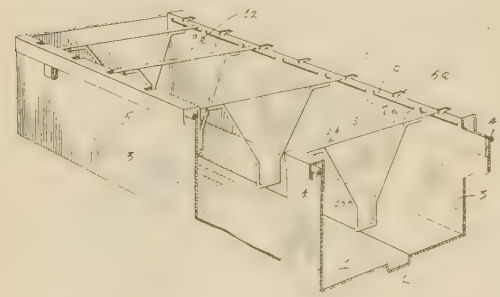
1,416,287. FILING DEVICE. GEORGE D. HARRAH, Buffalo, N. Y., assignor to Multoplex Filing Device Company, Buffalo, N. Y., a Corporation of New York. Filed May 10, 1919. Serial No. 296,231. 6 Claims. (Cl. 129—16.)



5. A filing device of the character described having, in combination, control-strips provided with longitudinal slots and with other slots extending at an angle to and connecting with the longitudinal slots, and spacers having projections for insertion through the angular slots and loose engagement in the longitudinal slots.

6. A filing device of the character described having, in combination, control-strips for the support of spacers, clamping clips co-operating with portions of said control-strips, and screws connecting said clips and said strips.

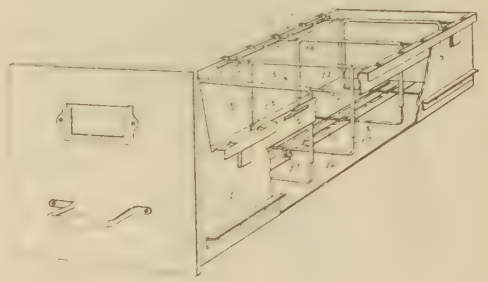
1,416,288. FILING DEVICE. GEORGE D. HARRAH, Buffalo, N. Y., assignor to Multoplex Filing Device Company, Buffalo, N. Y., a Corporation of New York. Filed June 6, 1919. Serial No. 302,281. 6 Claims. (Cl. 129—16.)



4. In a filing device of the type described, the combination of control-strips each having an upper wall and longitudinal slots, and spacers having projections for supporting engagement in said slots, one of said projections being extended angularly to provide a stop for co-operating with said upper wall to limit the swinging movement of the spacer.

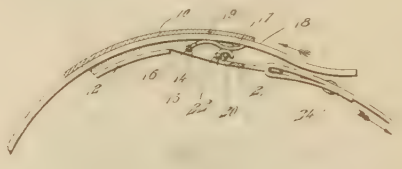
5. In a filing device of the type described, the combination of control-strips and spring clips secured to and projecting below said strips, said clips being fashioned to take over the edge portion of a drawer and to hold said strips above said edge portion.

1,416,289. FILING DEVICE. GEORGE D. HARRAH, Buffalo, N. Y., assignor to Multoplex Filing Device Company, Buffalo, N. Y., a Corporation of New York. Filed Dec. 10, 1919. Serial No. 343,735. 9 Claims. (Cl. 129—16.)



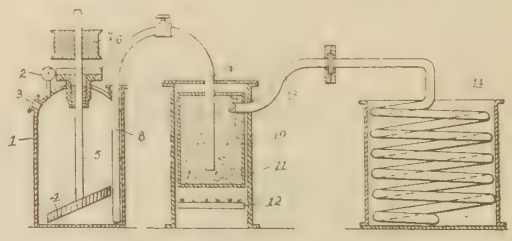
9. In a filing device of the type described, a skeleton spacer having vertically adjustable elements and having laterally directed and extensible supporting projections.

1,416,290. BUCKLE. DAVID A. HART, Providence, R. I., assignor to Reliance Manufacturing Co., Providence, R. I., a Copartnership comprising David A. Hart and Dexter E. Partelow. Filed Jan. 12, 1921. Serial No. 436,639. 4 Claims. (Cl. 24—191.)



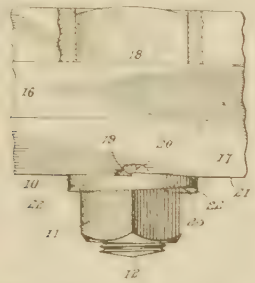
1. A belt buckle comprising a body portion, a resilient clamping tongue mounted on the body and extending in an irregular curved line, one end of said tongue forming a gripping edge, and an operable cam engageable with said tongue to force the tongue and gripping edge into engagement with said belt, the irregular portions of said tongue causing the gripping edge to be released from said belt when said cam is operated to release its pressure on the tongue.

1,416,291. APPARATUS FOR FORMING A LIQUID FUEL. ALBERT HAYES, New York, N. Y., assignor, by mesne assignments, to U. S. Industrial Alcohol Co., a Corporation of West Virginia. Filed June 5, 1919. Serial No. 302,065. 4 Claims. (Cl. 44—2.)



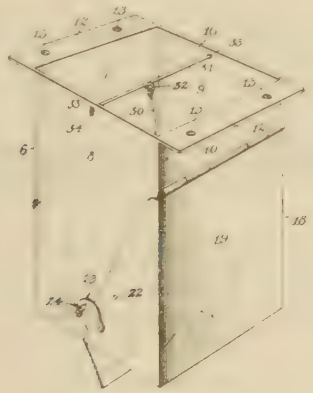
1. An apparatus for forming a liquid fuel comprising the combination of a tank having an inlet and an agitator within the tank, a catalytic chamber containing catalytic material, means for heating the latter, a conduit extending from the bottom of the tank to the catalytic chamber, a condenser and a conduit connecting it to the catalytic chamber.

1,416,292. NUT LOCK. RAYMOND M. HATCH, Trumansburg, N. Y. Filed Aug. 23, 1920. Serial No. 405,269. 1 Claim. (Cl. 151—45.)



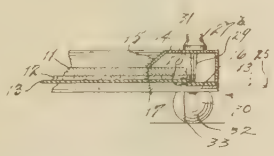
The combination with a nut having a pair of diametrically disposed teeth on its under side facing in the direction of rotation in screwing the nut on a bolt, of a locking washer therefor having a pair of teeth on each side diametrically disposed, the teeth on each side facing in the opposite direction of rotation of the nut in screwing the same upon a bolt, the pitch of the teeth on opposite sides of the washer being of the same degree.

1,416,293. CLOTH-FINDINGS DISPENSER. ISRAEL E. HELLER, Buffalo, N. Y. Filed Jan. 12, 1921. Serial No. 436,728. 6 Claims. (Cl. 211—29.)



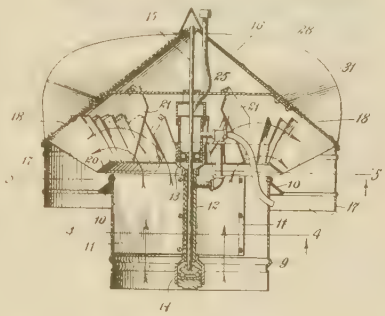
2. A device of the kind described, comprising a body portion having three full length side walls, a short side wall, a bottom terminating in a plane between said short side wall and the side wall directly opposite and an opening extending from the edge of said bottom to the lower edge of said short side wall, a closure hinged to the lower edge of said short side wall and having a front wall in line with said short side wall, a bottom wall in line with the bottom of said body portion and downwardly widened side walls, the whole being arranged to form a box-like structure in which the bottom of said body portion and the bottom of said closure serve to support a stack of cloth findings placed therein, and means to press downwardly against said stack of cloth findings.

1,416,294. SERVING TRAY. MAX HIMMELFARB, Brooklyn, N. Y. Filed June 7, 1921. Serial No. 475,686. 3 Claims. (Cl. 65—53.)



1. A frame member consisting of a plurality of channeled side and end members, a slab, the bottom flange of one end member being unsecured to the adjacent bottom flanges of the side members when said side and end members are assembled, and a bottom plate beneath the slab insertable between the unsecured bottom flange of the end member and bottom flanges of the side members, said unsecured bottom flange being secured to the adjacent flanges of the side members after the bottom plate has been inserted whereby said bottom plate will be permanently secured in position.

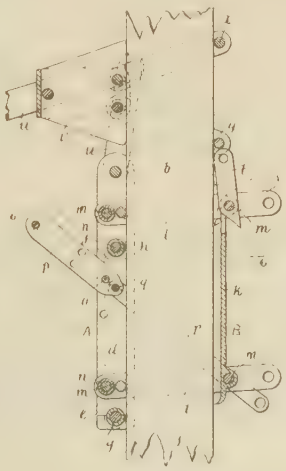
1,416,295. ROTARY VENTILATOR. WILLIAM F. HIRSCHMAN, Buffalo, N. Y. Filed Sept. 13, 1920. Serial No. 410,045. 14 Claims. (Cl. 98—2.)



3. A rotary ventilator comprising a conical rotatable dome, and a propeller blade whose leading edge is flush with the outer surface of said conical dome and extends forwardly at a point intermediate of the axis and the periphery of said dome, the main portion of said propeller blade extending rearwardly and outwardly away from said leading edge and terminating in a trailing edge which overhangs rearwardly a line extending from the outer to the inner end of the blade at a point intermediate of the axis and the periphery of the dome, substantially as described.

8. A rotary ventilator comprising a vent pipe, a rotatable dome arranged above the upper end of said vent pipe, a circumferential row of suction blades secured to the lower face of said dome and disposed outwardly of said vent pipe, and centrifugal blades extending inwardly over the rim of said vent pipe, said centrifugal blades being comparatively few in number while said suction blades are very numerous.

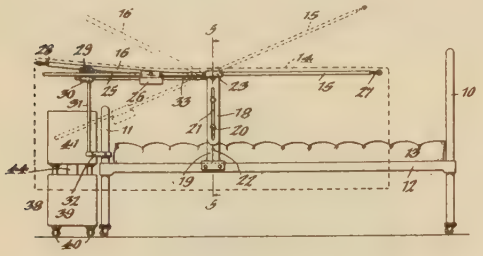
1,416,296. SCAFFOLD MACHINE. PETER HOITSMA, Paterson, N. J. Filed Feb. 14, 1921. Serial No. 444,650. 11 Claims. (Cl. 304—18.)



7. A scaffold machine adapted to be shifted vertically on a suitable upright and including a load-carrying member adapted to bear against one face of the upright, a gripping member adapted to grip the opposite face of the upright, linking means extending from one member across the upright to the other member and pivotally connecting

said members, and a lifting means operatively connected with the load-carrying member and having vertically shiftable means to grip the upright.

1,416,297. BEDSTEAD. LUCIEN HOWE, Buffalo, N. Y. Filed Mar. 8, 1921. Serial No. 450,571. 5 Claims. (Cl. 5—41.)



1. An attachment for supporting the covers of a bed, comprising standards carried by the side rails of the bed, a cross bar supported at its ends in said standards, and a vertically swinging frame fulcrumed on said cross bar

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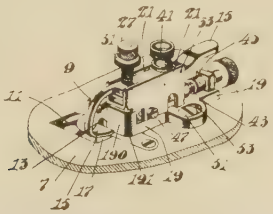
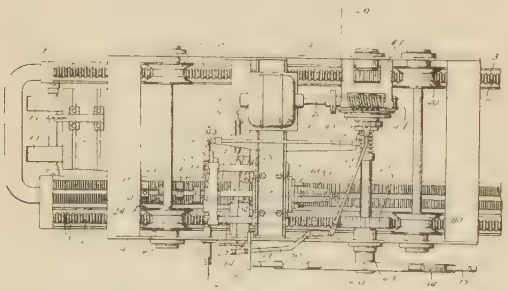
1,416,298. FOLDING MACHINE. CHARLES H. JONES, Moorestown, N. J., assignor, by mesne assignments, to P. R. Glass Company, Boston, Mass., a Corporation of Massachusetts. Filed Nov. 16, 1918. Serial No. 262,857. 14 Claims. (Cl. 12—55.)



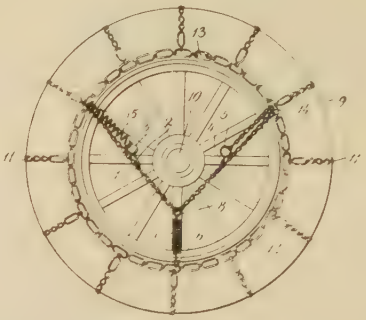
1. A machine for operating upon a piece of work which comprises pieces of material of different degrees of flexibility the margin of the more flexible material projecting beyond the edge of the less flexible material, having in combination, a support over which the work is fed, means for folding the margin of the more flexible material over upon the body portion thereof, means for determining the line of the fold, said means being adjustable to vary the distance of the fold line from the edge of the less flexible material, and means for pressing the fold.

1,416,299. SPACING MACHINE. GEORGE P. KLINE, Moline, Ill., assignor to Williams, White & Company, Moline, Ill., a Corporation of Illinois. Filed Mar. 23, 1921. Serial No. 454,895. 38 Claims. (Cl. 164—117.)



1. In a spacing machine, inverted V-shaped rails, rack teeth formed thereon, spool shaped wheels which travel on said rails, a stock holding carriage mounted on said wheels, and pinions mounted on said carriage and engaging said rack teeth.

1,416,300. CHAIN TIRE GRIP AND TIGHTENER THEREFOR. HOWARD W. LODER, Towaco, N. J., assignor to American Chain Company, Incorporated, Bridgeport, Conn., a Corporation of New York. Filed Nov. 27, 1917. Serial No. 204,177. 7 Claims. (Cl. 152—14.)

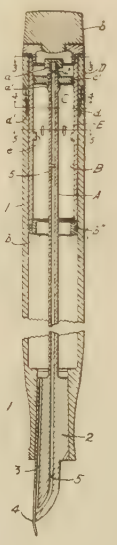


6. The tightener adapted for use in chain tire grips and comprising an adjustable length flexible tightener, a hook securing member adjustably connected to the intermediate portion of said tightener, a spiral spring interposed between said hook securing member and tightener and a securing member secured to each end of said tightener.

1,416,301. HAIR CURLER. MILTON D. MESEROLE, Milford, Conn., assignor to Hayes & Meserole Mfg. Co., Milford, Conn., a Firm. Filed Oct. 22, 1921. Serial No. 509,666. 2 Claims. (Cl. 132—41.)

1. A hair curler, comprising a frame formed from a single piece of wire bent to provide a rear bar and two sides, the ends of the wire turned inward, a tongue hinged to the said rear bar, and a slide mounted on the side bars of the frame and adapted to extend over the tip of the tongue.

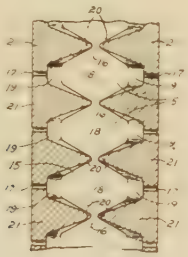
1,416,302. FOUNTAIN PEN. OLIVER MITCHELL, Brookline, Mass. Filed Sept. 23, 1921. Serial No. 502,616. 3 Claims. (Cl. 120—47.)



3. In a fountain pen, the combination of a fountain, a cup slidably mounted in the rear end of the fountain

and having suitable grooves upon its inner surface; a pipe longitudinally mounted within the fountain, open at its front end to the air and at its rear end closed by a cap-stop and vented to the interior of the cup by a side aperture; a disk mounted for limited longitudinal movement upon the pipe at its rear end, within the cup and in frictional, air-tight engagement at its edges with the inner walls of the cup, the disk moving to close the pipe vent upon rearward movement of the cup and moving to open the pipe vent upon forward movement of the cup.

1,416,303. VEHICLE TIRE. WALDEMAR C. PECK, Naugatuck, Conn. Filed Jan. 24, 1921. Serial No. 439,401. 10 Claims. (Cl. 152—1.)



10. A semi-solid vehicle tire having a plurality of cushion chambers extending transversely of the tire, said chambers being oblong in shape with their sides converging toward their extremes to provide inwardly tapered dividing walls between the chambers, the extremes of said chambers being provided with vents extending through the sides of the tire, and the inner extremities of opposed dividing walls being spaced from each other to provide relatively narrow passages connecting adjacent chambers

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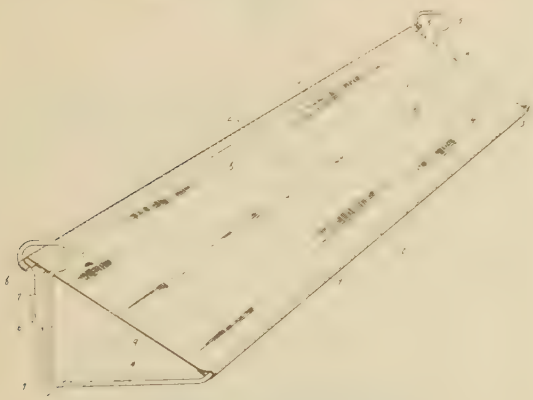
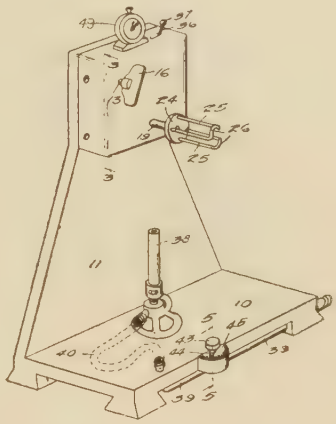
1,416,304. CANOPY FOR WINDSHIELDS. CHARLES M. ROBINSON, New Haven, Conn. Filed June 20, 1921. Serial No. 478,823. 1 Claim. (Cl. 296—95.)



A canopy for wind-shields, comprising a frame formed from a single piece of wire bent to form a front bar, bottom bars and upwardly to form loops with downwardly turned ends, said loops connected by a strap, and a strip of flexible material connected with the said strap and front bar.

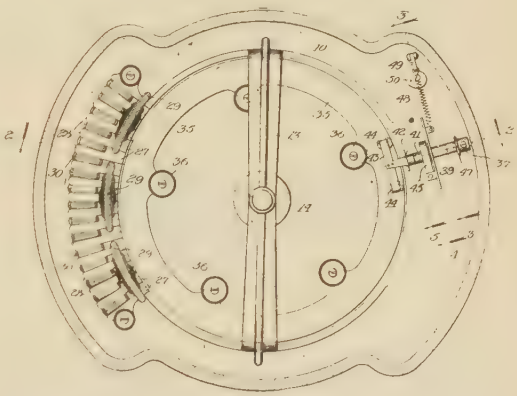
1,416,305. MECHANISM FOR PREPARING MOLDS FOR DENTAL CASTINGS. ELLING I. ROSHEIM, Roland, Iowa. Filed Apr. 11, 1921. Serial No. 460,402. 5 Claims. (Cl. 263—9.)

5. In a device of the class described, a base, a supporting element thereon, a dental mold form holder, mounted thereon for rotation on a horizontal axis, a burner, and means on said holder for holding a form with one end



plainly visible and for freely exposing the form held thereby to the heat of the burner during the rotation of said holder.

1,416,306. DRIVING MEANS FOR PHONOGRAPHS. HENRY K. SANDELL, Chicago, Ill., assignor to Herbert S. Mills, Chicago, Ill. Original application filed Apr. 5, 1918, Serial No. 226,804. Divided and this application filed Apr. 17, 1919. Serial No. 290,705. 5 Claims. (Cl. 172—278.)

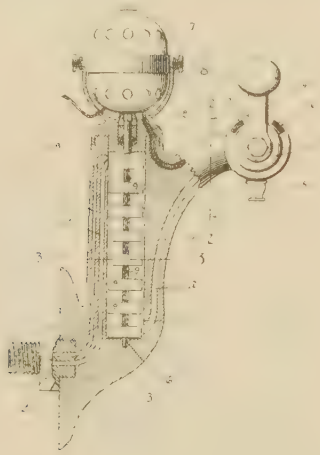


5. A stator for a monophase induction motor comprising a field magnet having an annular core and internally extending radial projections, alternately-reversed series-connected exciting windings about successive groups of said projections, and alternately reversed series-connected reactance windings about said core and in parallel with said exciting windings.

1,416,307. CARBONATING DEVICE. CARL J. SEVERSON, Minneapolis, Minn. Filed May 20, 1920. Serial No. 382,729. 8 Claims. (Cl. 225—26.)

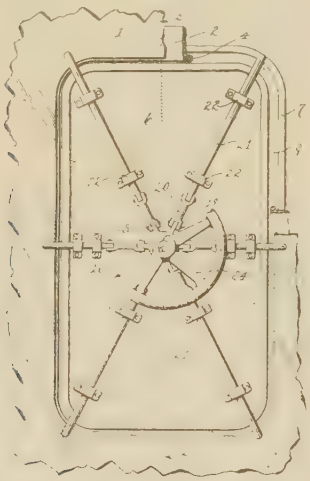
1. In combination, with a fountain, a hollow draft arm mounted thereon having a carbonating chamber therein, and inlet and discharge ducts for said chamber, an agi-

tating device mounted in said chamber, on an axis extending into the chamber, a motor attached to said axis



on the exterior of the arm for operating said agitating device, and a fluid regulating means for said discharge duct.

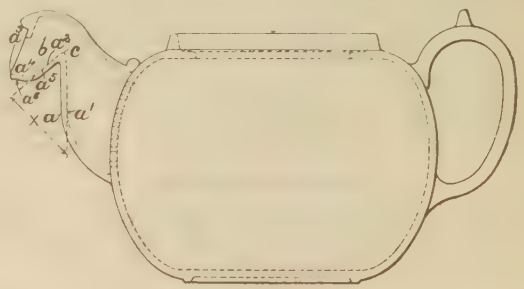
1,416,308. LOCKING DEVICE FOR WATER-TIGHT DOORS. JOSEPH L. SILVERMAN, Brooklyn, and JOHN W. SHIELDS, West Brighton, N. Y. Filed Oct. 18, 1920. Serial No. 417,610. 1 Claim. (Cl. 114—117.)



In a locking device of the character set forth, the combination with a wall having a flanged opening, of a plate provided with a compressible packing ring arranged to engage the flange of said opening, the said plate having an opening, a shaft passing through the said opening in the plate and having a collar located in said opening, bearing blocks attached to the plate on either side of the said opening to retain said collar in the opening, said shaft passing movably through the said bearing blocks, means on either side of the plate for revolving the shaft, one end portion of said shaft being threaded, a member engaging the threaded portion of the said shaft, bolts having wedge-shaped ends engaging the edge of the opening in the wall, and links pivotally connecting the said member and bolts.

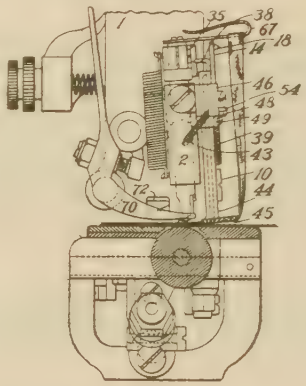
1,416,309. POURING SPOUT. FRANK TUNNICLIFF, Burslem, Stoke-on-Trent, England. Filed Nov. 15, 1921. Serial No. 515,278. 3 Claims. (Cl. 53—3.)

1. In spouts for teapots, coffee pots and other pouring vessels, the combination with a sharp cut off formed by the apex or junction of the inner face of the breast of the spout and the inclined back face of the lip, of a shallow



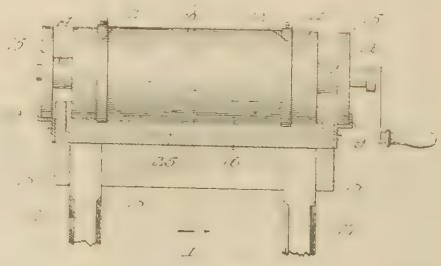
recess inside the lip of the spout and a slight depression or dimple on the underside thereof substantially as and for the purpose described.

1,416,310. FOLDING AND STRIP-ATTACHING MECHANISM. ALFRED B. WALES, Whitman, Mass., assignor to Lorenz Muther, Newton, Mass. Filed Dec. 20, 1913, Serial No. 807,841. Renewed Sept. 13, 1921. Serial No. 500,320½. 11 Claims. (Cl. 12—55.)



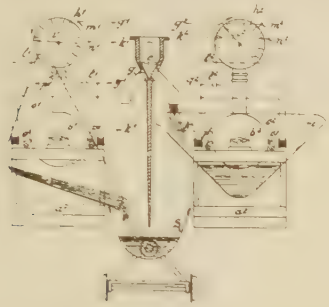
1. The combination in a folding machine, of means for feeding and folding the edge of a flexible material, with means for attaching a strip of flexible material of any desired length to said first-mentioned material, contiguous to, but independent of the folded edge.

1,416,311. ART OF LITHOGRAPHING. GUSTAV B. WEDOW, Chicago, Ill. Filed Feb. 7, 1921. Serial No. 443,038. 1 Claim. (Cl. 41—415.)



In the art of lithographing, the process of producing a mottled or marbled effect on a lithographic plate which includes the floating of a small quantity of printing material on the surface of a liquid and the bringing of the surface of the plate into contact with such printing material.

1,416,312. AUTOMATIC WEIGHING MACHINE. HENRI VINCENT ADAM, Djocja, Java. Filed Mar. 3, 1921. Serial No. 449,535. 8 Claims. (Cl. 249—28.)

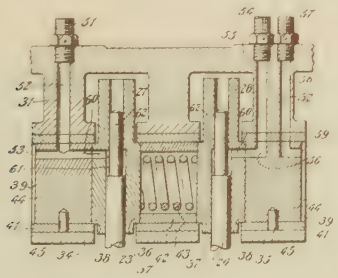


1. An automatic weighing apparatus including two tiltably mounted weighing troughs adapted to be alternately filled and discharged, weighing means operatively associated with each trough, two locking members for each trough, one locking member functioning to hold a trough in upright position and the other locking member functioning to hold the trough in tilted position, electromagnetic means for actuating said locking members, electric circuits in which the electro-magnetic means are arranged, and contacts for the electric circuits actuated by the weighing means for causing the unlocking of one of said locking members when a predetermined quantity of material has been placed in a trough and for unlocking the other locking member after a predetermined quantity of the material has been discharged from a trough.

1,416,313. CONDENSER-APRON LUBRICATOR. THOMAS ASTBURY, New Bedford, Mass., assignor to John Dexter, New Bedford, Mass. Filed June 3, 1921. Serial No. 474,828. 12 Claims. (Cl. 184—102.)

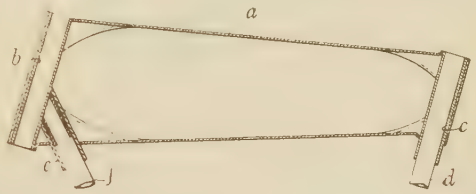
10. A lubricant device for supplying oil to a traveling web, comprising, in combination, a roller mounted to rest upon said web for rotation thereby, a lubricant trough supported adjacent said roller and having a wick extending from the trough into contact with the periphery of the roller to deliver oil thereto, and means for pinching the wick to thereby regulate the amount of oil delivered to the roller by the wick.

1,416,314. PRESSURE PUMP. CHARLES H. ATKINS, Palmer, Mass. Filed May 13, 1920. Serial No. 381,105. 10 Claims. (Cl. 103.7.)



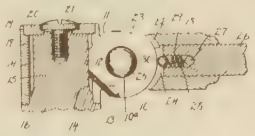
1. In a pressure pump of the class described, in combination, an oscillating cylinder having a compression chamber and a plunger chamber of different diameters and a port located midway of its length and in the compression chamber only, of a plunger of different diameters operating in said chambers, a stationary port member having a supply orifice and a discharge orifice, the port in said cylinder in one of its positions having communication with said compression chamber and with said supply orifice and in another one of its positions said chamber is in communication with said discharge orifice, and means for operating said cylinder and plunger.

1,416,315. MOTOR CYCLE. FRANK EDWARD BAKER and THEODORE JAMES BIGGS, Birmingham, England. Filed Feb. 10, 1920. Serial No. 357,609. 2 Claims. (Cl. 208—93.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



1. In motor cycle frames, the combination with head, down and seat tubes, of a pair of sheet metal parts shaped to form a tank and the upper member of the cycle frame and adapted to embrace the head tube and seat and down tubes of the said frame, the said parts being united along their abutting edges, substantially as described.

1,416,316. RATCHET MECHANISM. EDWIN W. BULLARD, Whitneyville, Conn., assignor to The Peck, Stow & Wilcox Company, Southington, Conn., a Corporation. Filed Jan. 25, 1922. Serial No. 531,537. 1 Claim. (Cl. 74—54.)

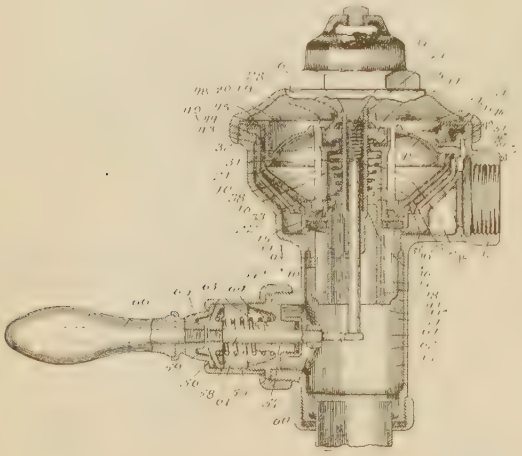


In a ratchet mechanism, the combination with a chambered socket provided with an arm having an axial bore extending throughout its length, and a radial slot intersecting the said bore at a right angle thereto; of a ratchet located within the chamber of the said socket, a rotatable three-point pawl positioned in the said slot for co-action with the said ratchet and having a centrally-located, circular bearing-opening substantially corresponding in diameter to the diameter of the said axial bore, and a ball fitting the said bearing-opening and the said bore, and having rotary and reciprocatable movement in the latter, whereby the pawl is free to adjust itself upon the said ball, with which it reciprocates in the said bore.

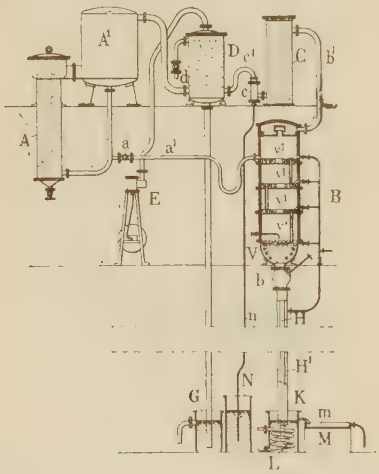
1,416,317. FLUSH VALVE. ROBERT R. BANTA, Chicago, Ill. Filed July 29, 1918. Serial No. 247,325. 21 Claims. (Cl. 137—93.)

1. In combination, a valve, a valve stem connected therewith and provided with a telescopic extension, a

tripping member cooperating with said extension, a handle for moving said tripping member to trip said extension, and automatic means for causing the tripping member to cooperate with the extension to open the valve.



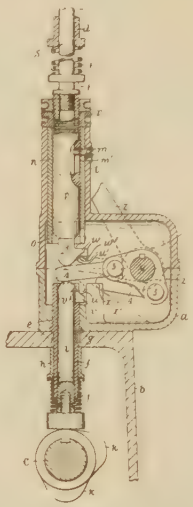
1,416,318. PROCESS FOR THE CONTINUOUS DISTILLATION OF GLYCERIN FROM THE WEAK GLYCERINOUS LIQUORS OBTAINED IN FERMENTATION PROCESSES. EMILE AUGUSTIN BARBET, Paris, France. Filed June 25, 1919. Serial No. 306,620. 2 Claims. (Cl. 87—4.)



2. Process for extracting glycerin from dilute glycerinous liquors, which consists in subjecting the previously concentrated weak glycerinous liquors to a further concentration in an evaporator having a rapid circulation and energetic heating, bringing the resulting syrup into a column apparatus provided with bubbling plates wherein the liquid is maintained at a high temperature and under reduced pressure, subjecting the descending syrup to the action of ascending current of superheated steam, condensing the resulting vapours, separating the glycerinous liquid from the gases and water vapour, and effecting the discharge of the exhausted material in a liquid state.

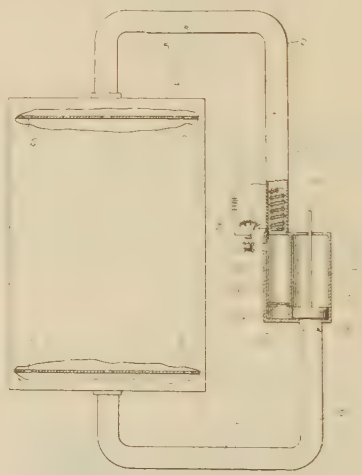
1,416,319. REVERSING MECHANISM FOR INTERNAL-COMBUSTION ENGINES. ROBERT BARBOUR, Paterson, N. J. Filed Aug. 11, 1920. Serial No. 402,929. 1 Claim. (Cl. 123—41.)

The combination, with a pair of upward thrust-imparting members moving in alternation upward to substantially the same plane, a rocker arranged on a horizontal axis approximating said plane and equidistant from said members, and impulse-transmitters pivoted to said rocker one above and the other below said axis and having free ends projecting toward the respective members and each one rocking the rocker back and forth being movable over and into position to rest on the corresponding member



and then clear the latter, of a supporting structure for said members and rocker having means to guide approximately in said plane the free end of the upper transmitter when clear of the member corresponding thereto and a rest for guiding the free end of the lower transmitter when clear of the member corresponding thereto, said rest being upwardly inclined to approximately said plane.

1,416,320. HEAT EXCHANGER. HJALMAR V. BARCLAY, New York, N. Y. Filed Feb. 14, 1919. Serial No. 276,959. 3 Claims. (Cl. 219—39.)

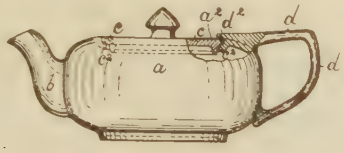


1. In a hot appliance, in combination, a hollow pad, having an inlet and an outlet, a pump, an electric heater, means for conveying air continuously from said pump and heater to said inlet, through said hollow pad, and to said outlet, and means for admitting regulated quantities of cool air to said inlet.

1,416,321. TEAPOT AND COFFEEPOT. WILLIAM GEORGE BARRATT, Stoke-on-Trent, England. Filed Nov. 28, 1921. Serial No. 518,210. 1 Claim. (Cl. 53—3.)

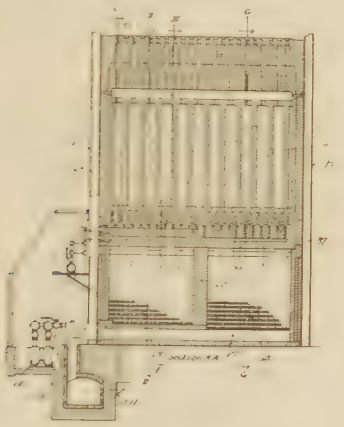
A pot provided with a pouring spout, and a handle, said pot having an opening at its top and a flange extending

around its opening below the level of its top, said pot having also a lug arranged adjacent to its handle and projecting crosswise over the said flange towards the



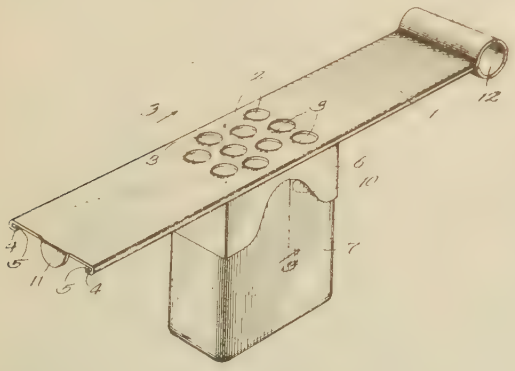
spout, and a lid which rests on the said flange and engages with the said lug and is thereby prevented from falling off when the pot is tilted to pour out its contents.

1,416,322. COKING RETORT OVEN. JOSEPH BECKER, Pittsburgh, Pa., assignor to The Koppers Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 23, 1920. Serial No. 376,126. 25 Claims. (Cl. 202—9.)



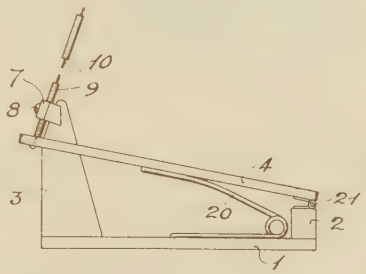
25. A coking retort oven having coking chambers, heating walls contiguous to such coking chambers, and regenerators disposed in in-flow and out-flow groups and communicably connected with said heating walls, combined with a return waste gas main receiving waste gas from the out-flow regenerators, and flow-controlling devices directly connecting said return waste gas main with the in-flow regenerators whereby return waste gas may be optionally directed into some of the in-flow regenerators; substantially as specified.

1,416,323. SUBDIVIDING TOOL. JOHN F. BERGANDER, Chicago, Ill. Filed Sept. 15, 1921. Serial No. 500,874. 3 Claims. (Cl. 146—7.)



2. A device of the class described including a knife that is generally rectangular and that is formed with cutting edges between its longitudinal sides; and a jacket with which the knife is in sliding engagement, opposite sides of said jacket being formed with thumb and finger recesses through which the remnant of the material surrounded thereby may be grasped.

1,416,324. PEDAL APPARATUS FOR SEWING MACHINES AND THE LIKE. HANS BERGGRAF, Stavanger, Norway, assignor to Martin Berg, Sandefjord, Norway. Filed Aug. 24, 1921. Serial No. 494,989. 3 Claims. (Cl. 74—81.)



1. A pedal apparatus for sewing machines and the like comprising a spring controlled pedal, a stationary standard in proximity to the outer end of the pedal, a machine engaging element, an elongated flexible casing having one end secured to the machine engaging element and the other end associated with the standard, a flexible element operating through the casing and having one end adapted to be connected with the crank mechanism of the machine and the other end connected to the pedal whereby when the pedal is operated rotary movement will be imparted to the machine.

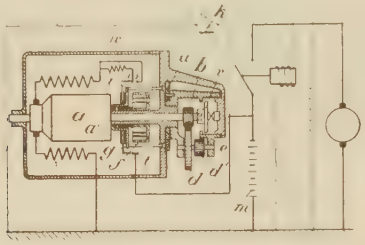
1,416,325. OBTAINING OF GRAIN AND LIKE EFFECT IN PAINTING. WILLIAM BERRY, Cleveleys, near Blackpool, England. Filed Dec. 16, 1919. Serial No. 345,423. 1 Claim. (Cl. 45—5.5.)

Process for producing grain and like effects on wood or other material, characterized in this, that the wood or material, to be grained is first provided with a ground color which is allowed to set, secondly has grooves formed therein by disc or like cutters to correspond with the pattern of the desired grain markings, thirdly has a surface coat of paint applied to the grooved wood, and fourthly has the surface paint removed by wiping, except from the grooves in which it remains as set forth.

1,416,326. ELECTRIC STARTER FOR INTERNAL-COMBUSTION ENGINES. FREDERIC BILLON, Solothurn, Switzerland, assignor to the Firm Scintilla, Solothurn, Switzerland. Filed Jan. 18, 1922. Serial No. 530,156. 4 Claims. (Cl. 290—38.)

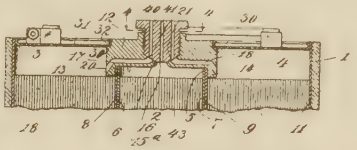
1. In an electric starter for internal combustion engines, the combination with an electric starting motor, a

pinion connected with said motor, a toothed wheel adapted for connection with the internal combustion engine, an intermediate toothed gear actuated by said pinion, an oscillatable support for said intermediate gear, of an electro-magnetically actuated clutch device operable to clutch

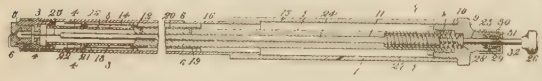


the oscillatable support with the starting motor whereby the first mentioned toothed gear is brought into mesh with the engine wheel, a motor circuit, and a main switch interposed in the motor circuit, controlling said electric motor and actuated by said clutch device.

1,416,327. STORAGE-BATTERY CONSTRUCTION. ROBERT S. BLAIR, Sound Beach, Conn. Filed May 9, 1919. Serial No. 295,876. 8 Claims. (Cl. 204—29.)

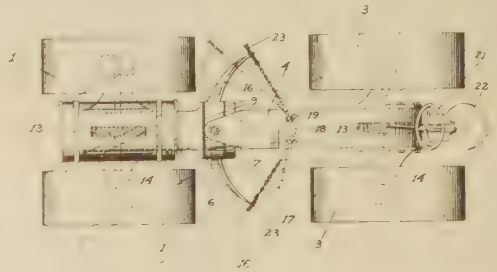


1. In combination, a storage battery comprising a plurality of cells in a liquid-tight casing enclosing the same, and a single filling opening for filling a plurality of said cells communicating directly with each of said cells.

1,416,328. HYDROCARBON GENERATOR. GEORGE N. BLANCHARD, San Francisco, Calif., assignor to Edwin B. Kimball, trustee, San Francisco, Calif. Filed May 16, 1921. Serial No. 470,050. 10 Claims. (Cl. 158—120.)

10. A hydrocarbon generator comprising a tubular casing open at its rear end and provided with a fuel inlet leading thereinto and at its opposite end formed with a vapor outlet, a generator cleaning member removably positioned within said casing and affording a generating chamber between its wall and the wall of said casing, a scraping element carried by the cleaning member in frictional engagement with the inner wall of said casing, said cleaning member and element capable of withdrawal longitudinally from said casing through its open rear end and whereby carbon or other foreign substances adhering to the inner wall of said casing is released therefrom and removed from within the casing through its open end on the outward movement of said cleaning member, a vapor outlet cleaning needle associated with the casing and capable of operation to project into the said vapor outlet to free the same of foreign substances, and a removable means for engaging the casing to normally close the open end of the casing and retain said cleaning member therein.

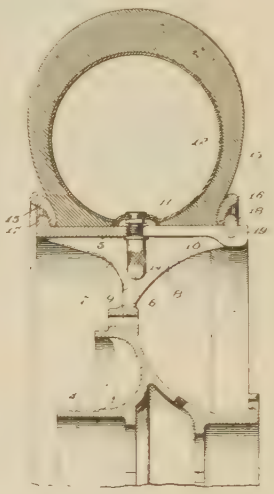
1,416,329. FOUR-WHEEL DRIVE TRACTOR. SAMUEL BLODGETT, Clements, Calif. Filed Mar. 16, 1921. Serial No. 452,862. 5 Claims. (Cl. 180—50.)

1. In a tractor, independent front and rear frames, a universal joint connecting the frames, and additional connecting means between the frames in vertical and axial alinement with said universal joint, whereby the frames



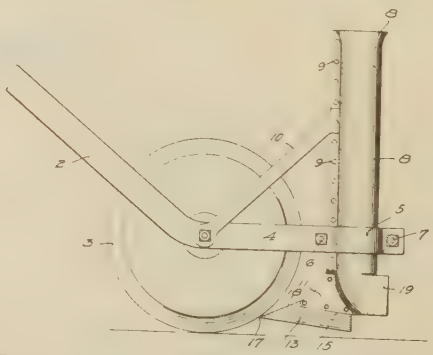
may have relative horizontal and transverse angular movement.

1,416,330. METAL WHEEL. ROBERT J. BURROWS, Buchanan, Mich., assignor to Clark Equipment Company, Buchanan, Mich., a Corporation of Michigan. Filed July 12, 1919. Serial No. 310,428. 4 Claims. (Cl. 301—63.)



1. A wheel comprising a hub, a felly band having a transverse slot to receive the valve stem of a pneumatic tire, means connecting the felly band with the hub, and reinforcing means extending transversely between said connecting means and the felly band adjacent to said slot.

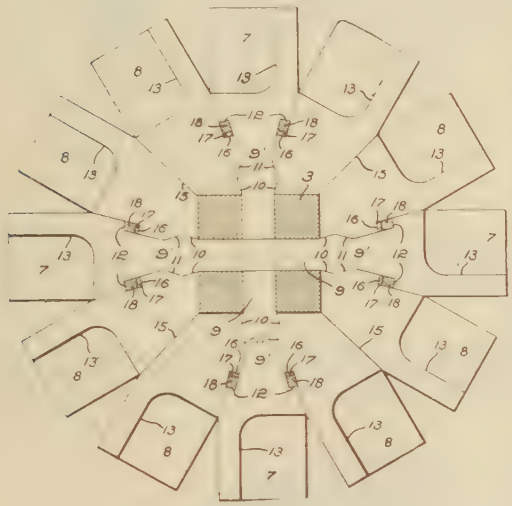
1,416,331. GRAIN SHOE. HARDY WEBSTER CAMPBELL, Lincoln, Nebr. Filed Feb. 28, 1918. Serial No. 219,658. 4 Claims. (Cl. 111—86.)



2. In combination, with a grain boot having forwardly and downwardly extending wings, a grain shoe comprising a blade having a shank fitting between said wings and

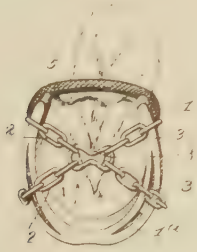
secured thereto and shoulders against which the edges of said wings are seated, with the surfaces of the wings flush substantially with the side surfaces of the shoe and said shoe having a flat lower surface for packing the bottom of the seed crevice, and side walls for packing the walls of the crevice.

1,416,332. STIRRER. WARREN O. CHACE, Everett, Mass. Filed Aug. 18, 1920. Serial No. 404,290. 11 Claims. (Cl. 259—108.)



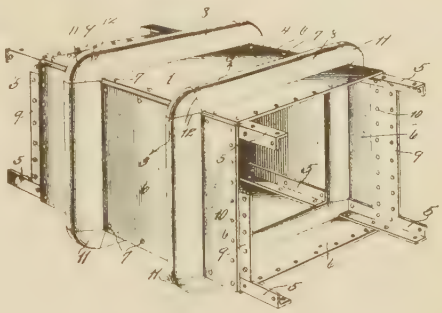
1. In a rotor, a shaft, a plurality of paddles of varying length locked thereto in substantially the same horizontal plane, the long paddles having shanks extended through the shaft, while the short paddles are wedged between the long paddles and against the shaft.

1,416,333. CENTRAL CONNECTING MEMBER FOR HORSE OVERSHOES. EDWARD A. CONNER, Bridgeport, Conn., assignor to American Chain Company, Inc., a Corporation of New York. Filed Dec. 9, 1919. Serial No. 343,671. 4 Claims. (Cl. 168—1.)



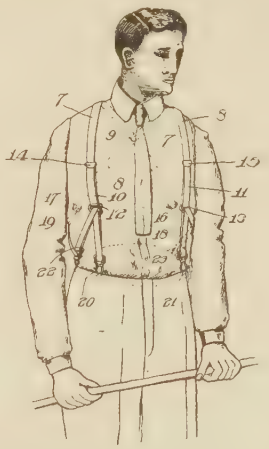
1. In an anti-slipping overshoe for horses, a tread portion including a plurality of tread members adapted to be arranged to converge from the perimeter of the bottom of the hoof toward the frog, and a common link for joining the ends of said tread members, said link consisting of a loop adapted to span said frog, the terminal links of said tread members being slidably linked with said loop, and a portion of said loop being constricted to confine each of said terminal links to a limited movement on said loop.

1,416,334. FLUE AND FLUE SECTION. WILLIAM M. CONNERY, Philadelphia, Pa. Filed Mar. 16, 1921. Serial No. 452,755. 12 Claims. (Cl. 137—75.)



1. As an article of manufacture a flue section comprising sheet metal plates connected to form the four sides of the section, each plate being provided with relatively deep corrugations, located at requisite infrequent intervals, inset sections or pieces between the straight portions of the corrugations, and means for connecting the inset sections or pieces to the corrugations.

1,416,335. SUSPENDERS. OLNEY CROASDALE, Berwyn, Pa., assignor to Pioneer Suspender Company, a Corporation of Pennsylvania. Filed June 26, 1919. Serial No. 306,785. 1 Claim. (Cl. 241—29.)

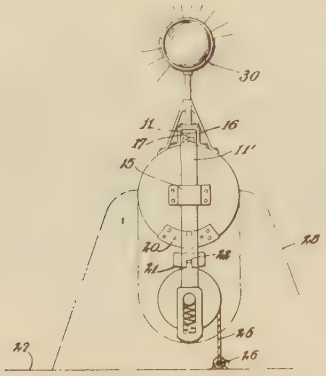


In a pair of suspenders, the combination of two shoulder-straps crossing at the back, two button-loop-supporting strands, each strand having one end fixedly secured to the rear end of a shoulder strap, and a portion slidably connected with the front end of a shoulder strap, a button-loop fixedly connected with the free end of each strand and a button loop slidably connected on each strand between its points of engagement with the shoulder straps.

1,416,336. SUNKEN-SHIP-INDICATING DEVICE. GEORGE CZEPERKO, Unity Station, Pa. Filed Mar. 26, 1920, Serial No. 368,911; Renewed Apr. 6, 1922. Serial No. 550,168. 3 Claims. (Cl. 9—9.)

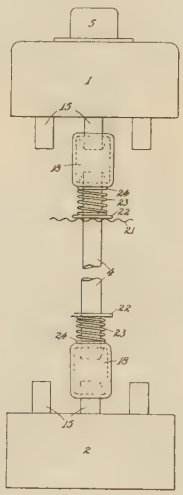
1. In combination with a ship, a float freely supported on said ship, a drum suspended from said float to have both a rotatable movement on its own axis and a bodily up and down movement, a cable wound upon said drum and attached to said drum at one end and to the ship at

its opposite end, resilient means pressing said drum upwardly, and an interlocking device on said drum and float



adapted to hold said drum against rotation when in its raised position.

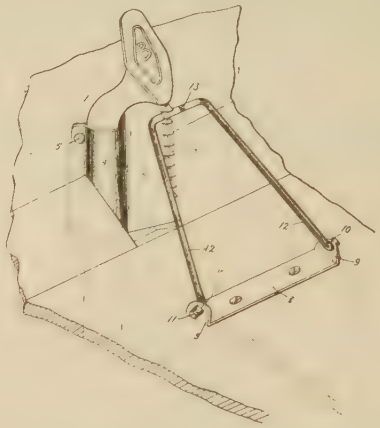
1,416,337. RADIATOR FOR MOTOR VEHICLES AND THE LIKE. BERNARD P. F. DEANE, Kensington, England. Filed Nov. 1, 1920. Serial No. 421,108. 3 Claims. (Cl. 257—129.)



1. A radiator comprising an upper water chamber, a lower water chamber, means for securing said chambers in spaced relationship, nipples on said chambers, water tubes extending between each nipple on one of said water chambers and a corresponding nipple on the other chamber, flexible tubular connectors, internal flexible flanges extending from each end of said connectors to embrace and grip the end of each nipple and the adjacent end of the associated water tube so as to connect them together and a chamber surrounding said flanges substantially as and for the purpose set forth.

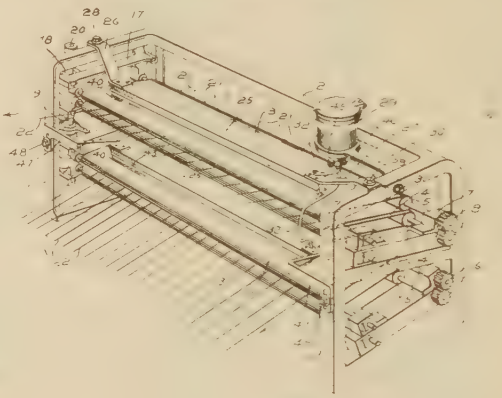
1,416,338. BRAKE LEVER. FREDERICK CHARLES DENHAM, Wellington, England, assignor of one-half to Alan Francis Davey, Taunton, England. Filed Aug. 22, 1921. Serial No. 494,404. 8 Claims. (Cl. 74—81.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

1. In brake levers for motor vehicles, a toothed rack upon the brake lever, a bracket mounted on the footboard of the car, a pawl pivoted in this bracket, a transverse bar at the operative end of the pawl adapted



to engage with the teeth of the rack to hold the brake lever in the "on" position, the pawl being adapted to be turned out of engagement when not required.

1,416,339. CONDENSER FOR TEXTILE FIBERS. JOHN DEXTER, New Bedford, Mass. Filed Mar. 30, 1920. Serial No. 369,833. 10 Claims. (Cl. 184—102.)



7. A condenser apron oiler, comprising, in combination, a lubricant trough having a longitudinally-extending slot leading from the lower portion of the trough, means for supporting the trough in spaced relation to the apron and adjustable to vary the position of the trough relative to the apron, a lubricant wick within said slot and extending therefrom toward the traveling apron, and means for adjustably pinching the wick to vary the amount of lubricant delivered by the wick to the apron.

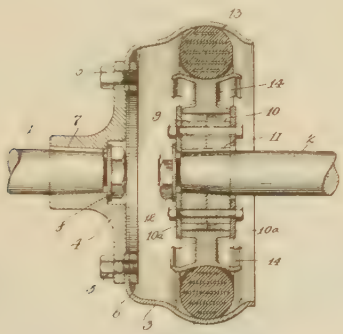
1,416,340. ANNUNCIATOR. WILLIAM T. DIPPEL, New York, N. Y. Filed May 27, 1919. Serial No. 300,049. 10 Claims. (Cl. 177—338.)

1. An annunciator system comprising in combination a signal displaying member movable step by step from a normal position to any one of a plurality of signal positions, a manually operable signal selecting member movable step by step from any one of a plurality of selected positions to which it has been manually moved to a normal position, electro-magnetic devices responsive to intermittent current for effecting the simultaneous movement of said members, a circuit controller for causing an intermittent current and operable independently of the movement of the selecting and display members, a source of current, a circuit including the said devices, circuit

controller and source of current, a circuit controlling device included in said circuit and effective to close the circuit automatically by the movement of the selecting member away from normal position and open the circuit

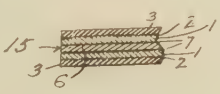
when the selecting member is in its normal position, and a manually operated switch also in said circuit for directly connecting the circuit controller to said electromagnetic devices.

1,416,341. SHAFT COUPLING. TIMOTHY C. DOBBINS, Denver, Colo. Filed Nov. 6, 1920. Serial No. 422,148. 20 Claims. (Cl. 64—96.)



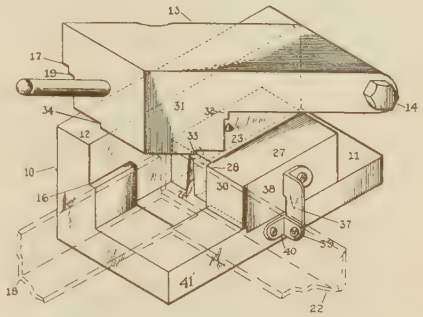
10. The combination with a shaft and a ring fixed to the shaft and concentric therewith, of a resilient cushioning body seated in said ring, a second shaft, a fish-bone gear composed of a plurality of complementary sections carried by said second shaft, a plurality of rocker shoes meshing with said gear and engaging said cushioning element and adapted to compress the resilient element progressively as they rock from normal position.

1,416,342. SOUND RECORD AND METHOD OF PRODUCING THE SAME. VICTOR H. EMERSON, New York, N. Y., assignor to Emerson Phonograph Company, Inc., New York, N. Y., a Corporation of New York. Filed Apr. 20, 1920. Serial No. 375,243. 21 Claims. (Cl. 18—48.4.)



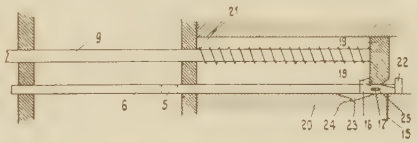
1. A method for forming sound records which comprises the following steps; preparing a thin metal disk, roughening the surfaces of the disk and applying record material directly to one surface and a disk of cardboard to the other surface thereof.

1,416,343. PROCESS OF CASTING CORNERS FOR METAL BEDS. IRVING A. FEATHERMAN, Brooklyn, N. Y. Filed Dec. 16, 1921. Serial No. 522,796. 4 Claims. (Cl. 22—116.)



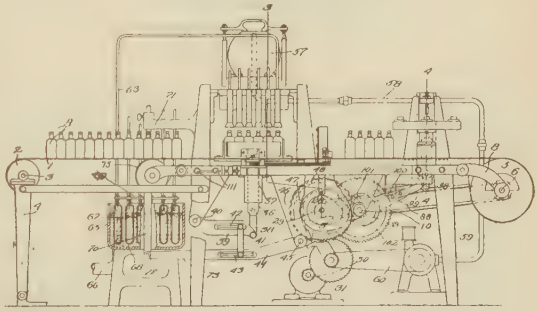
4. A chill comprising a base plate, a vertical wall thereon, a top plate pivoted to said vertical wall, a matrix located on said base, a downwardly depending portion on said top plate recessed to form a chamber, a swinging block which holds said matrix from lateral movement and means to hold adjacent ends of angle iron bars within said chamber.

1,416,344. CIRCULAR WEAVING MACHINE. CORNELIS JACOBUS FEUERSTEIN, Zwolle, Netherlands. Filed May 26, 1920. Serial No. 384,488. 4 Claims. (Cl. 139—7.)



1. In a circular weaving machine, a number of periodically reciprocated drawing bars, heddles reciprocated by said drawing bars and adapted to guide the warp threads, clutches arranged between the heddles and the drawing rods for connecting said drawing rods and heddles, and electromagnetic operating means for said clutches, each clutch including a lever arranged to fall by gravity to inoperative position upon deenergization of the electromagnetic means.

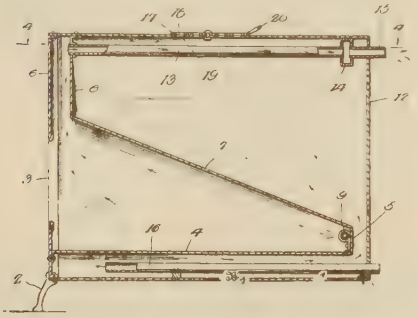
1,416,345. VACUUM FILLING MACHINE. ALPHONSE J. GOSSELIN, Rochester, N. Y., assignor to Standard Automatic Machine Company, Rochester, N. Y., a Corporation of New York. Filed Jan. 11, 1917. Serial No. 141,805. 60 Claims. (Cl. 226—76.)



2. Apparatus of the kind described, comprising a filling station equipped with means for filling bottles, means for pushing a quota of bottles from a position at one side of said station to a filling position underneath said filling means, a conveyer arranged in position to receive the bottles as pushed from said filling position by an oncom-

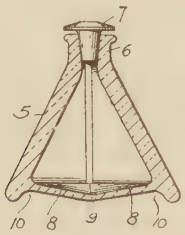
ing quota, stoppering mechanism mounted to receive the bottles as delivered by said conveyor, and means for operating said stoppering mechanism and said filling means in timed relation.

1,416,346. HEATER AND VENTILATOR. JOHN A. GREENE, Long Beach, Calif. Filed Oct. 8, 1920. Serial No. 415,660. 2 Claims. (Cl. 126—90.)



1. A heater comprising a casing having an opening in its front wall, a combustion chamber supported within the casing by the front wall thereof, the top, bottom and back of the combustion chamber being spaced from the walls of the casing, the top and bottom of the combustion chamber being respectively above and below the opening in the front wall of the casing and the interior of the casing constituting a heating chamber surrounding and closed to the combustion chamber, a burner supported within the combustion chamber at the back of the same, a fresh air pipe discharging into the space below the combustion chamber, and a heat-conveying instrumentality extending from the upper end of the combustion chamber to the top of the casing at the back of the same, said heat-conveying instrumentality, traversing the upper portion of the heating chamber and being closed thereto.

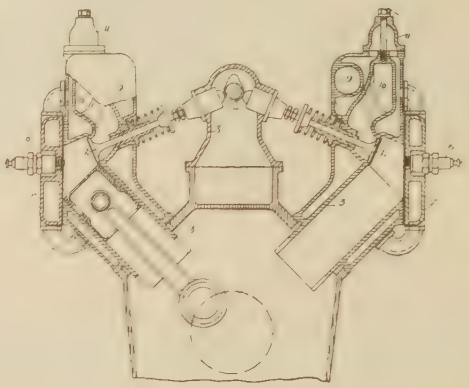
1,416,347. BOTTLE. GEORGE G. GREGORY, Denver, Colo. Filed July 21, 1920. Serial No. 397,867. 2 Claims. (Cl. 215—1.)



1. A bottle having a bottom surface directly beneath its mouth, the surface sloping gradually from the circumference of the bottle to a point in vertical alinement with the mouth, whereby to collect at said point a remainder of a liquid contents of the bottle when the bottle is mostly empty.

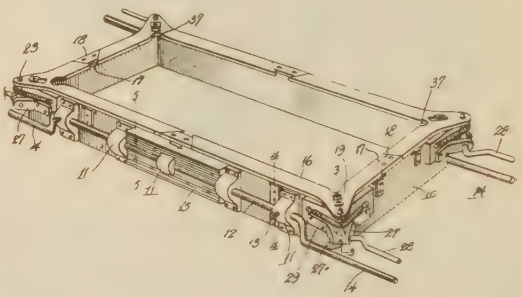
1,416,348. V-TYPE INTERNAL-COMBUSTION ENGINE. SYDNEY SLATER GUY, Finchfield, Wolverhampton, England. Filed Nov. 20, 1918. Serial No. 263,331. 1 Claim. (Cl. 123—55.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

In an internal combustion engine, a crank shaft, a crank case having upwardly convergent sides and a central support running along the top, a series of water-jacketed cylinders mounted at right angles in the opposite convergent sides of said crank case, a water pipe running along the top of each series of cylinders and communicating with the water jackets thereof, inlet and exhaust manifolds cast integrally with said cylinders, said exhaust manifolds being arranged below said water pipes, detachable water cooled cylinder covers on the outside of said cylinders, outside water connections between said covers and their respective cylinder water jackets, a self-contained detachable casing mounted on said central



support of said crank-case, a cam-shaft rotatably mounted within said detachable casing, inlet and exhaust valves on the insides of said cylinders the axes of opposing valve stems intersecting on the axis of said cam shaft, and valve tappets in said detachable casing in operative relationship with said cam shaft and abutting against the outer ends of said valve stems.

1,416,349. MOLDING FLASK. EDWARD C. HAFER, Chambersburg, Pa., assignor to James A. Hafer, Chambersburg, Pa. Filed May 19, 1919. Serial No. 297,989. 4 Claims. (Cl. 22—111.)

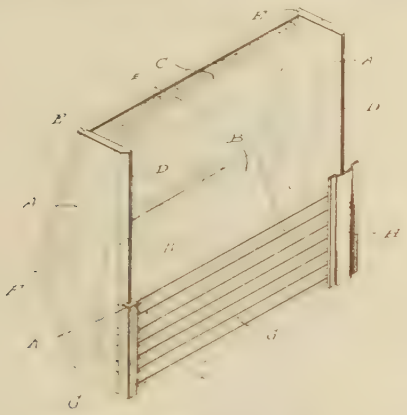


1. In a molding flask, a cope comprising an elongated frame adapted to contain a sand mold, brackets arranged exteriorly along opposite sides of the frame, a rod arranged at each side of the frame and engaging through the respective brackets, each rod having its end offset toward one edge of the frame to form handles, and means for securing the rods in the brackets for maintaining the handles in desired position.

1,416,350. LINING FOR CHIMNEYS AND OPEN FIREPLACES. HENRY HARVEY, Chicago, Ill. Filed Aug. 20, 1919. Serial No. 318,675. 1 Claim. (Cl. 126—130.)

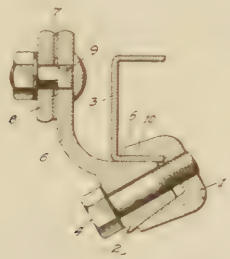
In a lining for fire places the combination of a front grate, a back plate composed of two sections, placed one upon the other, on a horizontal edge line, the lower plate inclined rearwardly and upwardly to meet the horizontal lower edge of the upper plate and the latter inclined upwardly and forwardly from the line connecting it with said lower plate, two side plates each connected by a rabbet joint to the back plate at its opposite ends, each of said side plates being formed with a vertical bevel edge from top to bottom, upright bars provided on their rear face with a groove fitting over the bevel edge of

said plate at the lower end of said plate, and having secured thereto the opposite ends of the front grate bars,



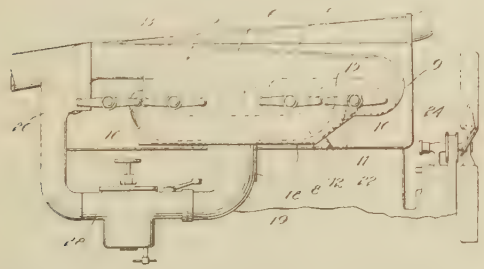
vertical front plates covering the upright bars at each side of the grate, and all secured firmly together substantially as shown and described.

1,416,351. CLAMP. CHARLES H. HATHAWAY, West Allis, Wis., assignor to Badger Manufacturing Corporation, Milwaukee, Wis., a Corporation of Delaware. Filed Jan. 20, 1921. Serial No. 438,686. 9 Claims. (Cl. 293—55.)



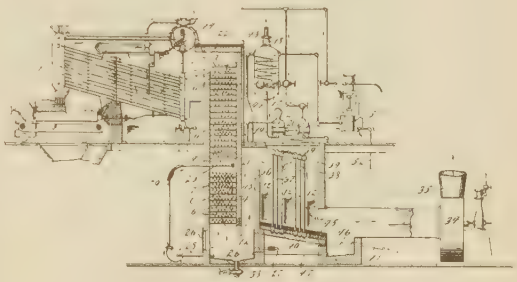
2. A clamp for gripping the flange of an automobile side bar and for fastening thereto an automobile bumper bracket, having, in combination, a pair of clamping members one of which is adapted to rest upon the upper face of the side bar flange and the other to engage the lower face thereof, and a member for holding the clamping members in wedging engagement with the flange and extending through both clamping members, the axis of said member being oblique to the plane of the flange so that said member produces a direct binding action on the flange.

1,416,352. MANIFOLD SHIELD. PHILIP C. HUNTLY, Chicago, Ill. Filed Aug. 22, 1921. Serial No. 494,077. 5 Claims. (Cl. 123—198.)



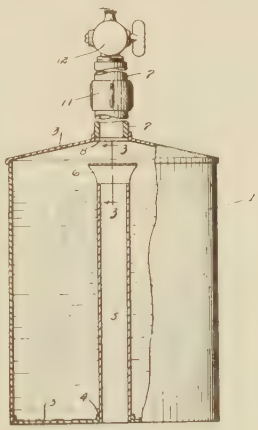
1. A shield adapted to partially enclose the intake and exhaust manifolds of an internal combustion engine, and a thermostatically controlled valve therein for automatically admitting or excluding outside air to maintain uniform temperature within said shield.

1,416,353. METHOD OF AND APPARATUS FOR OPERATING STEAM-BOILER ECONOMIZERS. DAVID S. JACOBUS, Jersey City, N. J., assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Original application filed Dec. 8, 1914, Serial No. 876,012. Divided and this application filed Nov. 4, 1919. Serial No. 335,727. 9 Claims. (Cl. 122—421.)



1. The herein-described method of operating a steam boiler, consisting in passing the gases over one part of an economizer, then passing them over another part of the economizer, and spraying water over the latter part of the economizer as the gases pass thereover.

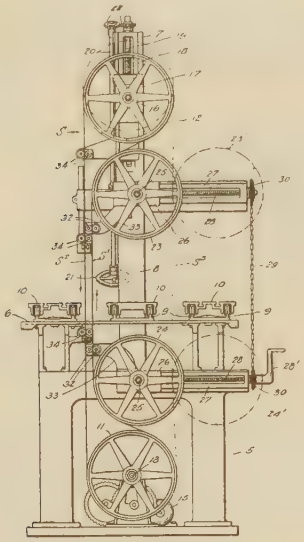
1,416,354. VACUUM SAMPLER FOR TANKS OF REFINED OIL AND GASOLINE. CHARLES E. JOHNSON, Gillespie, Ill. Filed Apr. 8, 1921. Serial No. 459,931. 1 Claim. (Cl. 137—18.)



A sampler for refined oils and gasoline, composed of a sample-receiver in the form of a chamber whose upper end is normally closed, and whose lower end is provided with an entrance-opening; a combined handle and vent-tube attached to the upper part of said receiver, and having its interior in communication with the upper interior of the latter, and having such a length that the receiver may be lowered into and raised from the bottom of the tank containing the liquid to be sampled through an opening in the top of said tank; a vertical filling-tube, the lower end of which is fixed in said entrance-opening in the lower end of said sample-receiver, and which filling-tube extends upwardly to a point near the top of said receiver upon the interior of the latter; a spreader-cap fixed over the open upper end of said filling-tube, and arranged to prevent the entering liquid from being forced upwardly directly into the open lower end of said com-

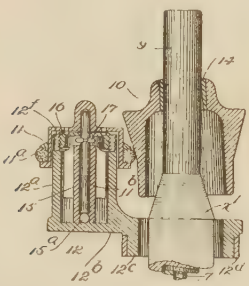
bined handle and vent-tube; and a vent-device to control the exit of air from said receiver after same has been lowered into the liquid to be sampled.

1,416,355. BAND-SAW MACHINE. ERIC JOHNSON, Seattle, Wash. Filed Nov. 29, 1920. Serial No. 427,010. 7 Claims. (Cl. 29—68.)



1. In a band-saw machine, the combination of a work table, a band-saw, wheels therefor, means for adjusting one of said wheels relative to the other horizontally movable means cooperating with said wheels whereby both leads of said saw are directed to travel in vertical parallel planes through the work table at various selected distances apart.

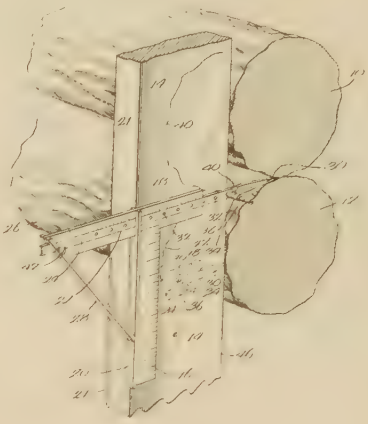
1,416,356. CAP-SPINNING FRAME. JOSEPH H. JONES, Winthrop, Mass., assignor of one-half to Robert Burgess, Newton Center, Mass. Filed June 7, 1921. Serial No. 475,632. 5 Claims. (Cl. 118—62.)



1. In cap-spinning devices, in combination, a revolving spinning element, a cap-controlling wheel or pivot, and a live cap fitted by means of a central hole to the blade or barrel of the spinning element and controlled by peripheral contact with the wheel or pivot, with the said central bore or opening made downwardly flaring so as to permit definite canting or tipping of the cap relative to the said blade or barrel, thereby securing better driving engagement of the cap with the spinning element.

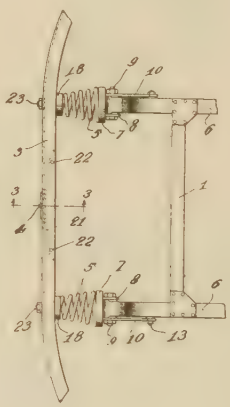
1,416,357. PROTRACTOR. FRANK OSCAR KNUUSI, Huron Mountain, Mich. Filed May 20, 1920. Serial No. 382,774. 4 Claims. (Cl. 33—41.)

1. In mechanism of the class described, a member adapted for movement along the edge of an article to be marked, a rod slidably mounted on the member for movement at an angle to the direction of operative movement



of the member, and a pencil device carried by and movable with the rod to effective marking positions within the marginal limits of the member.

1,416,358. AUTOMOBILE BUMPER. VICTOR KREFL, Eagle River, Wis. Filed Jan. 11, 1922. Serial No. 528,449. 5 Claims. (Cl. 293—55.)

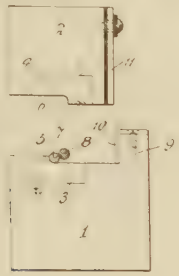


5. A device of the class described including a sectional bar having its sections pivotally connected and yielding means bearing against said pivotal point, means for connecting said bar to a vehicle including coil springs disposed between the bar and the vehicle, said means including additional means having connection with parts of the vehicle whereby to permit movement on the part of the vehicle without interfering with the relative positions of the coil springs.

1,416,359. METHOD OF SIDE WELDING WIRES. LAURENCE S. LACHMAN, New York, N. Y., assignor to Universal Electric Welding Company, New York, N. Y., a Corporation of New York. Filed July 12, 1920. Serial No. 395,590. 5 Claims. (Cl. 219—5.)

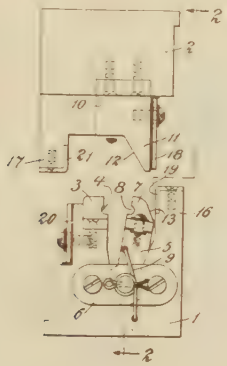
1. The method of side welding wires consisting in partially overlapping the wires longitudinally so that they will occupy a plane including the line of contact between

them, that is inclined to the plane of the finished work and to the line of welding pressure, passing an electric



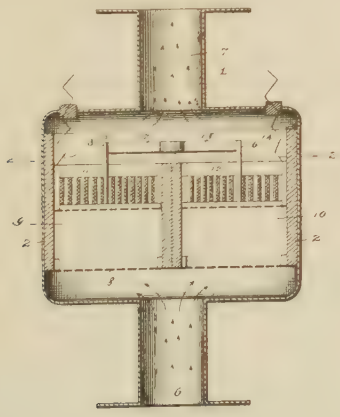
current transversely across the overlapped joint and applying pressure to force the wires into the same plane.

1,416,360. ELECTRIC WELDING DEVICE. LAURENCE S. LACHMAN, New York, N. Y., assignor to Universal Electric Welding Company, New York, N. Y., a Corporation of New York. Filed July 12, 1920. Serial No. 395,591. 9 Claims. (Cl. 219—4.)



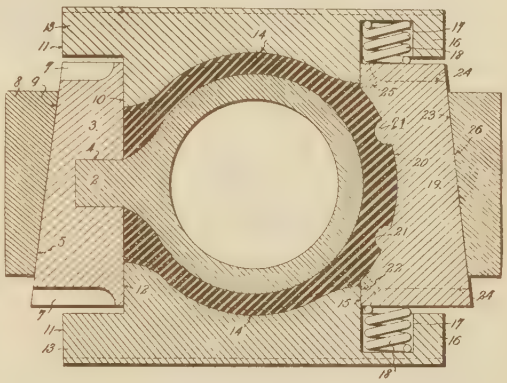
1. In an electric welding apparatus, a welding die comprising a pair of jaws adapted to grip the work in side contact and prevent displacement thereof transversely to the line of applied pressure and means adapted to engage one of said jaws and apply welding pressure thereto.

1,416,361. GAS DETECTOR. ARTHUR B. LAMB and ALFRED T. LARSON, Washington, D. C. Filed Mar. 4, 1919. Serial No. 280,577. 10 Claims. (Cl. 70—51.)



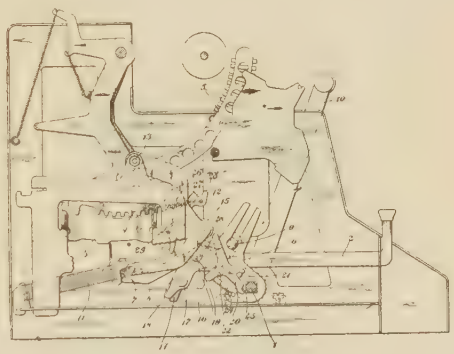
1. A gas detector comprising oppositely arranged expansible members, HC catalyzer placed in proximity to one of said members and means for detecting difference in expansion of said members.

1,416,362. MOLD FOR PNEUMATIC TIRES. HENRY M. LAMBERT, Portland, Oreg., assignor to Lambert Tire & Rubber Company, Akron, Ohio, a Corporation of Arizona. Filed Feb. 11, 1922. Serial No. 535,930. 11 Claims. (Cl. 18—38.)



1. In tire molds, a sectional core on which the tire is built, a sectional base annulus, means for centralizing the core with respect to said annulus, means for holding the sections of said annulus in place, a tread annulus, and side mold plates cooperating with said annuli to mold the exterior of the tire.

1,416,363. ADDING MACHINE. HARRY LANDSIEDEL, Norwood, Ohio, assignor to The Dalton Adding Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Sept. 20, 1919. Serial No. 325,096. 33 Claims. (Cl. 235—60.)

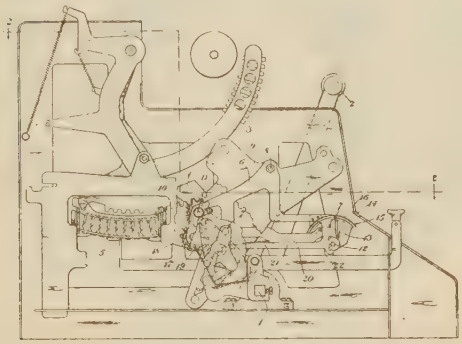


1. Mechanism of the character described, comprising a shaft rockable from and to a starting position, means for turning said shaft from its starting position, an actuator for turning the shaft toward its starting position, an additional actuator arranged to co-operate with the first-named actuator during a portion of the turning movement of the shaft, leaving the first-named actuator to turn the shaft independently of the second-named actuator for a portion of the turning movement of the shaft, and means for constantly increasing the energy of said additional actuator during the entire movement of said shaft from its starting position.

12. In an adding machine, a rock shaft arranged to be turned from and to a starting position, a spring, a lever connected with said spring, a cam operated by the shaft for actuating said lever to energize said spring as an incident to the turning of said shaft from starting posi-

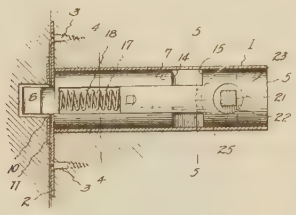
tion, a latch device supported by said shaft, and means for positioning said latch device for engagement by said lever to enable said spring to turn said shaft.

1,416,364. ADDING MACHINE. HARRY LANDSIEDEL, Norwood, Ohio, assignor to The Dalton Adding Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Feb. 2, 1920. Serial No. 355,751. 16 Claims. (Cl. 235—60.)



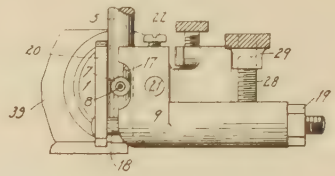
1. In an adding machine, adding racks, a pivoted frame, adding pinions supported in said frame and being movable into and out of mesh with said racks, cam pinions supported in said frame in mesh with said adding pinions, indicating devices in said frame for indicating the sum represented by the adding pinions, and elements operated by said cam pinions for moving said indicating devices.

1,416,365. DOOR LOCK. LARS J. LARSON, Seattle, Wash. Filed Apr. 29, 1920. Serial No. 377,495. 1 Claim. (Cl. 70—29.)



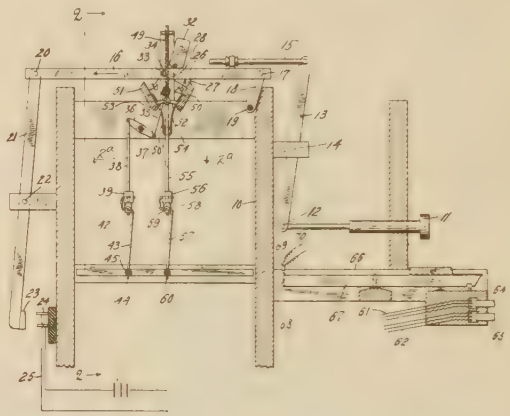
A door latch and lock comprising in combination a tubular casing, guide bars fixed in spaced relation within the casing at opposite sides thereof; said casing and bars having transverse bores therethrough adjacent their inner and outer ends, a bolt slidable longitudinally between the guide bars, having a latch head at its outer end and having laterally turned wings at its inner end, disposed at upper and lower sides of the inner end bore, also having slots longitudinally therein adapted to move in registration with said bores and having an abutment therein, a sleeve revoluble in the inner end bore having a semi-annular flange thereon providing abutments for engaging the said wings to move the bolt inwardly, an actuating rod for the sleeve, a spring engaging the bolt and normally retaining it in extended position, an arm pivotally mounted at one end between the guide bars and adapted to be moved at its opposite end into engagement with said shoulder to hold the bolt in extended position, a rod extended through the inner end bore of the casing, a cam fixed on said rod and adapted to be moved thereby to retain the locking arm from holding relation with the bolt.

1,416,366. GRINDER FIXTURE. ARTHUR C. LINDHOLM, Springfield, Mass. Filed Feb. 17, 1921. Serial No. 445,841. 15 Claims. (Cl. 51—217.)



1. As an improved article of manufacture, a grinder fixture comprising a body provided with means for holding a contact while being ground, and having a chuck-engaging shank extending therefrom.

1,416,367. COMBINATION ORGAN-STOP ACTION. ELEK LOUIS, New York, N. Y.; Fanny Louis being administratrix of said Elek Louis, deceased. Filed June 11, 1919. Serial No. 303,347. 2 Claims. (Cl. 84—345.)

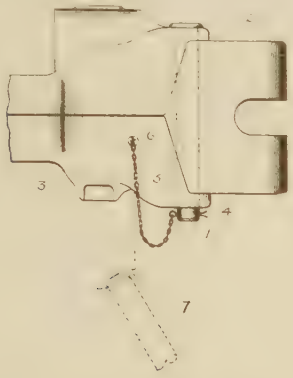


1. In a combination organ stop-action, the combination with a horizontally disposed shiftable stop-bar, of a rocker pivotally mounted on said bar having two distinct portions extending at an angle to each other, either one of said portions being adapted to project below the underface of said bar when the other is above said underface, a shiftable bar for setting said rocker, two fans connected to move in opposite direction to engage either portion of said rocker for shifting said stop-bar endwise, two horizontally extending levers, one of said levers being connected with said setting-bar and the other one with said fans, electro-magnets, one carried by the free end of each of said levers, said magnet being in branch circuits, a downwardly extending bar upon each of said levers provided with an armature in operative relation to the respective electro-magnet, said downwardly extending bars being each provided with a lug, a bar having one of its ends in operative relation to said lugs, an armature carried by the other end of said last-mentioned bar, and an electro-magnet actuating said last-mentioned armature, said last-mentioned electro-magnet being in a circuit adapted to be closed simultaneously with either one of said branch circuits.

1,416,368. CAR COUPLING. THOMAS E. MCCARTHY, Two Harbors, Minn. Filed Nov. 14, 1921. Serial No. 514,850. 2 Claims. (Cl. 213—13.)

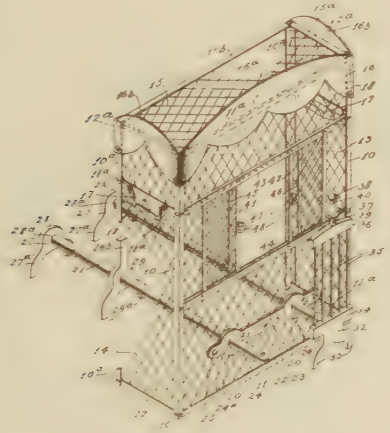
1. The combination with a draw bar head having a vertically disposed knuckle pin therein and a cotter key through the lower end of the pin for retaining it in posi-

tion, of flexible suspending means attached at one end to the key and at the other end to the draw bar head



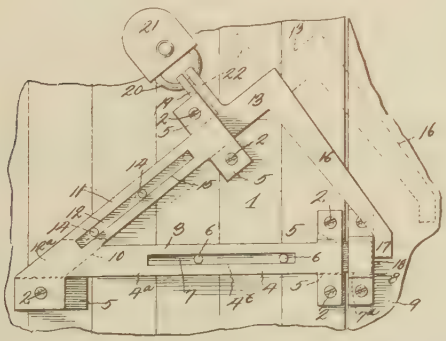
whereby the lower portion of a broken pin will drop from the head and be suspended therefrom for the purpose described.

1,416,369. FIREPLACE ANDIRONS AND SCREEN. JOHN W. MAHONEY, Waterbury, Conn. Filed Feb. 3, 1922. Serial No. 533,990. 12 Claims. (Cl. 126—202.)



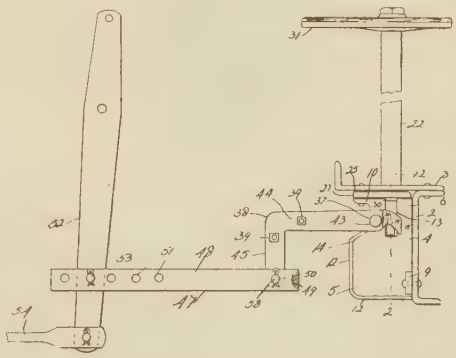
1. In a combination fire-place fixture, a pair of andirons, and a screen, the forward ends of said andirons extending through and supported by said screen.

1,416,370. LATCH. MARTIN J. C. A. MAURER, Springfield, Ill. Filed Oct. 31, 1921. Serial No. 511,847. 6 Claims. (Cl. 292—150.)



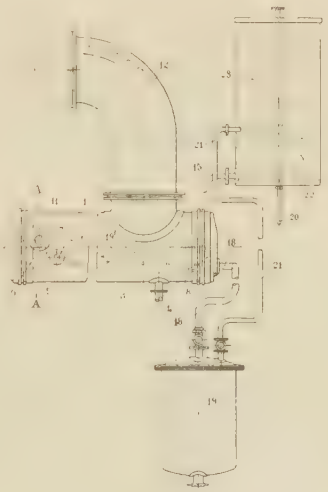
1. The combination with a slidable latch bar, one end of which cooperates with a keeper, of means for preventing longitudinal movement of said latch bar in either direction, said means comprising an angular sliding latching member having arms simultaneously movable into and out of registration with the ends of the latch bar.

1,416,371. CAR BRAKE. RUSSELL H. MINICH, Philadelphia, Pa., assignor to Minich Railway Appliance Corporation, Philadelphia, Pa., a Corporation of Delaware. Filed Nov. 10, 1920. Serial No. 422,988. 8 Claims. (Cl. 74—120.)



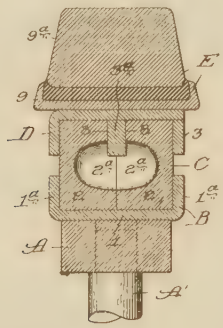
2. A car brake comprising a cage, a staff journalled therein, a lever journalled on the outside of the cage, means threaded on said staff for coaction with the lever to actuate the latter the distance between the coacting points of the lever and said means and the fulcrum point of said lever changing during the movements of said means.

1,416,372. PROCESS OF PREPARING STABLE, PREDIGESTED FOODS. EUDO MONTI, Turin, Italy. Filed Oct. 3, 1916. Serial No. 123,563. 5 Claims. (Cl. 99—1.)



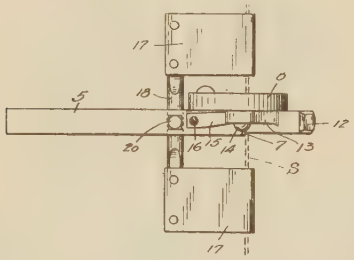
5. The method of preparing stable, predigested foods, which comprises crushing and straining off the juice from grapes, treating the remaining pomace, including the peels with SO_2 in water, extracting the mass thus treated in water at about 40° C., concentrating the extract in vacuum, and treating the food with the concentrated extract.

1,416,373. CUSHION-WHEEL CONSTRUCTION. JOSEPH J. MORAND, Chicago, Ill., assignor to Morand Cushion Wheel Co., Chicago, Ill., a Corporation of Illinois. Filed Jan. 5, 1922. Serial No. 527,089. 3 Claims. (Cl. 152—36.)



1. A cushion wheel construction comprising an inner annular channel-form rim and an outer annular channel-form rim, said rims being separated by an annular space and having their flanges extending towards each other; an interposed two-part cushion-element comprising two annular elastic rubber cushion members provided at their inner surfaces with recesses of circular contour, each cushion-element being provided with an outer series of bushings and an inner series of bushings which are staggered with relation to each other and with relation to said recesses; an outer series of bolts extending through the outer bushings and through the flanges of the outer cushion-rim; and an inner series of bolts extending through the inner series of bushings and through the flanges of the inner cushion-rim.

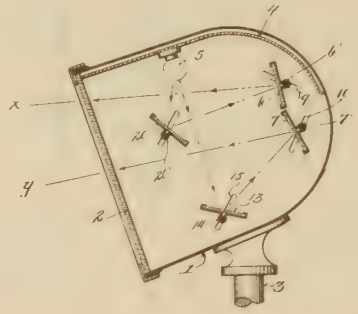
1,416,374. SAW SET. PHILIACE MORIN, Seattle, Wash., assignor to Morin Saw Guage Mfg. Co., Seattle, Wash., a Corporation of Washington. Filed Mar. 29, 1920. Serial No. 369,521. 2 Claims. (Cl. 76—65.)



1. In an implement of the character described, the combination with the implement body comprising stock and bracket members rigid with each other, one end of said stock being provided with two plane surfaces in angular relations with each other, and a swage pivotally connected to said bracket member, of adjustable means connected to said body member and arranged to be supported by the points of a saw being operated upon for positioning said stock to have the angle of said surfaces located at a predetermined distance from a line projected through the points of the saw teeth.

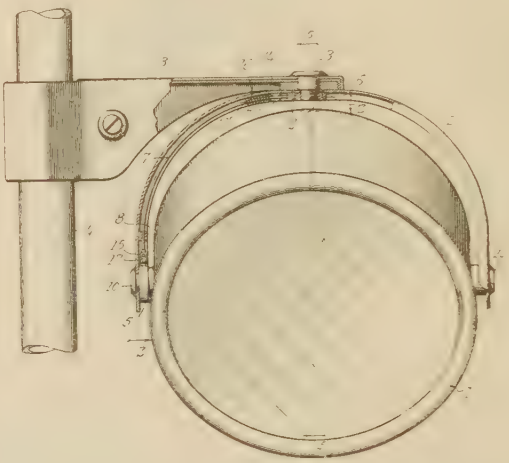
1,416,375. AUTOMOBILE HEADLIGHT. EDWARD H. MUELLER, Hartford, Conn. Filed Apr. 12, 1920. Serial No. 373,299. 1 Claim. (Cl. 240—41.)

A head light comprising a casing having its front inclined downwardly, a lamp mounted within the casing above the horizontal line of vision with respect to the inclined edge thereof, a pair of spaced mirrors mounted in the casing below the lamp at predetermined angles to reflect the rays of light from said lamp rearwardly,



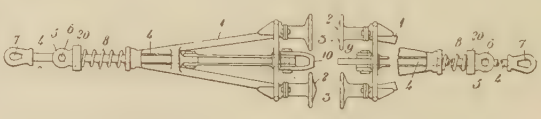
and a pair of mirrors mounted in the rearward portion of the casing at predetermined angles to reflect the rays of light from the first mentioned pair of mirrors forwardly.

1,416,376. LAMP-POSITION CONTROLLER. WALTER S. NATHAN, Milwaukee, Wis. Filed June 28, 1920. Serial No. 392,170. 8 Claims. (Cl. 240—7.)



8. A lamp position controller comprising relatively movable members mounted at spaced points to rotate about different axes, and means cooperating with the two members and dependent upon the relative position thereof for limiting the movement of one of the members.

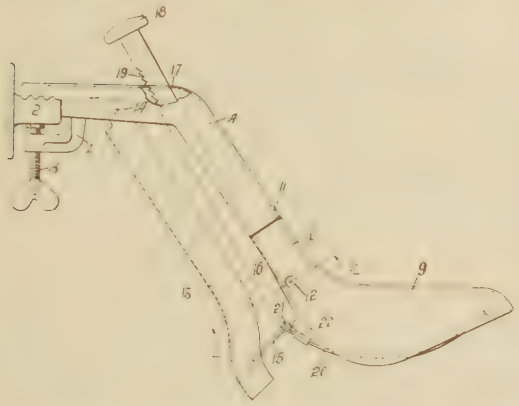
1,416,377. BUFFER DEVICE FOR CARS. SVANTE GUSTAF HERMAN ORELL, Stockholm, Sweden. Filed Oct. 16, 1919. Serial No. 331,216. 3 Claims. (Cl. 213—42.)



1. A buffer device for cars, comprising a fork member journalled on the car and capable of being swung in a horizontal direction and carrying a pair of impact members, one of said impact members having a surface adapted to project into a cooperating member, the surfaces of the cooperating members being congruous, whereby when the members are in intergripping relation the surfaces of the impact members will be in close contact at all points

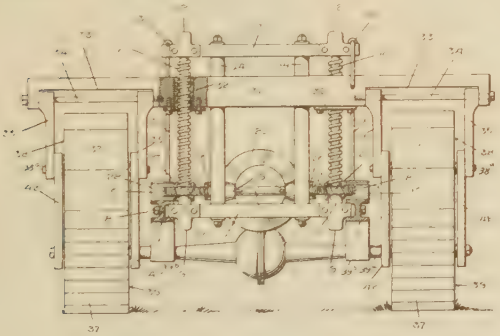
and be self-maintained against lateral displacement and against swinging movement relatively to each other, both intergripping forks thus forming at said surfaces a rigid system in the horizontal direction, and means for holding the impact surfaces in engagement with each other.

1,416,378. SHOE HOLDER. SOREN C. PEDERSEN and ALBERT J. NOWAKOWSKI, Toledo, Ohio. Filed Apr. 8, 1921. Serial No. 459,655. 4 Claims. (Cl. 12—128.1.)



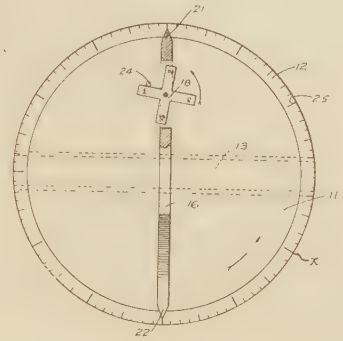
1. In a shoe holder, a rigid shank bar, a foot member detachably carried thereby, a heel member pivotally projecting downward from the shank, and means including a bowed spring yieldingly connecting the heel and foot members and operable to impart inward or outward relative movements thereto.

1,416,379. TRACTION ENGINE. VALLEY VIRGIL PEONE, Chewelah, Wash. Filed Sept. 8, 1920. Serial No. 408,993. 3 Claims. (Cl. 180—9.1.)



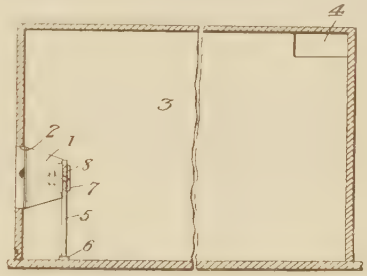
1. In an engine equipped tractor of the character described, the combination with the tractor frame, the said frame including a bottom cross beam, uprights rigidly mounted on the said bottom cross beam and a cross head rigidly sustained on the upper ends of the said uprights; of a pair of oppositely disposed vertical jack screws one for each side of the machine whose lower ends travel in the bottom cross beam and whose upper ends travel in the cross head, an endless track mechanism located at each side of the tractor frame, means for mounting the rear end of the tractor frame and the endless treads so that the rear ends of the treads constitute the rear support for the tractor frame, a rotary support for the front end of each endless tread, mechanism on the tractor for raising and lowering the front ends of the endless treads, the said mechanism including a cross beam located above the tractor frame, the said beam having internally threaded bearings for engaging the jack screws, and guide apertures for engaging the fixed uprights and power transmission operable from the engine and including drive gears engaging the jack screws for applying rotation to the said screws for raising and lowering the cross beam and hanger devices on the opposite ends of the said cross beam that sustain the front ends of the endless treads at their respective ends.

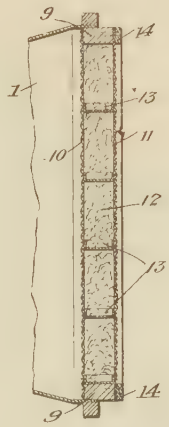
1,416,380. CHARTOMETER. WALTER EJLERT CHRISTIAN PETERSEN, Chicago, Ill. Filed May 21, 1920. Serial No. 383,042. 2 Claims. (Cl. 33—141.)



2. A measuring device comprising a disk having a scale delineated around its outer edge, an indicator diametrically disposed with respect to said disk and pivotally connected therewith, whereby the distance traversed by the peripheral edge of said disk may be determined, a pin projecting from said disk and means for indicating the number of revolutions completed by said disk, said last named means comprising a rotatable member having a plurality of radially extending arms positioned to be engaged successively during successive revolutions of the disk by said pin.

1,416,381. AIR-CLEANSING DEVICE AND VENTILATOR. WILLIAM MAXWELL REED, Louisville, Ky., assignor to Louisville Auto Painting and Trimming Company, Louisville, Ky., a Corporation of Kentucky. Filed Jan. 14, 1921. Serial No. 437,182. 7 Claims. (Cl. 98—33.)

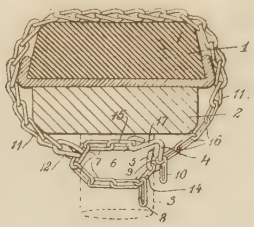




4. In an air filtering or circulating device, the combination with a drying room, chamber or the like, of a funnel

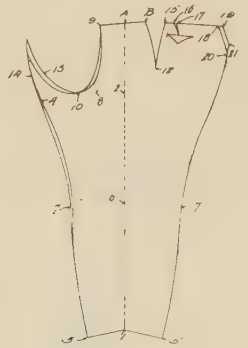
shaped tubular casing adapted to have its large end positioned in an opening in the wall of said room or chamber, means for supporting its opposite end, a frame positioned in said large end of the funnel shaped casing, a screen secured to each side face of said frame, a series of pans and a filling of oil saturated filtering material confined within the frame and between said screens, and a fan mounted in the small end of the funnel shaped casing for drawing the air therethrough and through the filtering material and forcing the same through and out of the drying room or chamber.

1,416,382. CHAIN NONSKID UNIT. JOHN R. REYBURN, Fairfield, Conn., assignor to American Chain Company, Incorporated, Bridgeport, Conn., a Corporation of New York. Filed May 8, 1917. Serial No. 167,166. Renewed Mar. 24, 1922. Serial No. 546,517. 11 Claims. (Cl. 152—2.)



9. In an anti-skid device, a chain to surround a spoke, a separate tread member, and means, common to the spoke chain and tread member, to secure the ends of the spoke chain and the ends of the tread member together.

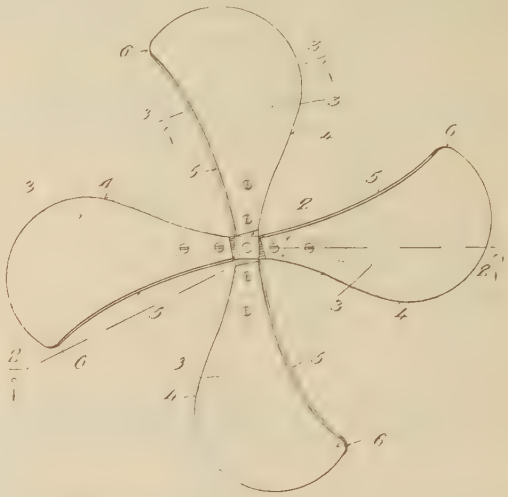
1,416,383. PATTERN FOR TROUSERS. ARTHUR J. ROSE, New York, N. Y. Filed Mar. 19, 1920. Serial No. 367,247. 2 Claims. (Cl. 33—12.)



1. A pattern for trousers having a single rear seam, formed with its side edges curved downwardly and outwardly, one curve being the line of the fly while the other is one of the lines of the seat, the top edge of the pattern being formed with a substantially U-shaped cut-out portion constituting the crotch line, one side of this latter cut-out portion intersecting the seat line, the pattern being shaped along its side edges to form a leg portion below the said single fly and seat line.

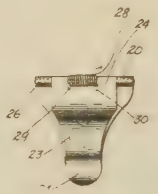
1,416,384. ELECTRIC FAN. BRUNO SCHMELZER, Jersey City, N. J. Filed Mar. 8, 1921. Serial No. 450,669. 9 Claims. (Cl. 170—159.)

1. In a device of the class described, a blade having a curved cutting edge constructed and arranged to cut the air in a plane at an angle to the axis of rotation and a curved rear edge, the body or working face of the blade



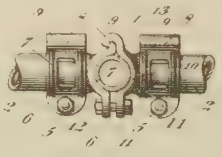
being dished, all of the edges of the blade lying in the same plane, the rear edge having a rearward extension serving to give greater spread to the blast of air.

1,416,385. HAT HOLDER. PAUL SCHMIDT, Passaic, N. J. Filed Dec. 5, 1921. Serial No. 519,809. 1 Claim. (Cl. 24—253.)



A clothing support clip comprising a flat sheet metal plate substantially triangular in outline, means for securing said plate to a support, a plurality of transverse serrations on said plate, hollow beadings integrally formed on the edge of said plate opposite said serrations, a second sheet metal plate having a centrally outwardly bowed portion, transverse serrations on said plate registerable with the first named serrations, extensions on the edge of said second plate opposite the serrations and fitting between said beadings, pintles projecting laterally from said extensions suited to enter said beadings, a coiled torsional spring between said extensions, the ends of said spring being operative to close the second plate upon the first, and means formed with said second plate for confining said spring in operative position.

1,416,386. CLAMP SUPPORT. HOWARD A. SELAH, Johnstown, Pa., assignor, by mesne assignments, to Jacob F. Kress, Johnstown, Pa. Filed Dec. 13, 1919. Serial No. 344,535. 10 Claims. (Cl. 285—108.)



1. A clamp support comprising a female portion adapted to partially surround a structural member provided with

an integral hook at one end, a perforated ear at the other end, a male portion co-operating therewith provided with an integral outwardly extending lug adapted to be seated within the hook and an ear at the other end having a perforation adapted to register with that in the ear of the female portion, the hook and lug ends being tapered and rounding whereby said members can be located in position by rotation or by sliding endwise at least one of said members being provided with an integral extension carrying one of a similar pair of clamping members arranged at an angle thereto.

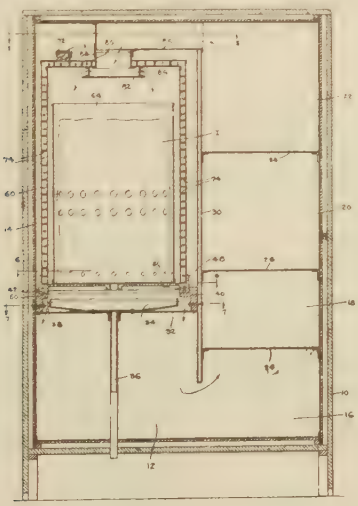
1,416,387. FOOD PRODUCT AND PROCESS OF MAKING THE SAME. DANIEL G. SELL, Kansas City, Mo. Filed May 19, 1919. Serial No. 298,133. 1 Claim. (Cl. 99—11.)

A food product comprising a mixture of sugar and peanut butter which have been mixed together by boiling and allowed to crystallize, said crystallized sugar and peanut butter being of a consistency which will readily liquefy in substantially one part of water two parts of the product.

1,416,388. PROCESS OF REPRODUCING OIL PAINTINGS. HENRY P. G. STEEDMAN, London, England, assignor, by mesne assignments, to William Boyd, New York, N. Y. Filed July 2, 1920. Serial No. 393,715. 2 Claims. (Cl. 41—25.)

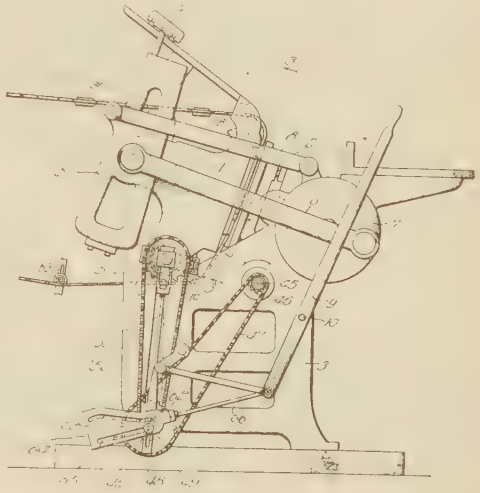
1. The herein described process for the reproduction of oil paintings, which consists in preparing a cliché having upon its surface irregularities corresponding to the canvass grain, brush marks and variations of surface levels of the original painting, applying an unvulcanized, vulcanizable rubber composition in the form of a soft dough to said cliché, without the application of heat, and pressing the said rubber dough upon and into the surface of the cliché so as to produce a perfect impression in the soft rubber dough of the surface variations of the cliché, and then vulcanizing the rubber dough to harden it and preserve said variations of surface, and forming an embossing die, and then embossing registering colored prints of the painting with the die so formed.

1,416,389. REFRIGERATOR. FRANK STOLTMAN and WALTER SUMNER, Minneapolis, Minn. Filed Sept. 21, 1921. Serial No. 502,136. 2 Claims. (Cl. 62—69.)



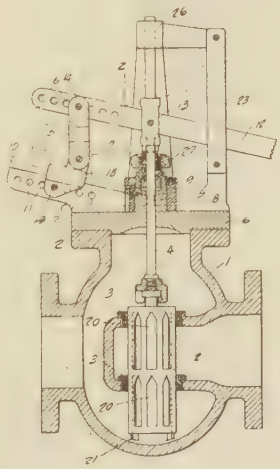
1. A refrigerator comprising top, bottom and side walls for enclosing an ice chamber and food compartments, a removable ice compartment for said ice chamber, a removable vacuum casing surrounding said ice receptacle, a pipe for connecting the upper food compartment with the top of said casing when the latter is in place, said ice receptacle having perforations for the passage of chilled air, and an open work support for said ice receptacle which permits the chilled air to pass downwardly therethrough.

1,416,390. PRINTING MACHINE. JOHN S. THOMPSON, Chicago, Ill. Filed Aug. 12, 1918. Serial No. 249,373. 18 Claims. (Cl. 101—61.)



1. In a printing press of the type wherein printing units are successively presented in printing position, the combination of a continuous conveyor having openings therethrough, type-high printing units received in said openings, and means comprising a binding member for said type units for removably securing the same in the openings on said conveyor.

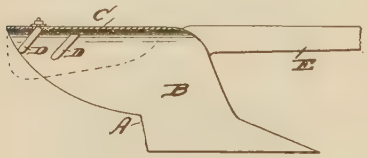
1,416,391. VALVE. JOHN VAN BRUNT, Flushing, N. Y., assignor to Combustion Engineering Corporation, New York, N. Y., a Corporation of New York. Filed July 23, 1920. Serial No. 398,400. 7 Claims. (Cl. 251—41.)



6. The combination of a valve-casing, a valve reciprocating therein and a valve-stem projecting therefrom, with

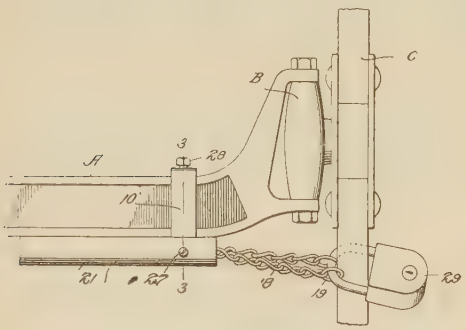
a lever connected to said valve-stem, an adjustable fulcrum link for said lever, an abutment for supporting the lower end of said link, means for adjusting both ends of said link along lines substantially parallel to the axis of said lever when said valve is in closed position without changing the position of said lever, said valve-casing having a projection surrounding said valve-stem and said abutment having an extension surrounding said projection, and a nut upon said projection securing said abutment to said valve-casing.

1,416,392. PLOW. RALPH WHIPPLE, Detroit, Mich., assignor of one-half to Carl H. Michell, Detroit, Mich. Filed Nov. 19, 1920. Serial No. 425,224. 2 Claims. (Cl. 97—18.)



2. In a plow, a mold-board, an overhanging portion adapted to direct the soil received from the mold-board back into the furrow, and a plurality of cutters extending downwardly and rearwardly from the rearward end inner face of the overhanging portion to pulverize the soil deflected into the furrow.

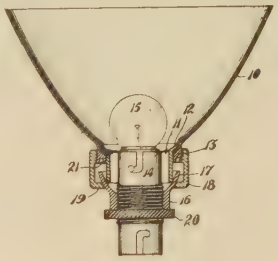
1,416,393. AUTOMOBILE AND VEHICLE LOCKING DEVICE. TOMASO J. WILLETT, Louisville, Ky. Filed Nov. 6, 1919. Serial No. 336,175. 6 Claims. (Cl. 188—31.)



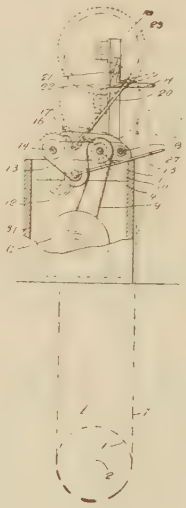
1. A vehicle lock comprising a member adapted to be secured to the axle of a vehicle in proximity to a supporting wheel, said member having a pair of parallel passages therein, an anchoring element having its end portions slidable in said passages respectively and held against disengagement from the member, spring means constantly tending to hold said element at the limit of its movement in one direction, and a lock engageable with the ends of the element to connect the same with an adjacent wheel.

1,416,394. FOCUSING DEVICE. WILLIAM G. WOOD, San Francisco, Calif., assignor to Berkeley Light Corporation, San Francisco, Calif., a Corporation of Nevada. Filed Sept. 23, 1920. Serial No. 412,264. 3 Claims. (Cl. 240—44.)

1. In a headlight or projector, a reflector having a boss arranged in its base, a lamp socket carried loosely within the boss, an adjusting member on the socket having a bell-shaped portion to fit over the end of the boss and clamping means carried by the reflector to fix the adjusting member in any desired position with reference to the boss whereby to retain the socket member in adjusted position.



1,416,395. HOD ELEVATOR. CHARLES W. ANDERSON, Brooklyn, N. Y. Filed Apr. 11, 1917. Serial No. 161,343. 1 Claim. (Cl. 192—116.)

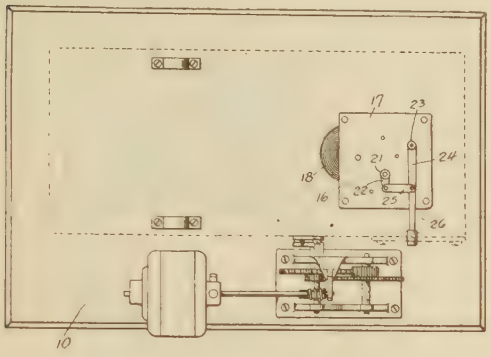


As an article of manufacture, a power control mechanism for hod elevators or the like, comprising a power pulley, a drive pulley, means including a movable member operable to connect and disconnect said pulleys at will, a shaft upon which said movable member is pivotally mounted and adapted to swing normally to disconnecting position, means to manually swing said movable member to connecting position, a ratchet fixed to move positively with said movable member, a supporting frame for supporting all of said parts as a single entity which may be moved into and out of cooperative relation with an elevator at will, and a device also comprised in said entity and operable normally to engage the ratchet for preventing swinging of the movable member to disconnecting position, said device including means by which it may be readily connected to be operated by the elevator mechanism.

1,416,396. PHOTOGRAPHIC-TRAY ROCKER. MIKE E. ANDERSON, Clarksville, Ark. Filed July 2, 1920. Serial No. 393,614. 2 Claims. (Cl. 74—14.)

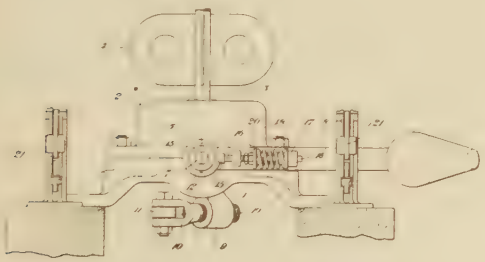
1. Means for operating a rockable element, comprising a depending plate carried by the rockable element and

provided with an inclined slot, a horizontally swingable arm disposed within said slot, and means for swinging



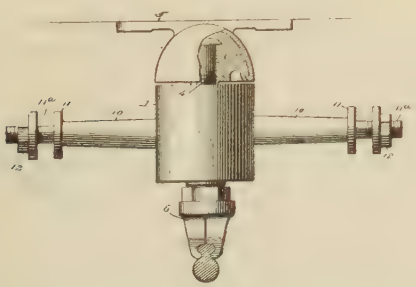
said arm back and forth whereby its engagement and movement within said slot will impart movement to said rockable element.

1,416,397. SWITCH STAND. WILLIAM MILTON BROWN, Johnstown, Pa. Filed Sept. 29, 1921. Serial No. 504,183. 5 Claims. (Cl. 246—286.)



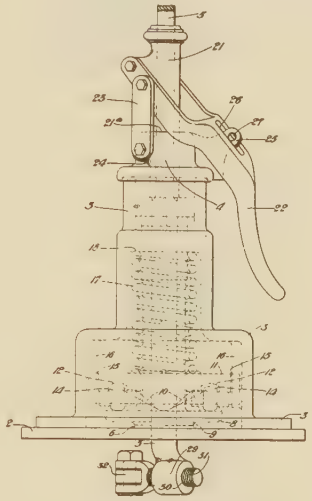
2. In a switch stand having a vertical target shaft, an operating shaft operatively connected to said target shaft, and an operating lever mounted to freely rotate on said operating shaft, a collar secured to said operating shaft, and resilient means connecting said lever and said collar, said means being adapted to remain in operative position during the normal operation of said stand and to automatically release said shaft when the switch is trailed.

1,416,398. TROLLEY GUARD. GEORGE GLENN COOPER, Hillsboro, Ill. Filed Oct. 7, 1921. Serial No. 506,000. 2 Claims. (Cl. 191—35.)



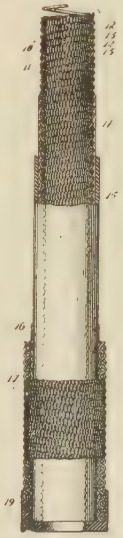
1. A device of the type described, including a casing, a trolley wire clamp, an insulated means of connection between said casing and said trolley wire clamp, said casing having laterally extending arms provided with integral washer-forming members, means threaded upon said arms adapted to function with said washer-forming members for the attachment of guards to said arms, and an overhead suspending member for said casing.

1,416,399. SWITCH STAND. ISRAEL K. DIXON, Johnstown, Pa. Filed Mar. 9, 1922. Serial No. 542,376. 4 Claims. (Cl. 246—287.)



1. A switch stand comprising a casing, a tubular spindle mounted for rotation within said casing, said spindle being provided with an outwardly extending flange at its lower end having upwardly projecting cam faces thereon, a target shaft mounted within said spindle and extending through said casing at its upper and lower ends, a roller bearing plate mounted for vertical movement within said casing, rollers journaled in said plate, resilient means for holding said plate under tension against said cam faces, and means for locking said spindle to said target shaft.

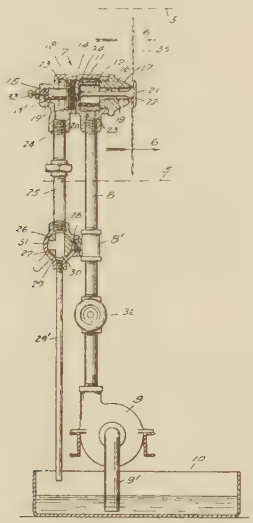
1,416,400. HOSE AND METHOD OF MAKING SAME. NATHANIEL S. DODGE, Emeryville, Calif. Filed Sept. 10, 1919. Serial No. 322,917. 4 Claims. (Cl. 137—90.)



1. A hose formed of fiber and wire interwoven, the wire being introduced circumferentially and arranged in alter-

nate or semi-alternate spirals and held and covered by longitudinal fiber strands, an oil resisting plastic cover enclosing the woven structure, a fabric outer jacket for reenforcing the plastic covering and protecting it from external injury, and means mounted upon the ends of the hose thus formed for preventing the seepage of liquid into the wall structure thereof.

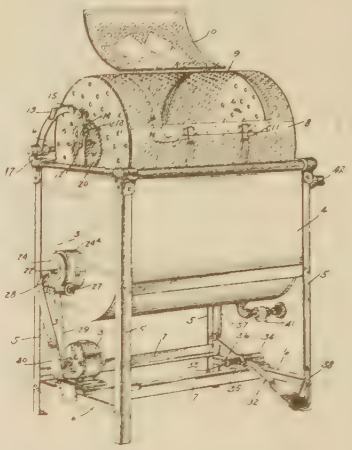
1,416,401. AIR-WASHING DEVICE. WILLIAM L. DUDLEY, Seattle, Wash., assignor to Western Blower Company, Seattle, Wash., a Corporation of Washington. Filed May 14, 1920. Serial No. 381,282. 1 Claim. (Cl. 299—59.)



In apparatus of the character described, the combination of a spray-head consisting of a body provided interiorly with a bore and two chambers located at opposite sides thereof, a nozzle secured to one end of said body and affording an outlet for one of said chambers, a deflector for the discharge end of said nozzle, a rod rigid with said deflector and extending through said bore and both of said chambers into a guideway provided in the end of the body remote from said nozzle, a piston rigid with said rod within the body bore, said piston being arranged to cooperate with the portion of the rod within said guideway to maintain the deflector in axial alignment with the nozzle orifice, a pipe for supplying water into the body between said opening and the piston, a second pipe connected with the first named pipe and also with a chamber provided in the body at the opposite side of the piston from said opening, and a three-way valve provided in the second named pipe whereby water may be successively admitted into and withdrawn from said chamber for regulating the piston to cause said deflector to be respectively moved from and toward the discharge opening of the body.

1,416,402. PHOTOGRAPHIC-PRINT-WASHING MACHINE. GLEN M. DYE, Minneapolis, Minn., assignor to Pako Corporation, Minneapolis, Minn., a Corporation of Delaware. Filed Mar. 6, 1920. Serial No. 363,854. 11 Claims. (Cl. 95—93.)

11. In a machine for washing photographic prints and the like, the combination with a tank, of a rotary perforated drum working therein, and means for lifting the

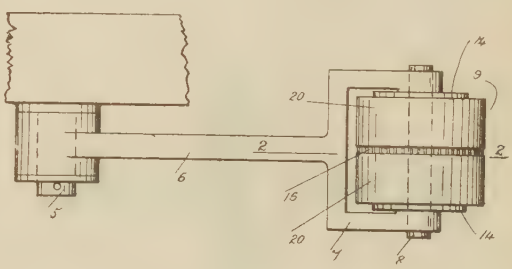


drum out of working position and for returning the same to working position.

1,416,403. METHOD AND MEANS FOR CLEANING SILVER, GOLD, PLATINUM, AND OTHER ARTICLES. WILBER W. EVERTS, Rochester, N. Y. Filed July 6, 1918. Serial No. 243,732. 4 Claims. (Cl. 204—7.)

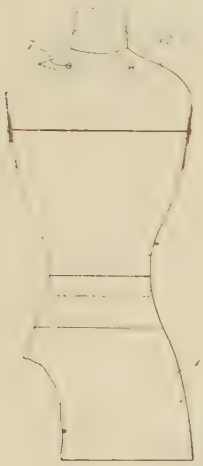
1. The method of cleaning the surface of an article which consists in immersing the article in a salt solution containing a bimetal plate.

1,416,404. FEED ROLLER. JAMES T. FAY and LAWRENCE B. GRASBERGER, Richmond, Va. Filed Apr. 27, 1921. Serial No. 465,038. 3 Claims. (Cl. 271—42.)



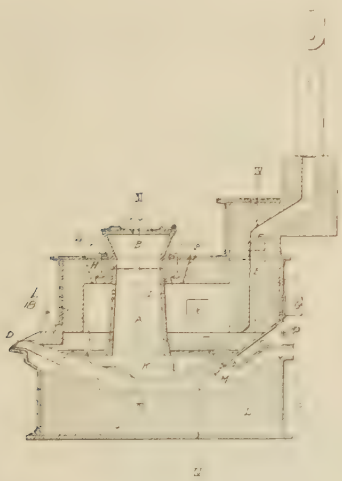
1. A feed roller for a paper feeding device, comprising a revoluble pin, two spools secured on the pin, a serrated disk secured between the two spools, and bands of elastic material encircling the said spools and formed of substantially the same diameter as the said disk.

1,416,405. DRESS FORM. EDMUND GURNEY, Portland, Oreg. Filed Dec. 4, 1919. Serial No. 342,426. 9 Claims. (Cl. 223—18.)



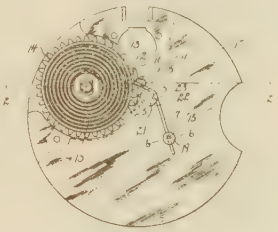
1. A dress form divided horizontally across the bust to form a shoulder portion and a main body portion, and pivot means connecting the shoulder portion to the body portion at the opposite sides thereof holding said shoulder portion against movement laterally but permitting it to swing forwardly and backwardly.

1,416,406. FURNACE. LEONARD CHARLES HARVEY, county of Surrey, England. Filed Aug. 23, 1918. Serial No. 251,086. 21 Claims. (Cl. 263—33.)



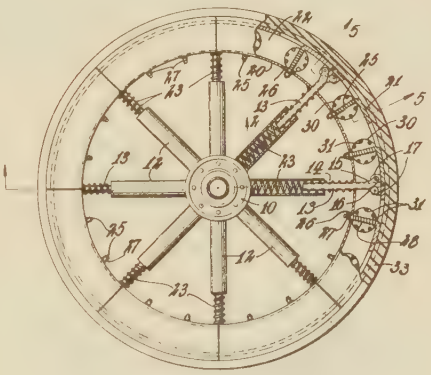
1. A furnace, means whereby the furnace may be bodily moved to cause a back and forth motion of liquid within the furnace having a relatively flat surface portion, a floor within the furnace over which the liquid is adapted to flow, and said floor being shaped to provide an abruptly inclined surface portion against which the liquid is adapted to flow to thereby agitate and mix the liquid as the body of liquid moves in one direction, and said floor being shaped to provide a further relatively flat surface portion extending from the level of the upper edge of said inclined surface portion adapted to assist in the agitation of the liquid.

1,416,407. SPRING CLICK FOR TIMEPIECES. ERNEST H. HORN, Waterbury, Conn., assignor to Waterbury Clock Co., Waterbury, Conn., a Corporation. Filed Sept. 29, 1921. Serial No. 504,069. 6 Claims. (Cl. 58—86.)



1. As a new article of manufacture, a combined, one-piece click and click-spring for time pieces, bent between its ends to form a click-arm and spring-arm which stand at an angle with respect to each other; in combination with means for rigidly mounting the said part by the outer end of its spring-arm.

1,416,408. RESILIENT WHEEL. LOUIS HORSCHETZKY, New York, N. Y. Filed Oct. 3, 1921. Serial No. 504,969. 6 Claims. (Cl. 152—48.)

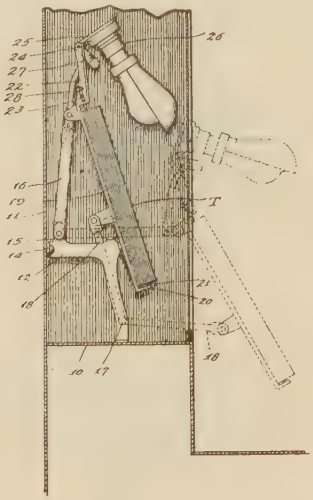


6. In a wheel, outer and inner rim members, the inner rim being continuous and the outer rim being divided circumferentially into the series of sections, a pair of bolts fixed to each of said sections and projecting radially inwardly through the inner rim, and spring devices grouped around said bolts and bearing between the inner and outer rims, said spring devices comprising a number of circular springs grouped in spherical formation, each of said springs having a number of loops formed therein, the number of loops in each spring corresponding to the number of sections in the outer rim.

1,416,409. STORAGE CABINET. JOSEPH A. MINER, Indianapolis, Ind., assignor to American Metal Furniture Company, Indianapolis, Ind., a Corporation of Indiana. Filed July 5, 1921. Serial No. 482,314. 2 Claims. (Cl. 211—16.)

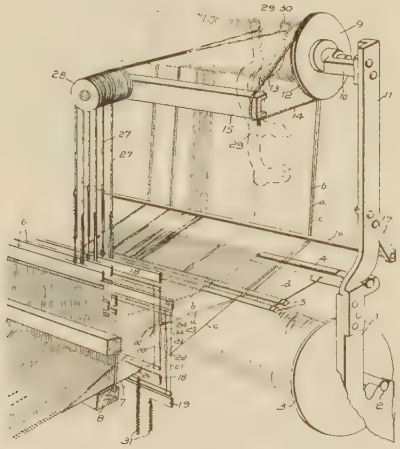
2. As an article of manufacture, a tray support comprising L-shaped main brackets providing partition engaging ends at right angles to each other, pair of swinging distance frames pivoted to said brackets, one pivoted to the vertical legs of the brackets and the other pivoted

to the horizontal legs of the brackets, and a tray frame pivoted to the ends of said distance brackets, a lamp



socket pivoted to the tray frame, and a link connecting said lamp socket and one of the distance frames.

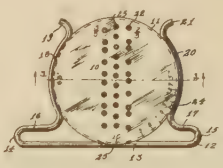
1,416,410. LENO OR CROSS-WEAVING LOOMS. FREDERICK J. NORRIS, Fall River, Mass., assignor to Draper Corporation, Hopedale, Mass., a Corporation of Maine. Filed Nov. 3, 1921. Serial No. 512,605. 8 Claims. (Cl. 139—84.)



1. In a cross-weaving loom, the combination of two doup heddles each having an eye for a doup thread, two ground heedles each controlling a single ground thread, a floating eye through which both doup threads pass, and means for operating one of the doup heddles and one of the ground heddles as a pair and the other doup heddle and other ground heddle as another pair to form the shed with the ground thread successively placed in the same shed plane and for crossing the floating eye and both doup threads first to one and then the other side of the ground thread.

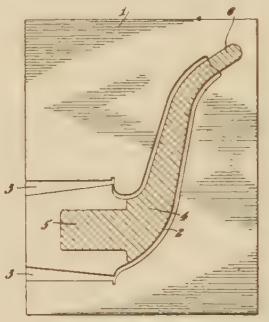
1,416,411. LETTERING INSTRUMENT. OSCAR A. OLSON, Ames, Iowa. Filed Sept. 7, 1921. Serial No. 499,935. 3 Claims. (Cl. 33—41.)

1. A lettering instrument comprising a frame having a straight side and spaced oppositely arranged resilient members, and a disc rotatably mounted between said re-



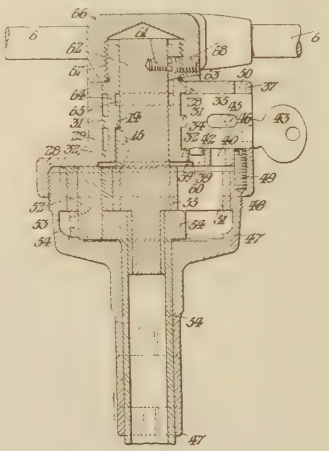
silient members, said disc being provided with a series of symmetrically arranged openings.

1,416,412. DIE-CASTING PROCESS. CHARLES PACK, New York, N. Y., assignor to Doehler Die Casting Company, Brooklyn, N. Y., a Corporation of New York. Filed Feb. 25, 1921. Serial No. 447,656. 6 Claims. (Cl. 22—200.)



2. A process for making die-castings, comprising, forming the casting about a mold unit of material having a lower fusing point than the material from which the casting is made and a surface coating of material having a higher fusing point than the material from which the casting is made, and melting the mold unit to separate it, together with its coating, from the casting.

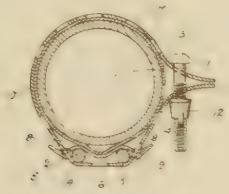
1,416,413. STEERING WHEEL. ARTHUR E. PAIGE, Philadelphia, Pa. Filed Aug. 23, 1921. Serial No. 494,606. 15 Claims. (Cl. 70—129.)



13. The combination with a rotary steering shaft of an automotive vehicle, having steering wheel engaging

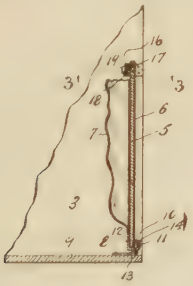
means; of means arranged to prevent axial movement of said shaft, including a stationary bearing, in which it is journaled; a steering wheel hub member arranged to reciprocate axially on said shaft, to and from operative and inoperative relation with said wheel engaging means of said shaft; and means arranged to lock said hub member in both operative and inoperative relation with said shaft, including a lock body, arranged to reciprocate bodily in said bearing, toward and away from said shaft, to engage and disengage said hub member.

1,416,414. CANOPY-FRAME BRACKET. CLINTON B. PIKE, Birmingham, Ala., assignor, by mesne assignments, to James Thompson & Co., New York, N. Y., a Copartnership composed of Julius Buchman and Edwin Buchman. Filed Aug. 8, 1921. Serial No. 490,476. 5 Claims. (Cl. 5—14.)



1. A canopy frame support, comprising a rigid metal plate grooved to receive a canopy frame loop and having lateral slots, and a flexible strip woven through the slots and adapted to pass over the loop and about a support element to clamp both the canopy frame loop and the plate to the support element, substantially as described.

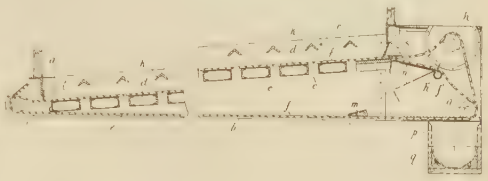
1,416,415. WARDROBE TRUNK. JOSEPH RAUCHBACH, Newark, N. J. Filed July 13, 1921. Serial No. 484,300. 2 Claims. (Cl. 190—13.)



1. In a wardrobe trunk, the combination with an open body section thereof, of a detachable shoe-carrier element, retaining members fixed to the outer marginal portions of the bottom end wall of said body sections within the open front portion of the latter, said retaining members having upwardly projecting lugs provided with openings, hook-portions fixed to the lower end of said shoe-carrier element detachably engageable in the openings of said lugs, and means cooperating with the upper end of said shoe-carrier element for holding the same substantially upright within the open front portion of said body section.

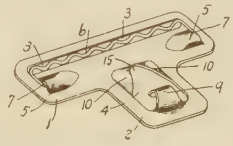
1,416,416. MEANS FOR ABSTRACTING PULVERULENT MATERIAL FROM BULK. ARNOLD REDLER, Flour Mills, Sharpness, England. Filed July 8, 1920. Serial No. 394,716. 3 Claims. (Cl. 214—17.)

1. In means for abstracting pulverulent material from bulk in a bin a chain disposed over the bottom of the bin adapted to be moved, said bottom being provided with a plurality of apertures, a receptacle below the bin having



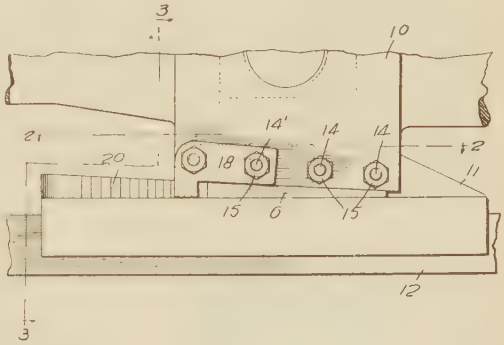
increasing dimensions towards one end and a discharge orifice at said end.

1,416,417. BUCKLE AND BAND HOOK. JAMES B. ROBINSON, Chattanooga, Tenn. Filed July 21, 1920. Serial No. 398,027. 1 Claim. (Cl. 24—192.)



In a buckle and band hook of the class described, a body part, a slot at one end thereof, movable means and arched bearings for journaling the same, operating in connection with said slot, a second slot in said body part, the edge of said slot partly surrounded by holding means for engaging the link of a trace, arched wings at the opposite end of said slot and at each side thereof, for retaining the trace link in alignment, all the corners of said body part and the corners of the slots and of all the parts connected therewith, having rounded ends and corners.

1,416,418. CROSSHEAD ADJUSTER. THEODORE ROGATCHOFF, Baltimore, Md. Filed May 28, 1921. Serial No. 473,465. 3 Claims. (Cl. 74—84.)

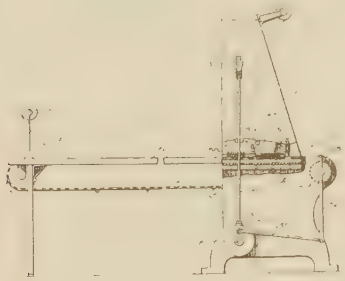


1. A cross head adjuster comprising in combination with a shoe and a cross head, a wedge member having substantially parallel legs with sides inclined to the same plane, a rack formed along the edge of one of said legs, and a keeper having a face complementary to and engaging said rack.

1,416,419. BINDING-WIRE-CUTTING MECHANISM FOR WIRE-BOUND-BOX-BLANK MACHINES AND THE LIKE. JOHN SHELLENBERGER, Rome, Ga., assignor to Sealed Case Company, a Corporation of New York. Filed Feb. 20, 1919, Serial No. 278,187. Renewed Aug. 13, 1921. Serial No. 403,298. 24 Claims. (Cl. 1—8.2.)

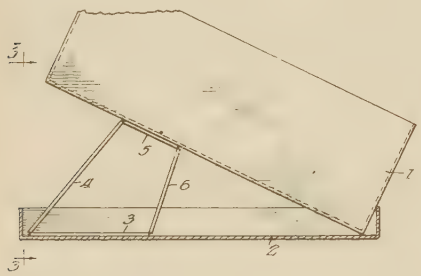
1. In a wire bound box blank machine, a periodically operating stapler having a reciprocating part moving

therewith provided with a rack, feed mechanism for advancing sheets of lumber and binding wires through the stapler for the production of wire bound blanks, normally-inactive cutters for severing the binding wires behind each stapled blank, normally inactive means for actuating said cutters to perform a wire severing operation and



then returning the same to inactive position, said means including a toothed sector adapted to mesh with and be operated by said rack but normally out of operative position with respect thereto, and automatic means for temporarily establishing operative relation between said sector and rack.

1,416,420. COVER FOR BOXES. HANS SCHWENNEKE, Chicago, Ill., assignor to Globe Paper Box Company, Chicago, Ill. Filed Feb. 8, 1921. Serial No. 443,449. 14 Claims. (Cl. 206—44.)

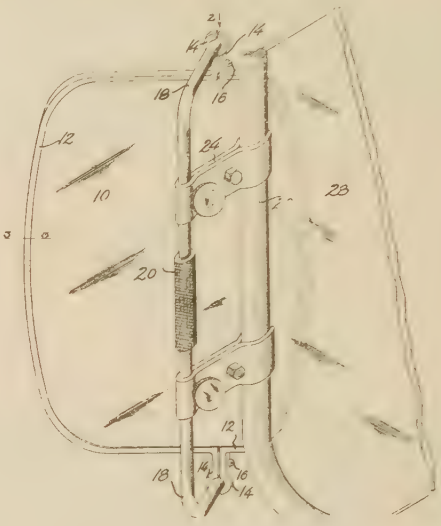


1. In a cover for boxes, a dually hinged collapsible member thereof adapted to be adjusted to form a support for one end of the box.

1,416,421. SPAT OR LEGGING. CHARLES F. O. SEIBERT, St. Louis, Mo. Filed Jan. 23, 1922. Serial No. 531,230. 1 Claim. (Cl. 36—2.)

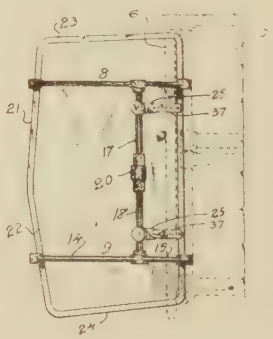
A combined spat and legging, consisting of integral over-gaiter and leg-sections having overlapping closing-flaps, and a long continuation of one of the said closing-flaps; one end of said long continuation being fixed to the outer closing-flap of the over-gaiter section, and constructed and arranged to be passed therefrom downwardly and under the arch of the foot, and thence upwardly and across the instep, and then spirally wound around overlapping flaps and body of said leg-section, in separated convolutions; and fastening-means at the free (or upper) end of said long continuation.

1,416,422. WING FOR WINDSHIELDS. WILLIAM B. SEWELL, Denver, Colo., assignor, by mesne assignments, to The Sewell-Hunt Manufacturing Company, Incorporated, Denver, Colo., a Corporation of Colorado. Filed Nov. 3, 1919. Serial No. 335,245. 2 Claims. (Cl. 296—84.)



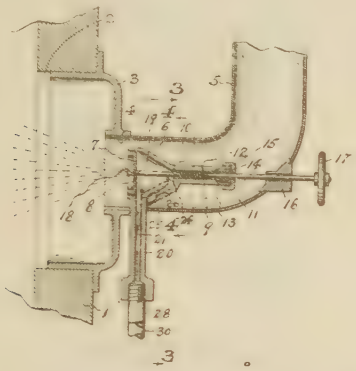
2. A windshield comprising a transparent plate, a pair of rim members bound about the edges of said plate to retain the same, offset cooperating clamps carried by the opposite ends of said rim members, means to bind said clamps together, a two part supporting rod device having its ends held in said clamps, and a turnbuckle joining the two parts of said rod.

1,416,423. WING FOR WINDSHIELDS. WILLIAM B. SEWELL, Denver, Colo., assignor, by mesne assignments, to The Sewell-Hunt Manufacturing Company, Incorporated, Denver, Colo., a Corporation of Colorado. Filed Sept. 20, 1920. Serial No. 411,611. 8 Claims. (Cl. 296—84.)



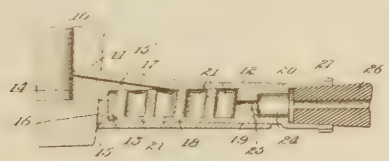
1. A windshield wing comprising a shield member having two opposite upright sides converging towards their ends, two brackets engaging the opposite upright side edges of the member, and movable vertically thereon for tightening and releasing purposes, a rod connecting the two brackets and adjustable to effect the aforesaid movement of the brackets, and means for supporting the rod.

1,416,424. OIL BURNER. JAMES M. SEYMOUR, Jr., Newark, N. J. Filed Dec. 24, 1919. Serial No. 347,075. 6 Claims. (Cl. 158—73.)



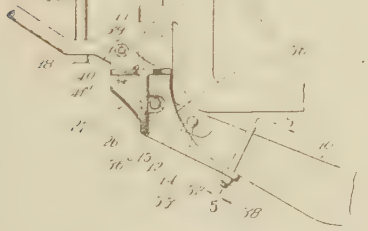
1. An oil burner provided with a valve controlled spray discharge orifice, a rearwardly diminished conical chamber in back of said discharge orifice, an oil intake means entering said chamber tangent to its largest circumference to cause the oil to gyrate therein in the rear of and about said discharge orifice, said chamber having an outlet at its rear small end, and an oil outlet means communicating with said chamber outlet.

1,416,425. TOBACCO PIPE. LOUIS SUELMEYER, St. Louis, Mo., assignor to Elsie Keller, St. Louis, Mo. Filed July 7, 1920. Serial No. 394,500. 8 Claims. (Cl. 131—12.)



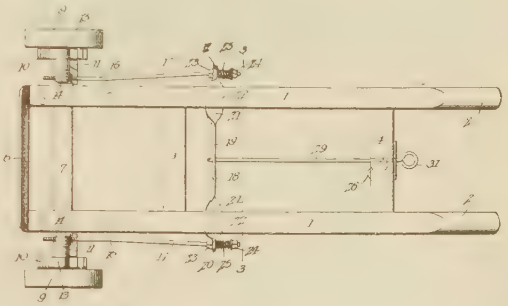
5. A stem member for pipes comprising a chambered casing having a rib projecting upwardly and forwardly from its body and terminating in an offset nipple, said nipple and rib having a smoke passage communicating with the chamber of said casing; and a bowl-engaging shoulder on said casing adjacent said nipple, said shoulder having its face hollowed out to give a relative sharp bowl engaging edge.

1,416,426. AUTOMOBILE BUMPER. FRANK TOMASEK, Chicago, Ill. Filed Nov. 14, 1921. Serial No. 514,896. 6 Claims. (Cl. 293—55.)



4. In an automobile bumper, the combination with a transverse frame member and the fender brackets of an automobile, of an impact member, supporting brackets for said impact member adapted to be clamped to and bear against the lower and vertical surfaces of said frame member, and means for clamping said supporting brackets to said frame member comprising L-bolts adapted to engage with said fender brackets and exert vertical and lateral force when tightened, to clamp said supporting brackets in their operative position.

1,416,427. HAND TRUCK. HENRY VOLKMAN, Manchester, N. H. Filed Apr. 30, 1921. Serial No. 465,807. 4 Claims. (Cl. 280—56.)



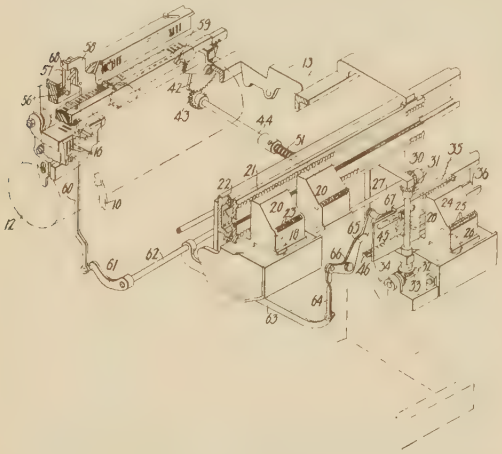
1. A truck comprising side bars, a cross bar interposed between and fixed with respect to the rear portions of said side bars, a keeper plate carried at the underside of said cross bar and disposed at an angle to the longitudinal center of the truck and having an upright slot and also having a slot communicating with and extending from the first-named slot in the direction of the length of the plate, an axle carried by said side bars and having spindles, ground wheels mounted on the said spindles and having ratchet wheels at their inner sides, standards carried by the axle at the inner sides of the ratchet wheels, rock shafts journaled in said standards and having pawls on their outer portions and pendent cranks on their inner portions, longitudinal rods connected to and extending rearwardly from said cranks and having abutments spaced from their rear end, a resilient cross bar having a vertically disposed intermediate portion, horizontally disposed portions at the ends of said intermediate portion and arranged under and pivotally connected to the side bars and vertically disposed end portions with apertures receiving the longitudinal rods in rear of the abutments thereon, coiled springs mounted on the longitudinal rods in rear of the resilient bar and interposed between the bar and rear abutments on the rods, and a longitudinal handle rod connected to and extending rearwardly from the intermediate portion of the resilient bar and through the slotted keeper plate and having enlargement disposed in rear of said plate.

1,416,428. COMBINED TYPEWRITING AND COMPUTING MACHINE. JOHN WALDHEIM, Elizabeth, N. J., assignor to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed May 27, 1919. Serial No. 300,067. 26 Claims. (Cl. 235—59.)

1. In a combined typewriting and computing machine, the combination of a letter-feeding carriage, a computer carriage adapted to be connected to travel with said letter-feeding carriage through a computing zone, means to release said computer carriage when the letter-feeding carriage passes out of the computing zone, and means actuable by said letter-feeding carriage to effect a reconnection of said computer carriage with the letter-feeding carriage when the latter is moved back into the computing zone.

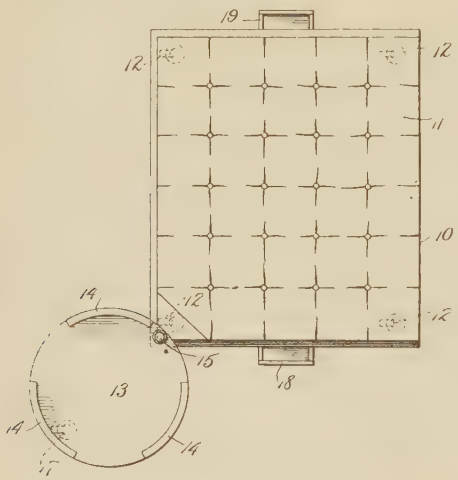
21. In a combined typewriting and computing machine, in combination, a letter-feeding carriage, a cross-computer unit having an element to be connected to travel with said carriage through a computing zone and a co-operative element, means to release the traveling cross-computing

element when the carriage passes out of the computing zone, and means actuable by the letter-feeding carriage



whereby movement of the latter back into the computing zone will cause the traveling cross-computing element to be reconnected with the carriage.

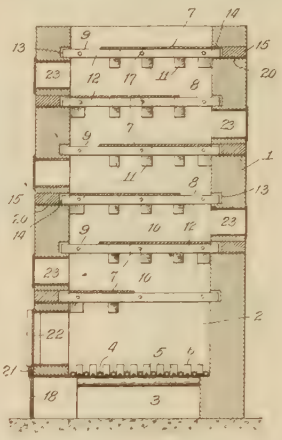
1,416,429. FLOOR-SCRUBBING BOARD. CHARLES P. WILLIAMS, Cleveland, Ohio. Filed Jan. 8, 1921. Serial No. 435,904. 1 Claim. (Cl. 155—167.)



As an improved article of manufacture, a floor scrubbing device comprising a single low-lying platform mounted on trucks having a soap box on the side below the top surface of the platform, and an extension pail holder pivoted at one corner of the platform and adapted to swing around said corner, said pail holder having a flat bottom, flanged sides, and a roller on the under side thereof.

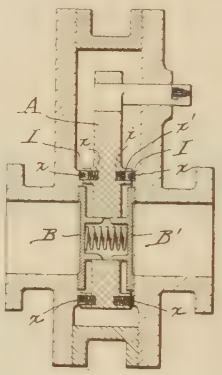
1,416,430. MULTIPLE-SHELF INCINERATOR. CHARLES HENRY SPENCER WILLIAMSON, Chicago, Ill. Filed Aug. 17, 1918. Serial No. 250,294. 3 Claims. (Cl. 110—17.)

1. A refuse incinerator comprising a vertical stack of substantially uniform horizontal cross section throughout, a fire box at the lower end of said stack, and a series of overlapping horizontal shelves disposed alternately at opposite sides of the stack, each shelf being close to one side of the stack and terminating short of the opposite side thereof so as to provide a tortuous passage for the heated gases from the fire box over and about the refuse on the several shelves, said stack having a relative large opening directly above the topmost shelf to permit the placing of the refuse thereon, said stack having openings



adjacent each shelf whereby access may be had to the stack for raking the refuse from one shelf onto the next lower shelf.

1,416,431. VALVE. WYLIE GEMMEL WILSON, New York, N. Y., assignor to Sliding Valves, Incorporated, a Corporation of Delaware. Filed June 25, 1917. Serial No. 176,755. 3 Claims. (Cl. 251—18.)



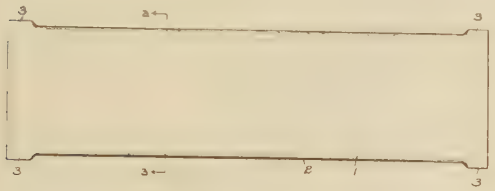
1. A valve of the character described for controlling the flow of liquid and fluid corrosive substances, embodying two cooperating surfaces, at least one of which surfaces carries a solid body of graphite adapted to be swept over, or swept by, the other surface, when relative movement is imparted to said surfaces, for the purpose of compensating for irregularities between said surfaces and to lubricate said surfaces and render them non-corrosive and anti-sticking, and resilient means for maintaining the graphite body in engagement with the surface to be treated.

2. In a valve of the class described, a valve chamber, an inlet and outlet to said chamber, cooperating sealing surfaces for controlling the flow of material through the outlet, a substantially sealed body of lubricant so positioned within the chamber that during the operation of the valve there is a relative movement between said body and one of said surfaces whereby said surface is coated with said lubricant, said body of lubricant being held so that it is out of engagement with the actual sealing portions of said surfaces when the valve is in open or closed position, separate pockets for holding the lubricating material, and resilient means for cooperating with the pockets for maintaining the lubricant in proper position to be engaged by one of the sealing surfaces.

3. In combination with a slide valve having opposed sealing faces, a body of graphite carried by the operative element which also supports one of said valve faces and

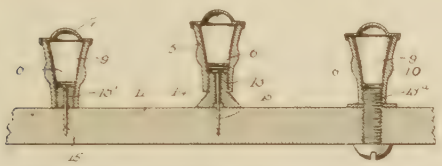
adapted, when said element is moved, to sweep over the face of the opposed valve face for the purpose of depositing a film of graphite thereon, and a resilient means carried by said element for maintaining said body of graphite in positive engagement with the face it sweeps over.

1,416,432. BRICK PALLET. LEONARD G. WOODS, Pittsburgh, Pa. Filed Apr. 22, 1920. Serial No. 375,734. 1 Claim. (Cl. 34—17.)



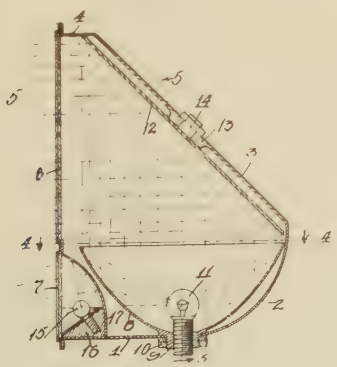
A pallet for supporting bricks before and during the burning thereof, consisting of a sheet metal plate adapted to receive and support the green bricks, the plate being thinly covered with a closely adherent enamel, whereby to prevent sticking of the brick to the plate and reaction of the metal with the constituents of the brick.

1,416,433. SCREW HOLDING ANCHOR. CHARLES N. ACKERMAN, Chicago, Ill., assignor to Ackerman-Johnson Co., a Corporation of Illinois. Filed Jan. 15, 1921. Serial No. 437,493. 2 Claims. (Cl. 72—105.)



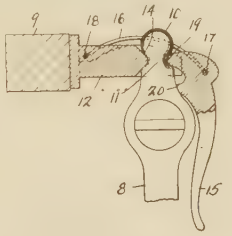
1. A screw holding anchor adapted to be embedded in moldable material, comprising a wall insert having a substantially cylindrical shaped internally threaded lower portion and an inverted bell shaped hollow upper portion, an externally projecting lug on the insert, a cap completely closing off the said upper portion of the insert, a conoidal headed supporting member having a body portion threading into the said cylindrical internally threaded lower portion of the insert, and means for holding the device in position while moldable material is being poured and permitted to harden.

1,416,434. HEADLIGHT. CHARLES H. ALLEN, Chicago, Ill. Filed Oct. 18, 1920. Serial No. 417,648. 1 Claim. (Cl. 240—41.)



In a headlight, a casing having a lower base portion, a parabolic reflector secured in said base portion, an incandescent light secured centrally of said reflector and extending upwardly, a reflector secured to the back of said casing at an angle to the axis of the parabolic reflector, a supporting member secured on said base in front of the parabolic reflector, a pilot light secured to said supporting member and inclined forwardly with respect to the base, a lens holder in the front of said casing, an upper main lens secured in said holder, a lower pilot light lens secured in said holder, and a curved reflector extending from the top of said pilot lens to the said base and secured to the rear portion of said pilot light supporting member.

1,416,435. FASTENING DEVICE FOR VEHICLE TOPS. CHARLES R. ALLEN, Ashtabula, Ohio. Filed Mar. 15, 1920. Serial No. 365,796. 4 Claims. (Cl. 287—23.)

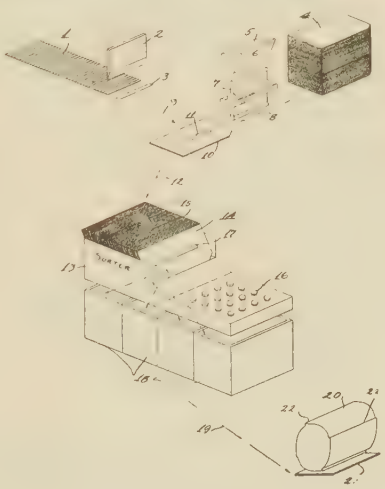


1. In a device for securing the forward portion of a vehicle top to the body of such vehicle, the combination of a post on said body terminating in a stud; a bracket carried by said top portion and formed to engage said stud on one side; a lever adapted to engage said stud on the opposite side; and a link connecting said lever with said bracket, substantially as described.

1,416,436. ELECTRICAL HEATING ELEMENT. PERCY A. E. ARMSTRONG, Loudonville, N. Y. Filed May 1, 1919, Serial No. 293,927. Renewed Oct. 1, 1921. Serial No. 504,676. 3 Claims. (Cl. 219—76.)

1. An electrical heating element containing over 4% of chromium, carbon over .1%, and the principal part of the remainder iron.

1,416,437. METHOD OF HANDLING ACCOUNTS. CLIFTON F. BALCH, Evanston, Ill. Filed June 23, 1921. Serial No. 479,859. 6 Claims. (Cl. 281—1.)



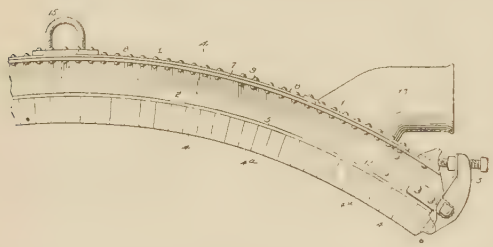
1. A process of arranging information which consists in listing the information upon a sheet, separating the

items of information by cutting the sheet into slips, pasting the slips on cards of a shape and size suitable for co-operating with a sorting machine, running the cards through a sorting machine, operating the sorting machine by keyboard, so that items of the particular sort of information desired are brought together, and entering in books the collated information.

1,416,438. FURNACE. DONALD S. BARROWS, Rochester, N. Y. Filed July 29, 1919. Serial No. 313,986. 9 Claims. (Cl. 263—46.)

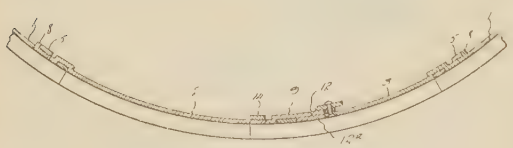
1. A furnace bung comprising a metallic member and a lining of refractory material, and means interposed between said lining and the said member for protecting the latter.

1,416,439. WIND BUNG FOR MELTING FURNACES. DONALD S. BARROWS, Rochester, N. Y. Filed Mar. 17, 1920. Serial No. 366,568. 3 Claims. (Cl. 263—46.)



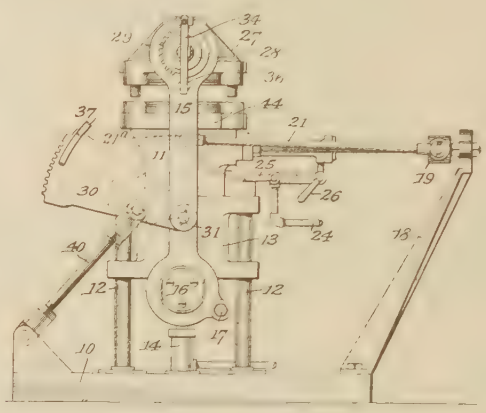
1. In a furnace bung, the combination with a plurality of flanged members, of means for connecting said members to form a chamber therebetween, a lining of fire-resisting material engaging said flanged members, means for holding said lining in position, means for admitting air to said chamber, and a plurality of staggered slots in said lining member to permit the escape of air from said chamber.

1,416,440. DEMOUNTABLE RIM. MARYAN B. BARSZCZEWSKI, Cleveland, Ohio. Filed Mar. 19, 1921. Serial No. 453,765. 2 Claims. (Cl. 301—32.)



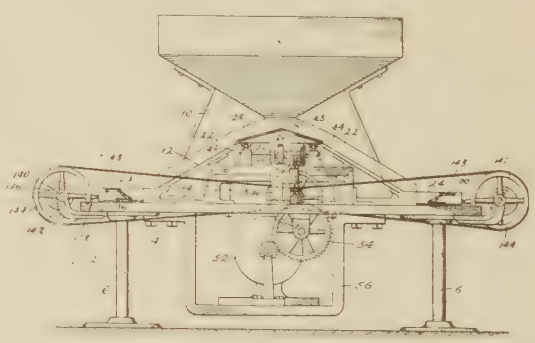
1. A demountable rim comprising a main section having its ends separated, two intermediate sections interchangeable with either one of said ends of the main section, each end of said main section being provided with a cross bar secured to the rim at its ends only, one end of each intermediate section being provided with two recesses, one of said recesses arranged for engaging said bar, while the other recess engages the end of the rim of the main section.

1,416,441. PRESS. GEORGE W. BEADLE, Stamford, Conn., assignor to Columbia Graphophone Manufacturing Company, Bridgeport, Conn., a Corporation of Delaware. Filed Dec. 10, 1919. Serial No. 343,739. 16 Claims. (Cl. 18—5.3.)



1. A moulding press having a pair of upper and lower heads relatively movable laterally and vertically, in combination with means for rotating the upper head after the lateral movement has begun and adapted to be rendered operative by said lateral movement.

1,416,442. STAMPING MACHINE. WILLIAM E. BISHOP Kansas City, Kans. Filed Oct. 27, 1919. Serial No. 333,608. 8 Claims. (Cl. 101—44.)

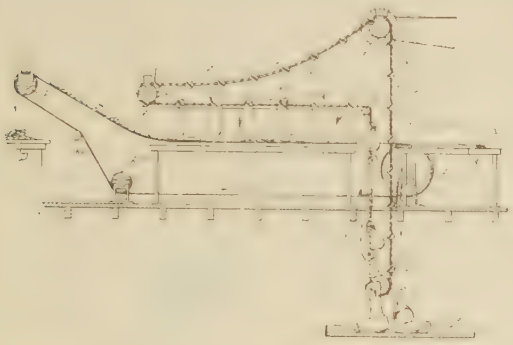


1. In a machine of the character described, a receptacle for articles to be stamped, mechanism for stamping the articles, inclined means for conducting the articles from the receptacle to said stamping mechanism and having openings in their bottom portions, a reciprocatory agitator underlying the open portions of the bottom to prevent the articles from clogging, and means for presenting the articles to the stamping mechanism.

1,416,443. MEAT-HANDLING APPARATUS. HARRY W. BROWN, Buffalo, N. Y. Filed Mar. 3, 1922. Serial No. 540,825. 12 Claims. (Cl. 17—30.)

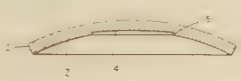
1. An apparatus for use in the cutting up of carcasses, including a preliminary cutting table, a traveling conveyor having a substantially horizontal run which extends into proximity to said table and which is adapted

to receive parts of carcass from said table, final cutting tables placed at opposite sides of the horizontal run of



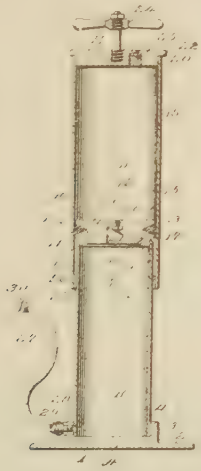
said conveyor, and conveyors having runs arranged adjacent to said final cutting tables and adapted to receive the finished parts and convey the same to their destinations.

1,416,444. PROCESS OF MAKING BIFOCAL LENSES. LUCIAN W. BUGBEE, Indianapolis, Ind., assignor, by mesne assignments, to Twinsight Optical Company, Indianapolis, Ind. Filed June 16, 1919. Serial No. 304,690. 6 Claims. (Cl. 51—278.)



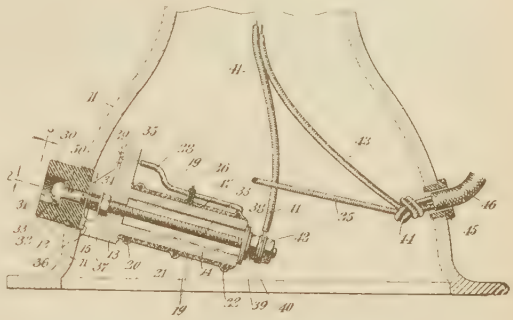
1. The process of making onepiece bifocal lenses, which process includes the formation upon one face of glass of two surfaces substantially merging, and corresponding substantially with the distance and reading surfaces of a bifocal lens, and thereafter abrading the reading surface so as to make it a depression surrounded by a shoulder dividing the two surfaces.

1,416,445. PUMP. GEORGE BURD and CHARLES BURD, Detroit, Mich. Filed Oct. 25, 1920. Serial No. 419,461. 4 Claims. (Cl. 230—27.)



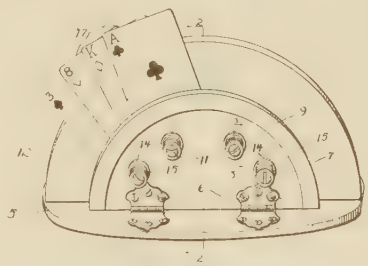
1. In a pump of the character described, a cylinder, a cylinder head therefor, comprising a ring and a head member, the head member adjustably carried by the ring, the adjacent edges of the ring and head member separated to form a V-shaped opening, a packing ring carried by the opening, and the packing ring adapted to be forced outwardly by the adjustment of the cylinder ring and head member.

1,416,446. ELECTRICAL CONTROLLING DEVICE. DAWSON JABEZ BURNS, Bronxville, N. Y., assignor to Ward Leonard Electric Company, a Corporation of New York. Filed June 14, 1919. Serial No. 304,259. 19 Claims. (Cl. 219—55.)



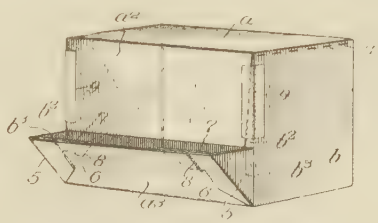
1. In combination, a tubular resistance unit with end leads and an intermediate tap, an insulating support at one end thereof, with said end leads and tap snubbed around portions thereof to form contact terminals and a pivoted switch arm to engage said terminals.

1,416,447. HOLDER FOR PLAYING CARDS. RICHARD C. CASTLES, Chicago, Ill. Filed Apr. 11, 1921. Serial No. 460,453. 4 Claims. (Cl. 46—55.)



1. In a device of the class described, the combination with a base adapted to rest on a horizontal support, of a clamping member longitudinally disposed thereon and hinged thereto, another clamping member similarly disposed to said base and parallel to the rear face of the first named member, and means carried by the hinged member and engaging the other member for automatically actuating the latter bodily towards the other member.

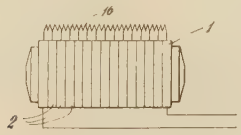
1,416,448. SHIPPING AND DISPENSING BOX. MARVIN E. CHAPIN, Chicago, Ill., assignor to Chicago Carton Company, Chicago, Ill., a Corporation. Filed Mar. 17, 1919. Serial No. 283,099. 6 Claims. (Cl. 229—17.)



3. A folding paper box comprising connected side and end walls, and a side flap and a pair of separate end flaps permanently hinged respectively to said walls and adapted to fold inwardly, when the box is closed, substantially at right angles to said walls, said flaps having means whereby

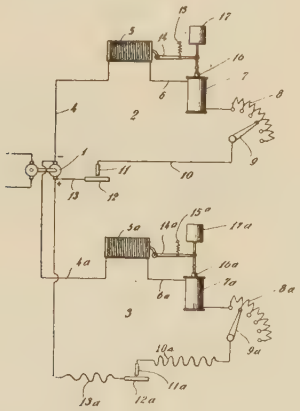
their edges may be connected to hold the end flaps extended and the side flap in inclined position and thereby form a projecting dispensing hopper, substantially as described.

1,416,449. ELECTRIC-ARC WELDING. ALEXANDER CHURCHWARD, New York, N. Y., assignor to Wilson Welder & Metals Company, Inc., a Corporation of New York. Filed Feb. 18, 1920. Serial No. 359,495. 8 Claims. (Cl. 219—15.)



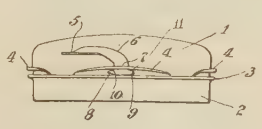
1. An electric arc welding apparatus comprising, a pressure variable compensating resistance comprising a plurality of carbon resistor elements, a bridging resistance electrically connecting two of said resistor elements, the resistance between the two carbon resistor elements being normally less than said bridging resistance.

1,416,450. ELECTRIC-WELDING METHOD AND APPARATUS. ALEXANDER CHURCHWARD, New York, N. Y., assignor to Wilson Welder & Metals Company, Inc., a Corporation of New York. Filed June 26, 1920. Serial No. 391,900. 6 Claims. (Cl. 219—15.)



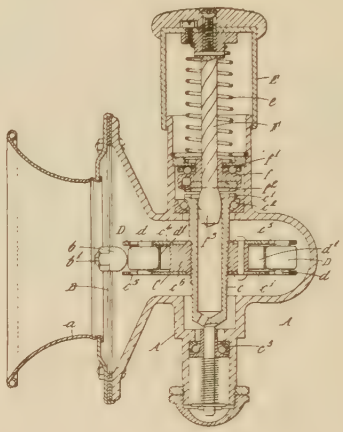
1. In a welding system, in combination, welding circuits in multiple, electro responsive means in each of said circuits to automatically vary the resistance therein to compensate for variations in the current flowing through the arc, and other means in each of said circuits to maintain a constant operating normal resistance irrespective of the resistance of the electrode leads.

1,416,451. BOX. BENNO COHN, New York, N. Y., assignor to Ferdinand Gutmann & Co., New York, N. Y., a Corporation of New York. Filed Dec. 8, 1921. Serial No. 520,927. 1 Claim. (Cl. 220—43.)



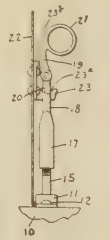
A box comprising a body having an annular flange thereon near the top, a cover provided with a slotted flange near its lower end, said cover being a friction fit for the body, a lever in the slot comprising a finger piece adapted to lie above the slot, a head in angular relation to the finger piece, cams oppositely extending from the head and adapted to lie between the flanges on the cover and body the notches formed by the junctions of the cams and head adapted to fulcrum with the slot end and the cams adapted to roll along the opposed flanges.

1,416,452. DIAPHRAGM WARNING HORN. LEONARD EUGENE COWEY, Kew Gardens, England. Filed Dec. 6, 1920. Serial No. 428,669. 2 Claims. (Cl. 116—143.)



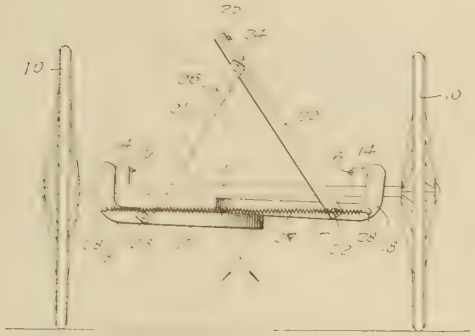
1. In a sound warning device of the diaphragm and rotating striker type, a rotary striker wheel comprising a pair of spaced plates having formed therein concentric rings of short radial slots facing each other and a series of relatively thick discs each having a short projecting axle extending into opposite radial slots in the said plates, and means for rotating said wheel and causing the aforesaid discs to act upon the diaphragm successively.

1,416,453. HOOD LATCH FOR AUTOMOBILES. EMANUEL L. CRUM, Indianapolis, Ind. Filed Oct. 29, 1920. Serial No. 420,510. 4 Claims. (Cl. 292—63.)



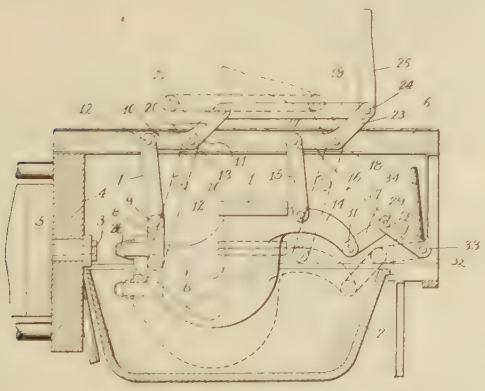
1. In a hood latch for vehicles, the combination with a hood having a hook thereon, of a latching means anchored to said vehicle, including a threaded bolt secured at one end thereof, a member arranged to be rotatably adjustable vertically thereof, a lever pivoted at the end of said member, a head on one end of said lever for engaging said hook, and a handle on the other end of said lever at a relatively greater distance from the fulcrum point than said head, whereby upon the proper vertical adjustment thereof said head may engage said hook and cause it to be forced downwardly and locked by the movement of said lever about said fulcrum point.

1,416,454. RUNNER FOR BABY CARRIAGES. JOHN E. DOUGLAS, Ellensburg, Wash. Filed Apr. 25, 1921. Serial No. 464,117. 2 Claims. (Cl. 280—10.)



1. The combination with a wheeled vehicle of bars extending longitudinally of the vehicle between the wheels, runners pivoted to the extremities of the bars and appropriately formed to swing outwardly and downwardly to occupy positions beneath the wheels, arms pivoted to the runners and pivoted together adapted, when extended, to swing the runners into operative position and to limit the movement, and a spring connected with the runners adapted, when the arms are released, to draw the runners toward each other into inoperative position between the wheels.

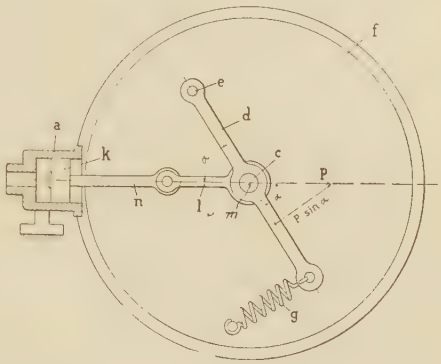
1,416,455. DIE-CASTING APPARATUS. CLARENCE H. DUCKWORTH, Brooklyn, N. Y., assignor to Doehler Die Casting Company, Brooklyn, N. Y., a Corporation of New York. Filed Mar. 19, 1921. Serial No. 453,565. 5 Claims. (Cl. 22—69.)



1. In a device of the character described, in combination, a ladle, means for moving said ladle vertically, and means for moving said ladle horizontally, said first-mentioned means constantly maintaining said ladle in substantially horizontal position.

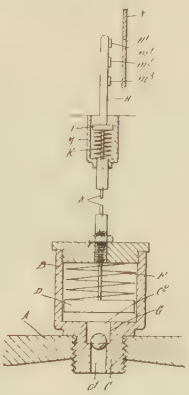
1,416,456. APPARATUS FOR MEASURING AND INDICATING THE TANGENTIAL PRESSURE OR THE OUTPUT OF PISTON ENGINES. DAVID FISCHMANN, Berlin, Germany. Filed July 7, 1921. Serial No. 483,078. 8 Claims. (Cl. 73—187.)

1. An apparatus for measuring and indicating the tangential pressure of piston engines comprising in combination a casing, an organ subjected to the cylinder pressure of the engine, a rotary disk and means for revolving it synchronously with the engine, a lever mounted upon said disk in the direction of a diameter of the same, the direction of the axis of said lever forming with the direction of the axis of said organ an angle which is always approximately equal to the phase angle of the engine crank, a shaft mounted in said casing and a transmission gear for translating the relative displacement



of said lever which takes up the proportional moment of torsion of the engine, with regard to said revolving disk, into a proportional relative displacement of said shaft with regard to the casing.

1,416,457. APPARATUS FOR INDICATING IGNITION FAILURES IN INTERNAL-COMBUSTION ENGINES. STANLEY FISHER, Northfields, Ealing, England. Filed Dec. 19, 1921. Serial No. 523,556. 5 Claims. (Cl. 116—114.)

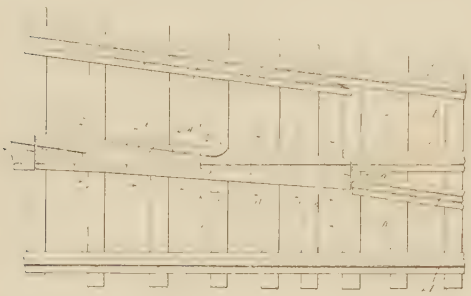


4. An indicating device of the class described comprising a cylindrical housing provided with a normally spring operated piston, regulating means for admitting pressure into said housing to oppose the action of the spring against the said piston, means in said housing for equalizing the pressure on opposite sides of said piston, and a movable indicator connected to said piston.

1,416,458. SWITCH FROG. BENJAMIN P. GILMOUR, West Terre Haute, Ind. Filed Mar. 4, 1922. Serial No. 541,144. 2 Claims. (Cl. 246—458.)

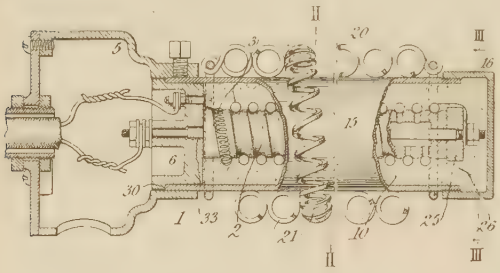
1. A switch frog proportioned to be interposed between spaced ends of interlying main line and siding rails comprising a continuous uninterrupted tread surface corresponding identically with the tread surface of the main line rail sections, a rib coinciding with a siding rail elevated above the main line rail to correspond to the width of a wheel flange, said rib tending to carry the wheel until the flange of the wheel shall engage upon the

top of the section carrying the main line, and a guide rail serving to insure the passage of the wheel from said



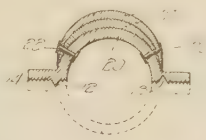
rib across the intervening space represented by the interior line of the main line tread.

1,416,459. ELECTRIC HEATER. EDWARD E. GOLD, New York, N. Y. Filed Jan. 8, 1920. Serial No. 350,118. 2 Claims. (Cl. 219—67.)



1. An electrical heater, comprising an insulating support, a resistance wire thereon, a tubular casing, a filler of electrical insulating heat-conducting material, parts at the end of said casing for supporting said insulating support, and a rod passing through said insulating support and end parts and having means thereon for drawing said parts together.

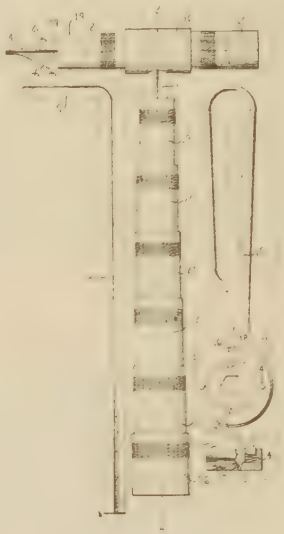
1,416,460. METHOD OF MAKING CAST-IRON PIPE SECTIONS. LORNE A. GRIFFIN, Evanston, Ill., assignor to American Steam Conveyor Corporation, Chicago, Ill., a Corporation of New York. Filed Aug. 9, 1919. Serial No. 316,414. 7 Claims. (Cl. 22—200.)



1. The method which consists in casting a conduit member having a substantially cylindrical outer surface, chilling the same, casting a wear sleeve having a concave surface arranged to fit the outer surface of said conduit member, applying the concave surface of said wear sleeve to the outer cylindrical surface of said conduit member and securing said sleeve to said conduit member.

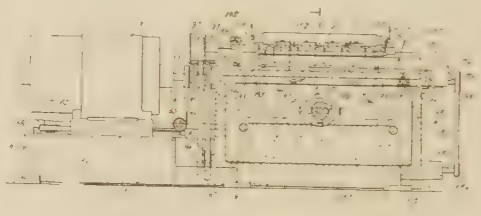
1,416,461. COMBINATION TOOL. ANSELM B. HANCE, New York, N. Y. Filed Oct. 8, 1920. Serial No. 415,669. 12 Claims. (Cl. 7—1.)

1. A combination tool comprising a straight supporting member; a plurality of socket elements adapted to be carried thereby; frictional means at opposite ends of said member for retaining the socket elements thereon, in-



cluding a removable device applied to the supporting member at one end, having means to which other elements may be applied for functional purposes.

1,416,462. GRINDING MACHINE. BENGT M. W. HANSON, Hartford, Conn., assignor to Pratt & Whitney Company, New York, N. Y., a Corporation of New Jersey. Filed July 31, 1918. Serial No. 247,632. 46 Claims. (Cl. 51—95.)

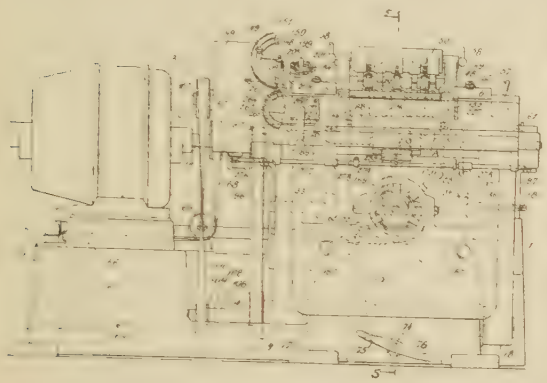


1. In a grinding machine, the combination of a main frame, a grinding wheel mounted on the frame for rotation about a fixed axis, flanges at the edges of the main frame for preventing the escape of water, an auxiliary frame pivoted to the main frame for movement about an axis parallel with the wheel axis and below the level thereof, a work support on the auxiliary frame adapted to hold a work blank in operative relation to the wheel at approximately the level of the wheel axis, and an apron carried by the auxiliary frame and extending downward and rearward over the adjacent flange on the main frame.

1,416,463. GRINDING MACHINE. BENGT M. W. HANSON, Hartford, Conn., assignor to Pratt & Whitney Company, New York, N. Y., a Corporation of New Jersey. Filed July 31, 1918. Serial No. 247,634. 12 Claims. (Cl. 51—95.)

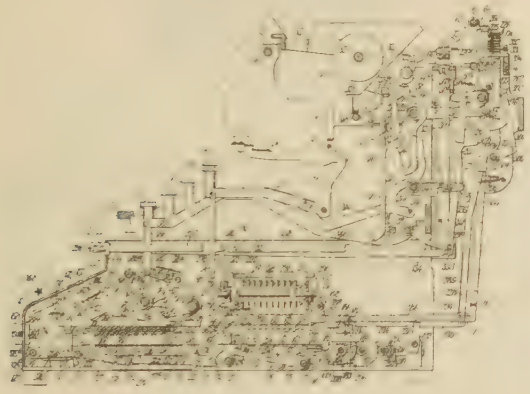
1. In combination, a grinding wheel rotatable about a fixed axis, a table movable toward and from the wheel and provided with longitudinal ways, a headstock and a tailstock longitudinally adjustable along the ways on the table, mechanism carried by the headstock for rotating

a work blank, a longitudinal shaft having splined engagement with the said mechanism, and driving mechanism



for the shaft mounted on the end of the table and fixed against longitudinal movement, the said driving mechanism including change speed gearing.

1,416,464. COMBINED TYPEWRITING AND COMPUTING MACHINE. HANS HANSON, Ivoryton, Conn., assignor to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Aug. 13, 1919. Serial No. 317,178. 138 Claims. (Cl. 235—60.)

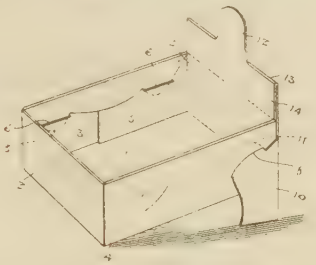


12. In a combined typewriting and computing machine, the combination of a carriage to traverse a computing zone, computing mechanism comprising subtraction-setting mechanism under the control of a pivoted lever, a device on said carriage to actuate said lever, said device being shiftable to and from effective position and a guide to hold said device in effective relation with said pivoted lever while the carriage is traversing the computing zone.

60. In a computing machine, the combination of a plurality of totalizers, each totalizer having a set of computing wheels rotatable about a fixed axis, a single set of controlling elements, said controlling elements being settable additively and subtractively, a set of master drivers, said totalizers being selectively connectable with said master drivers, and means to actuate said controlling elements to actuate said drivers.

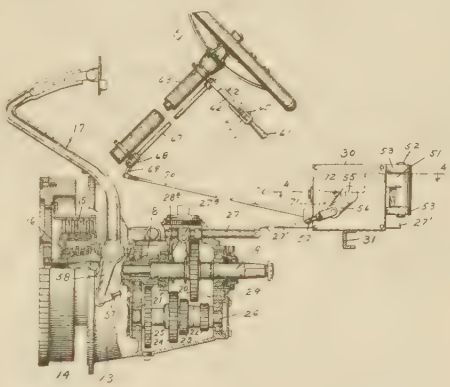
97. In a computing machine, the combination of a totalizer comprising computing elements, a normally effective shutter, means to actuate the computing elements, and means to actuate said shutter to expose the computing elements each time the computing elements are actuated.

1,416,465. DISPLAY BOX. WILLIAM FRANK HARVEY, Toronto, Ontario, Canada. Filed June 7, 1920. Serial No. 387,026. 2 Claims. (Cl. 206—44.)



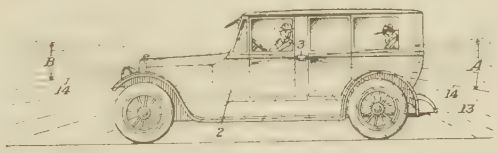
1. A display box, comprising, a body portion having slits in sides, a cover hinged to one of the ends of the body portion and having side flaps bent downwardly and each formed with lugs adapted to enter said slits to hold the cover locked in its closed position, said cover having a transverse crease intermediate of its length and adapted to be turned back to lie against the end of the box and to project above the top of the edge, the creased portion projecting above the edge and the under projecting below the bottom and adapted to be secured in such position.

1,416,466. GEAR-SHIFT-CONTROLLING MECHANISM. FRANK C. HIGGINS, Minneapolis, Minn. Filed May 7, 1921. Serial No. 467,530. 17 Claims. (Cl. 74—58.)



1. The combination with the shift gears of a transmission mechanism, of a controlling mechanism therefor comprising primary and secondary selecting cams, means for setting said primary cam in different selecting positions in advance of the gear shifting action, and means for subsequently causing said secondary cam to follow the position of said primary cam and cause the gear shifting action pre-determined by the setting of said primary cam.

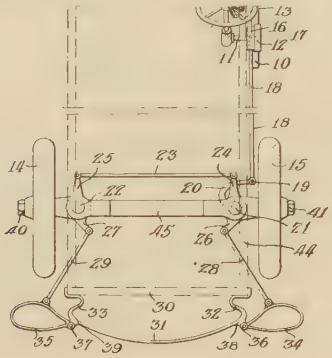
1,416,467. COMBINED LIGHT AND STRUCTURE. JAMES C. HOBBS, Pittsburgh, Pa. Filed Nov. 15, 1920. Serial No. 424,053. 12 Claims. (Cl. 240—7.)



11. An illuminating means for use on the outside of vehicles, comprising a light source projecting high intensity rays directly against a portion of the outside of

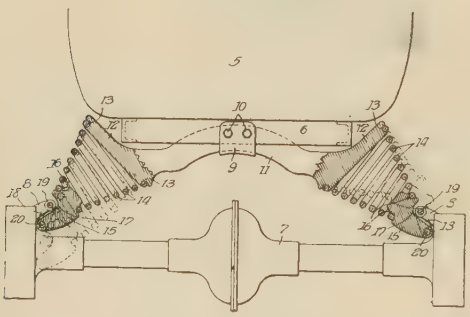
the body of the vehicle to illuminate the same and low intensity rays to indicate the position of the light source, and means for preventing the projection of any high intensity rays above the horizontal plane occupied by the light source, substantially as described.

1,416,468. AUTOMOBILE BUMPER WINGS. Joseph Hoffman, Camden, N. J. Filed June 21, 1921. Serial No. 479,269. 5 Claims. (Cl. 293—55.)



5. The combination with a steering controlling mechanism of the class stated operably connected to a knuckle joint of the front axle of an automobile, of a bumper connected to the front of said automobile, wings pivoted to said bumper, rods connecting said wings with the knuckle joints of the front axle of said automobile, and a rod connecting said knuckle joints, whereby as an obstacle is encountered by said wings they will move rearwardly causing the front wheels of said automobile to move inwardly and away from the obstacle; said steering controlling mechanism will cause said wheels to resume their former direction after the obstacle has been passed, substantially as described.

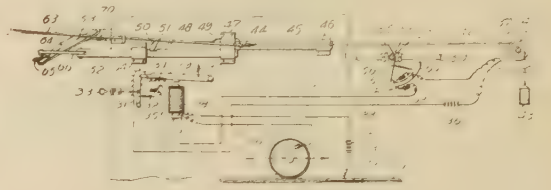
1,416,469. SPRING SUPPORT FOR VEHICLES. Albert Hupp, Oak Park, Ill. Filed Apr. 21, 1921. Serial No. 463,262. 7 Claims. (Cl. 267—60.)



1. In a spring support for vehicles, the combination with a body-supporting frame member, and an axle, of a yoke rigidly secured to said frame member between its ends and formed at its ends with spring engaging heads, a pair of conical coil springs connected at their wide ends to said heads, respectively, and coupling means connecting the narrow ends of said springs to said axle.

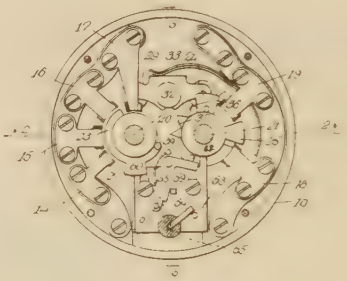
1,416,470. TRAIN-CONTROL MECHANISM. Hermon E. Jamison, Wilmore, Ky., assignor of one-fourth to C. W. Mitchell, Wilmore, Ky. Filed Sept. 24, 1921. Serial No. 502,901. 4 Claims. (Cl. 246—187.)

4. The combination with a locomotive embodying a throttle-valve and an air valve, of a sliding bar composed of separable parts, one of which is connected to the throttle-valve, the other positioned to engage and open the air valve, a motor, means connecting the motor to one of the components of said bar to move the bar to perform said function, means whereby the movement of the bar



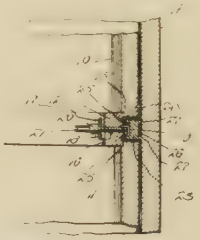
separates the component elements, a circuit for the motor, a switch interposed in the circuit and opened by the bar at its extreme movement, a second switch in said circuit, electrical means for closing said second switch, and means contiguous to the line of travel of said locomotive for energizing said electrical means.

1,416,471. ELECTRIC SWITCH AND MEANS FOR LOCKING IT. James Kavana, Chicago, Ill. Filed Nov. 18, 1920. Serial No. 424,814. 4 Claims. (Cl. 200—44.)



1. An electric switch having a handle for moving one element thereof to closed and to open position in combination with a spring pressed switch-locking bolt; a latch; means carried by the bolt cooperating with the latch to restrain the bolt and means controlled by said handle for moving said latch to release the bolt and lock the switch in open position.

1,416,472. PISTON AND PISTON RING. John W. Kerns, Lincoln, Nebr. Filed Mar. 26, 1921. Serial No. 455,707. 3 Claims. (Cl. 74—109.)

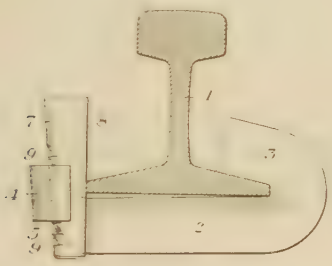


1. A piston having a piston ring groove, a piston ring therein, means for adjustably urging the piston ring outward at a plurality of points comprising pins passing loosely through the piston to the interior thereof and bearing at their outer ends against the piston ring, springs upon the inner face of the piston bearing against said pins, and adjustable means for controlling the tension of said springs.

1,416,473. UNIVERSAL MEASURING IMPLEMENT. EDWARD F. KIRGAN, Cincinnati, Ohio. Filed Nov. 15, 1920. Serial No. 424,092. 2 Claims. (Cl. 33—94.)

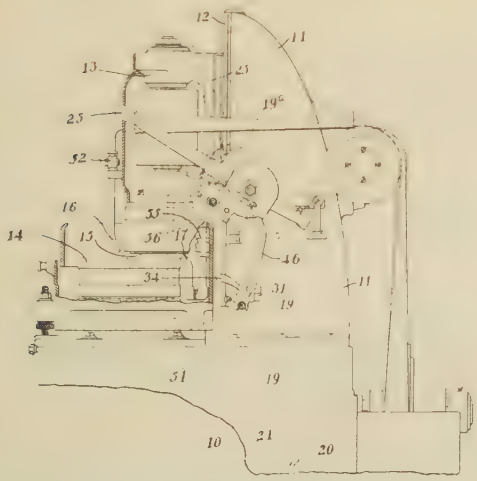
1. A measuring implement comprising a rule proper formed with a longitudinal channel, a protractor-carrying section slidably cooperating with said channel, means for fixing said section in adjusted position on the rule, a protractor-disc carried by the section and having a guide edge, a strip slidably and transversely adjustable with respect to the rule and adapted to cooperate with said guide edge, and means for securing the strip in adjusted position.

1,416,474. ANTICREEPING DEVICE FOR RAILWAY RAILS. CHARLES H. KNELL, Verona, Pa., assignor to Verona Tool Works, Verona, Pa., a Corporation of Pennsylvania. Filed Aug. 13, 1921. Serial No. 491,887. 11 Claims. (Cl. 238—324.)



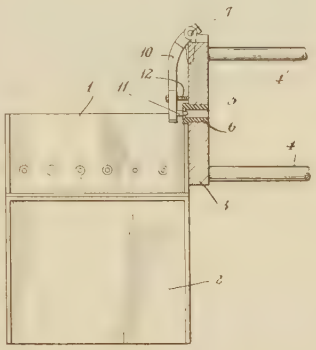
1. An anti-creeper for rails, comprising a member adapted to extend underneath the rail base and having loops at its opposite ends, one of said loops extending at an angle to the other loop and having a vertically extending opening and a key adapted to be driven down within the opening and engage the edge of the rail flange.

1,416,475. WATER-CONTROL SYSTEM FOR SURFACE GRINDERS. CARROLL KNOWLES, Hartford, Conn., assignor to Pratt & Whitney Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 9, 1920. Serial No. 422,901. 15 Claims. (Cl. 51—267.)



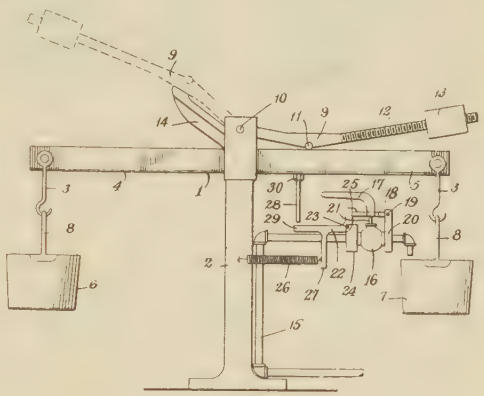
1. In a surface grinding machine, the combination of an annular abrasive wheel, a work table mounted in overlapped relation thereto and out of alignment therewith, and a stationary water supply conduit extending to a point adjacent the periphery of said work table and within the periphery of the abrasive wheel.

1,416,476. DIE-CASTING APPARATUS. JOHN KRALUND, Brooklyn, N. Y., assignor to Doehler Die Casting Company, Brooklyn, N. Y., a Corporation of New York. Filed May 8, 1920. Serial No. 379,712. 3 Claims. (Cl. 22—150.)



2. In casting apparatus, the combination of a die-carrying frame having an end plate with an opening therethrough, adapted to serve as a gate for the die, a shaft on said plate, a handle for oscillating said shaft, an arm secured to said shaft, and a pin on said arm, positioned to knock against a sprue in said opening, when said handle is operated.

1,416,477. WEIGHING APPARATUS. JOHN KRALUND, Brooklyn, N. Y., assignor to Doehler Die Casting Company, Brooklyn, N. Y., a Corporation of New York. Filed May 8, 1920. Serial No. 379,713. 2 Claims. (Cl. 249—6.)

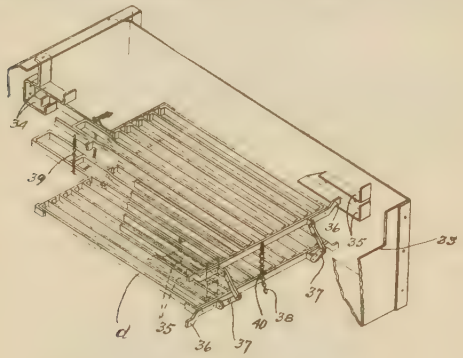


1. In weighing apparatus, the combination of a support, a beam pivoted thereon, containers secured to the opposite arms of said beam, a graduated arm pivotally secured to said support and adapted to bear on one of the arms of said beam, and to be swung out of engagement therewith, a weight adjustably mounted on said graduated arm, a pipe for carrying fluid to the container carried by the beam arm on which said graduated arm is adapted to bear, a valve in said pipe, and means automatically closing said valve when said container with its contained fluid balances the other container with its load.

1,416,478. RANGE. JOSEPH F. LAMB, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation of Connecticut. Filed Sept. 10, 1919. Serial No. 322,797. 10 Claims. (Cl. 126—41.)

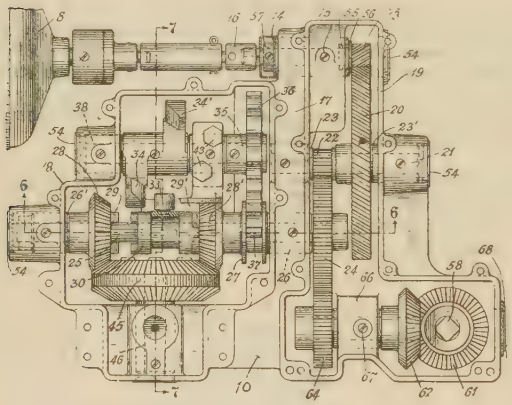
1. In a range, a chamber, means for heating the same,

and a broiler drawer removably located in said chamber beneath said heating means and having an imperforate



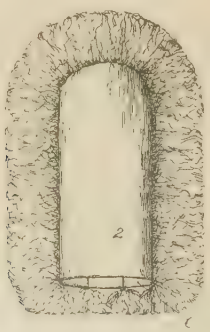
bottom and also a front wall closing the front of said chamber.

1,416,479. DRIVING MECHANISM FOR WASHING MACHINES. JOSEPH F. LAMB, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation of Connecticut. Filed Oct. 20, 1920. Serial No. 418,240. 14 Claims. (Cl. 74—50.)



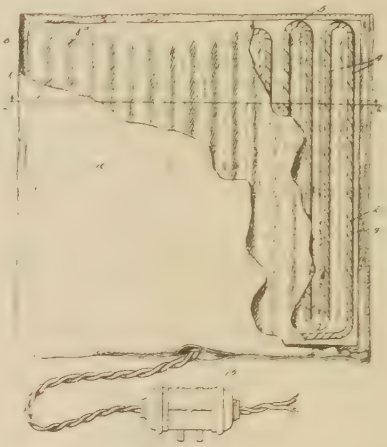
1. In a washing machine, the combination of a power-driven shaft, a countershaft driven thereby, a Geneva movement driven by said counter-shaft, reversing mechanism comprising a shiftable clutch member, and cams intermittently driven by said Geneva movement for shifting said clutch member.

1,416,480. DUSTER. CHARLES H. LEATHERMAN, Cleveland, Ohio, assignor to The Pioneer Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 18, 1918. Serial No. 212,519. 2 Claims. (Cl. 15—227.)



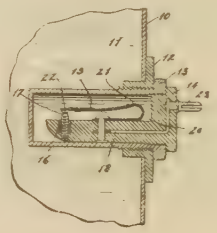
2. An article of manufacture comprising an envelope adapted to receive the hand of the user, said envelope being provided on the palm side between the edges thereof with folds and a row of thickly hung strands of yarn secured to each of said folds.

1,416,481. ELECTRIC HEATING PAD. ANTONIO LONGORIA, Cleveland, Ohio. Filed Feb. 18, 1920. Serial No. 359,728. 4 Claims. (Cl. 219—46.)



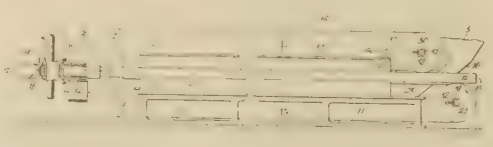
1. An electric heating pad comprising a flexible body portion, a flexible cord-like element distributed uniformly across said body portion, and a plurality of resistance wires of different resistances coiled around said cord-like element, convolutions of one wire being spaced from those of another wire along said cord-like element.

1,416,482. CONTROLLING DEVICE FOR ELECTRIC HEATERS. ANTONIO LONGORIA, Cleveland, Ohio. Filed June 30, 1920. Serial No. 393,062. 6 Claims. (Cl. 219—20.)



1. A heating device, including a heating unit, a thermostatically controlled switch controlling the flow of current thereto, and means for absorbing the rush of current when said circuit is opened.

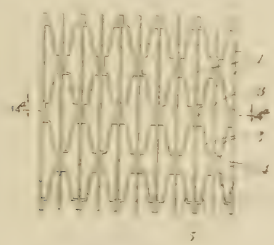
1,416,483. PROCESS AND APPARATUS FOR MANUFACTURING SOAP. ERNEST MERRILL LOVELAND, Hackensack, N. J. Filed Feb. 11, 1921. Serial No. 444,091. 10 Claims. (Cl. 18—26.)



1. The process of forming soap into cakes comprising supplying soap in hot flowable condition, forming the same into a continuous advancing line of soap, and while conveying it molding the cake surfaces so that the top and bottom faces of the ultimate cake are parallel to the

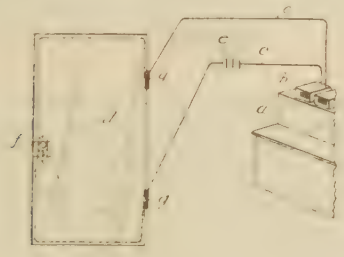
line of movement, cooling the soap to solidify it, and then progressively stripping the molding surfaces away from the soap without movement of the molding surfaces along said cake faces so that said soap is delivered with its surfaces molded into a continuous series of the corresponding surfaces of the final cakes.

1,416,484. GRATING OR VENTILATOR. WALTER H. LOWN, Jersey City, N. J., assignor to Kerlow Steel Flooring Co., Jersey City, N. J., a Corporation of New Jersey. Filed Aug. 30, 1921. Serial No. 496,803. 11 Claims. (Cl. 189—82.)



1. In a grating a pair of longitudinal strips and a spacing member therebetween, the spacing member having staggered portions thereof parallel and in contact with said strips, other portions substantially normal to the first mentioned portions, and still other portions disposed at an obtuse angle to said second mentioned portions of the spacing member.

1,416,485. ELECTRICAL INDICATING SYSTEM. WILLIAM A. LURIE, New Orleans, La. Filed Nov. 17, 1919. Serial No. 338,660. 1 Claim. (Cl. 177—338.)



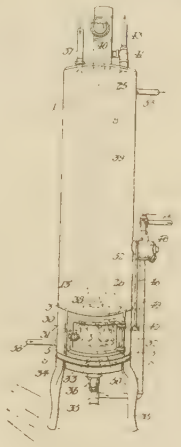
In combination with a door and means for locking and unlocking the same, of a revolving member having a plurality of indicia thereon representing the locking of the door from the outside and a plurality of other indicia thereon representing the unlocking of the door from the outside, alternate indicia being the same, electromagnetic means for moving said member step by step in the same direction a distance corresponding to a single indication and means actuated by either the locking or the unlocking of the door from the outside for causing said electromagnetic means to move said member one step.

1,416,486. GARMENT AND THE LIKE. LOUIS MACHEROUX, Chicago, Ill., assignor of one-half to Karl Matheus, Chicago, Ill. Filed Apr. 30, 1920. Serial No. 377,872. 3 Claims. (Cl. 267—69.)

1. As a new article of manufacture, a contractile element of the class described comprising two box-like members open at their facing sides, a spring-retracted reel within each of said members, a cord secured to and working on each of said reels and having its free end connected to the interior of the other box-like member, said reels being spring pressed to turn in the same direction of rotation and the free ends of the cords connecting to the interior portions of the two box-like members on opposite sides of the line joining the centers of the reels, whereby the pulls of the two cords balance on the two sides of the contractile element, and a telescoping plate projection on

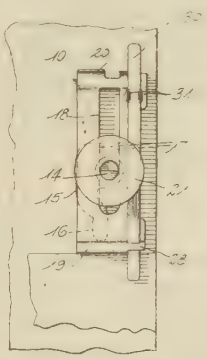
the upper part of one of the box-like members reaching into the other box-like member and spanning the space between the members, substantially as described.

1,416,487. GAS WATER HEATER. VICTOR MAUCK, Norristown, Pa. Filed July 9, 1921. Serial No. 483,449. 7 Claims. (Cl. 126—350.)



7. In a gas water heater, the combination with a closed tubular casing shell, having a door opening in its circumference, near one end thereof; of a circumferential bead formed in said shell adjacent to said opening, whereby said shell is reinforced at said opening; said bead extending in toric form in said shell; a tubular flue in coaxial position in said shell; a water compartment formed between said shell and flue; said water compartment being closed intermediate of the length of said shell, by a partition, adjacent to said door opening; and a burner compartment in said shell, formed by the skirt portion of said shell extending below said partition, and including said door opening.

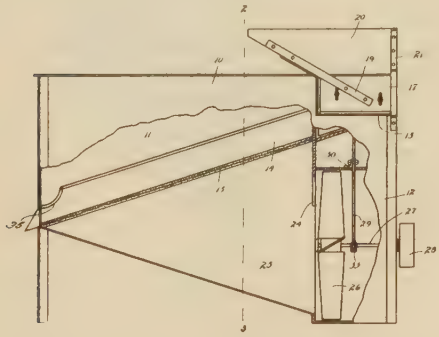
1,416,488. FEED GAUGE FOR PRINTING PRESSES. EDWARD L. MEGILL, New York, N. Y. Filed Mar. 19, 1918. Serial No. 223,342. 5 Claims. (Cl. 101—415.)



1. The combination of a tympan sheet having an elongated slit therein, of a gauge comprising a head and a base

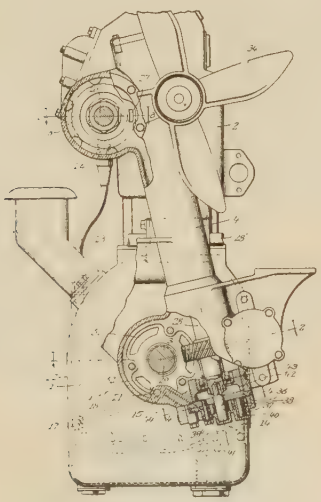
member secured together, a portion of said base member adapted to be inserted within the slit in the tympan sheet at a right angle thereto then turned therein to position said inserted portion across the slit.

1,416,489. GRAIN SEPARATOR. WILLIAM T. MERZENICH, Minneapolis, Minn. Filed Apr. 30, 1920. Serial No. 377,859. 10 Claims. (Cl. 130—17.)



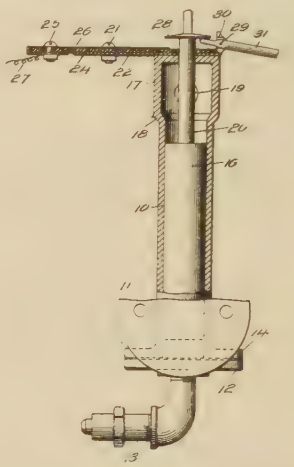
1. A pneumatic grain cleaner having in combination a casing, an inclined trough-like runway extended through said casing and provided with a perforate bottom, said casing forming an air chamber above said trough, and air chambers having imperforate walls extending downwardly at each side of said trough continuous with said air chamber, a fan having a casing with an air intake port in communication with said latter air chambers, the outlet of said fan casing being directed outside of said casing into the atmosphere, whereby the lighter material fed into said runway is carried upwardly out of the same and downwardly at each side thereof into said fan casing.

1,416,490. OILING SYSTEM FOR INTERNAL-COMBUSTION ENGINES. ADOLPH MONSEN, Logansport, Ind. Filed Dec. 20, 1918. Serial No. 267,622. 9 Claims. (Cl. 184—6.)



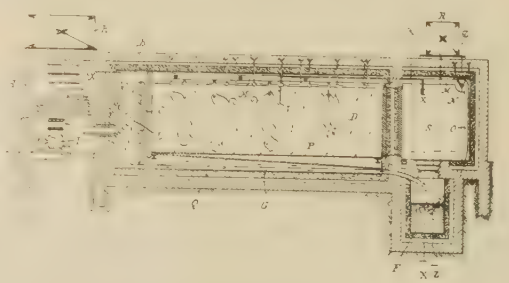
7. A mechanism of the character described including in combination, a crank casing, an engine casing having a valve casing, a crank shaft mounted in said crank casing, a cam shaft mounted in said valve casing, said valve casing having a projection to afford a bearing for said cam shaft, said crank casing having a projection to afford a bearing for said crank shaft, a hollow post having enlargements to provide casings to fit said projections on the cam shaft and crank shaft, respectively, a vertical shaft in said hollow post having gears for driving said cam shaft and other operating parts of the mechanism and also having a gear adapted to be driven from said crank shaft, a passage in said projection of the valve casing for providing communication between the valve casing and the hollow stud and a passage through the projection of the crank casing for providing communication between the crank casing and the hollow port, an oil pump mounted on the lower end of said vertical shaft, inlet and discharge passages provided in the projection from the crank casing, pipes communicating with said passages and extending through said crank casing, the inlet pipe having an opening near the bottom thereof and the discharge pipe having a plurality of openings corresponding to the cranks on the crank shaft, said discharge pipe also having communication with said valve casing.

1,416,491. PRESSURE-OPERATED SWITCH. TRACY D. MONTEE, Iloilo, Philippine Islands. Filed Oct. 18, 1920. Serial No. 417,671. 2 Claims. (Cl. 200—84.)



1. A device of the class described comprising a cylinder having a plunger and an inlet at one end to provide for the entrance of liquid under pressure to maintain the plunger normally at one end of the cylinder, a stationary contact device attached to the cylinder and adapted for connection with electric governing devices, a contact associated with the plunger and movable therewith and held normally from contact with the stationary contact by the plunger and adapted to close a circuit when the pressure against the plunger is reduced, a stop lever pivoted near one end and having its shorter end extending into the path of the movable contact whereby closing of the circuit is prevented.

1,416,492. REFRIGERATING PLANT. JAN MORAWSKI, Buenos Aires, Argentina. Filed June 19, 1919. Serial No. 305,267. 2 Claims. (Cl. 62—6.)



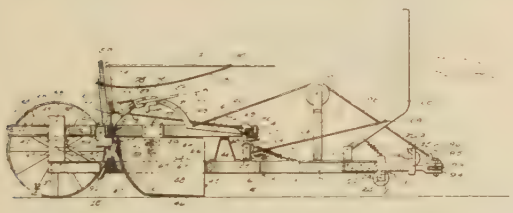
1. In a refrigerating plant, the combination of a cold-storage chamber having a perforated bottom, an inclined perforated plate beneath the same, a separate chamber containing a refrigerating medium, a communicating pas-

sage between said two chambers terminating beneath said inclined plate, a separate chamber containing an air-purifying medium, a communicating passage between said cold-storage chamber and said purifying chamber, and thermostatically-controlled means for circulating air from said refrigerating chamber through said perforated plate and perforated bottom into said cold-storage chamber, through the latter and into said purifying chamber, and thence back to said refrigerating chamber.

1,416,493. PROCESS OF MAKING COMBUSTIBLE MATERIAL. HARRY S. MORK, Brookline, and GUSTAVUS J. ESSELEN, Jr., Swampscott, Mass., assignors to Arthur D. Little, Inc., Cambridge, Mass., a Corporation of Massachusetts. Filed Sept. 10, 1919. Serial No. 322,954. 10 Claims. (Cl. 44—7.)

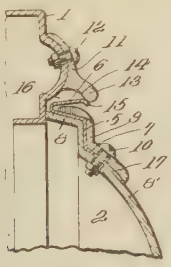
2. The process of making an infusible solidified liquid combustible material, which comprises dissolving pyroxylin in a volatile combustible solvent the formula of which contains a carbonyl group, coagulating the solution in a volatile combustible non-solvent; preparing a second solution of pyroxylin in a suitable solvent, said second solution being close to the point of coagulation; and mixing the coagulated solution with the non-coagulated solution to solidify the mixture.

1,416,494. SCRAPING OR LEVELING MACHINE. FREDERICK R. MORTON, Fresno, Calif. Filed Apr. 11, 1921. Serial No. 460,274. 10 Claims. (Cl. 37—33.)



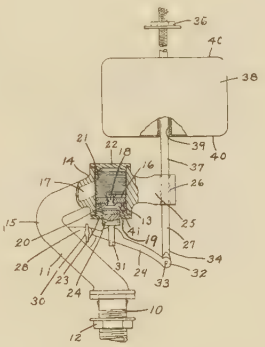
1. In a machine of the character described, a main frame, wheels supporting the same, a supplemental frame, means whereby the supplemental frame is supported by the main frame and is adapted to move upwardly with relation to the main frame, a scraping element supported by the supplemental frame, a draft device movable longitudinally with relation to the main frame, means for connecting the draft device with the supplemental frame so that the pull upon the draft device is transmitted to the supplemental frame and the supplemental frame raised with relation to the main frame when the supplemental frame is free to partake of upward movement, and means to prevent the upward movement of the supplemental frame with relation to the main frame and adapted when actuated to release the supplemental frame.

1,416,495. DOOR LATCH. CHARLES MUNZNER, Chicago, Ill., assignor to American Stove Company, St. Louis, Mo., a Corporation of New Jersey. Filed Dec. 17, 1920. Serial No. 431,358. 9 Claims. (Cl. 292—76.)



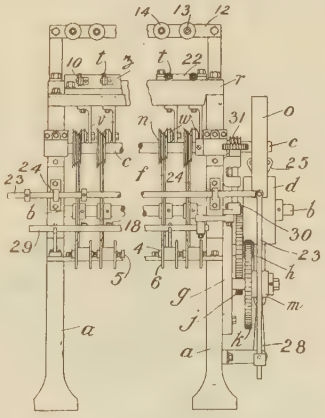
1. The combination of a door and frame, the door carrying a flat spring having a U-shaped end, the frame provided with an outwardly extending catch having an inner concaved face and a downwardly extending end, and the U-shaped end of the spring adapted to compress beneath and lie within the catch, for the purpose described.

1,416,496. BALL COCK. LOUIS NAIR, New Britain, Conn. Filed Apr. 8, 1921. Serial No. 459,669. 2 Claims. (Cl. 137—104.)



1. A ball cock comprising a body having an inlet and having an outlet provided with a valve-seat, a valve for closing against the said seat, a lever for operating the said valve, a vertically directed float rod connected to the said lever and extending upwardly above the cock structure, guide means for the said rod, a stop device at the upper end of the said rod, and a float slidably mounted on the portion of the said rod adjacent to and below the said stop device.

1,416,497. MACHINE FOR COVERING WIRE WITH SILK, COTTON, OR THE LIKE. JOHN NARIZZANO, Hampton Wick, England. Filed Dec. 30, 1919. Serial No. 348,420. 3 Claims. (Cl. 117—43.)

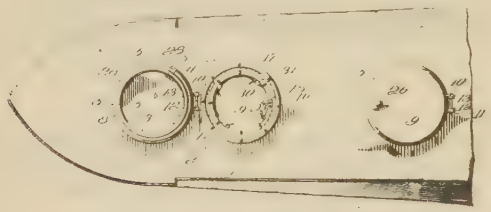


1. In a machine for covering wire, the combination of a series of spinner heads arranged one in advance of the other and disposed on a substantially horizontal axis, flyers on said spinner heads, a separate drive for each spinner head for rotating the same in opposite directions, a winding bobbin for each pair of spinner heads, a series of tubular bobbin holders each arranged in axial alignment with one of said spinner heads for supporting spare bobbins, and mechanical means for varying the relative speed of the flyers and the winding bobbins.

1,416,498. RELEASING MECHANISM FOR LIFE-BOATS. ALCANZO D. NEWCOMB, Norfolk, Va., assignor, by mesne assignments, of one-half to Richard D. L. Fletcher, Cape Charles, Va., and one-half to Robert T. Marsh, Richmond, Va. Filed Feb. 27, 1917. Serial No. 151,249. 13 Claims. (Cl. 9—22.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

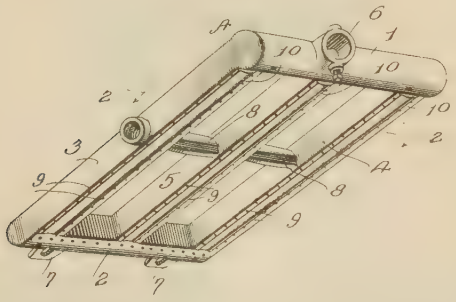
6. A releasing mechanism for life boats comprising lashing engaging members carried by the deck of the boat at the forward and rear ends, members carried by the forward and rear end of the deck for engaging the davit hooks, means for simultaneously releasing the forward and rear lashing engaging members from within the boat, and means for simultaneously releasing the davit engaging members from above the deck.

1,416,499. HATCH FOR BOATS. ALCANZO D. NEWCOMB, Norfolk, Va., assignor, by mesne assignments, of one-half to Richard D. L. Fletcher, Cape Charles, Va., and one-half to Robert T. Marsh, Richmond, Va. Filed Mar. 12, 1917. Serial No. 154,201. 7 Claims. (Cl. 114—201.)



1. The combination with a boat having a hatch opening, a pivoted hatch covering said opening, and a horizontally pivoted latch carried by the lower face of the hatch on the inside of the opening.

1,416,500. OVEN BURNER. FREDERIC G. NICOLAUS, Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo., a Corporation of New Jersey. Filed Feb. 14, 1921. Serial No. 444,825. 7 Claims. (Cl. 158—116.)

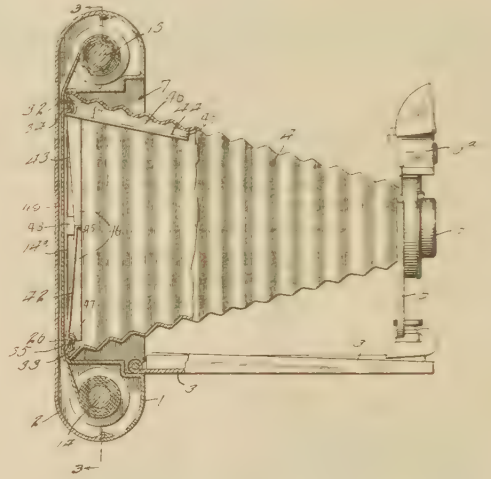


3. A single burner conduit having two channels formed in the outer face of the bottom wall of the conduit, the respective channels located in the edges of the bottom wall of the conduit, the bottom wall of the conduit having divergently and outwardly extending gas exits communicating with the channels and with the conduit, whereby the flames from the exits are projected beyond the side walls of the conduit, for the purpose described.

1,416,501. CARBURIZING MATERIAL. NIELS D. NIELSEN, Elyria, Ohio. Filed May 6, 1920. Serial No. 379,259. 1 Claim. (Cl. 148—30.)

The process of hardening metals, consisting in drying whole fish bodies, pulverizing the same and in heating said metals in the pulverized material resulting until the desired amount of carbon is absorbed and then quenching to suddenly lower the temperature.

1,416,502. MULTIPLE-EXPOSURE ATTACHMENT FOR CAMERAS. ARLIE PAYNE, Paragould, Ark. Filed Nov. 10, 1920. Serial No. 423,059. 3 Claims. (Cl. 95—36.)



1. A multiple exposure attachment for cameras, comprising a frame having alined apertures in the sides thereof, bearing plates secured to the top and bottom and intermediately of the sides of said frame, shafts of angular cross section and having end spindles mounted between the bearing plates, shutters attached to said shafts of angular cross section, and having flanged, light excluding meeting edges, and means for successively operating said shafts and shutters and locking the same to the sides of the camera.

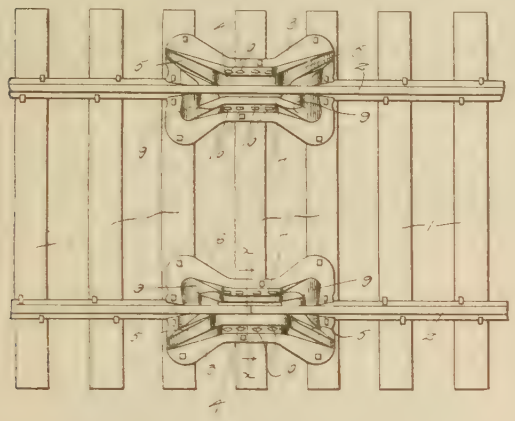
1,416,503. VANITY CASE OR POWDER BOX. ARTHUR MASTERS PEACOCK, Wigan, England. Filed July 18, 1921. Serial No. 485,737. 7 Claims. (Cl. 132—82.)

1. A powder box having a circular opening with two diametrically opposite projections, a lid foldable across its centre adapted to fit in said opening, and a puff attached to the underside of the lid.

1,416,504. RAIL JOINT AND CAR REPLACER. CHARLES L. PETTY, Haskell, Okla. Filed Feb. 10, 1921. Serial No. 443,927. 3 Claims. (Cl. 104—267.)

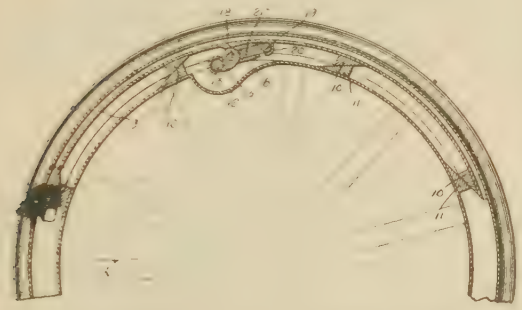
1. A plate made from a blank having an upstanding portion, a depending portion to abut track rails, the

latter portion having a free terminal edge in contact with the other portion, securing means to extend from the



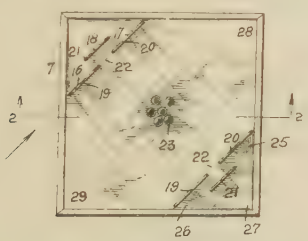
track rails through said portion, and said portion being spaced apart about said securing means.

1,416,505. DEMOUNTABLE RIM. RALPH H. PIERCE and GEORGE A. ANDERSON, Eugene, Oreg. Filed June 9, 1921. Serial No. 476,261. 3 Claims. (Cl. 301—17.)



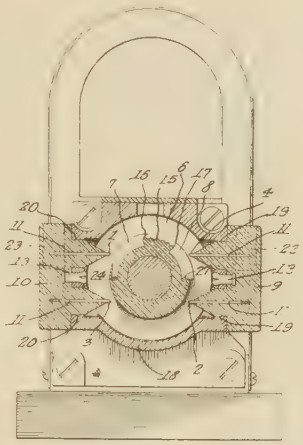
1. The combination with a channelled wheel felly and a rim mounted on the felly, of an arc-shaped member located in the felly, means whereby circumferential movement of said member locks the rim on the felly, means for moving said member circumferentially, said last mentioned means including a shaft journalled in the felly, a crank arm carried by the shaft, an adjustable link connecting the crank arm and the arc-shaped member, and means for turning said shaft.

1,416,506. AMUSEMENT GAME. THOMAS HARVEY POPE, Brooklyn, N. Y. Filed Mar. 11, 1920. Serial No. 365,126. 15 Claims. (Cl. 46—41.)



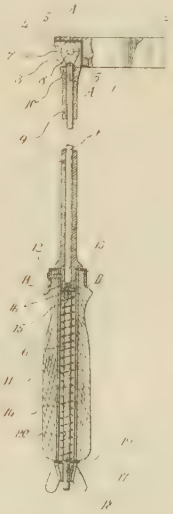
14. In a puzzle, a floor having inclined portions at all corners thereof, partitions in two of said corners to form compartments, and a plurality of balls adapted to be corralled and held in said compartments.

1,416,507. COLLECTOR AND DISTRIBUTOR SYSTEM FOR HIGH-TENSION MAGNETOS. HARLIE O. PUTT, Elkhart, Ind., assignor to Ace Magneto Company, Goshen, Ind., a Corporation of Indiana. Filed June 16, 1920. Serial No. 389,487. 9 Claims. (Cl. 123—149.)



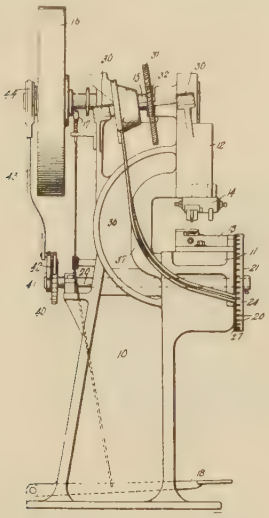
1. In a device of the class described, as a new article of manufacture, a spool-shaped distributing ring of insulating material having a portion of its surface corrugated, and oppositely disposed metallic inserts mounted on the distributor ring at opposite portions thereof and angularly disposed a definite degree in relation to each other and having their extreme ends spaced apart to form a safety gap, these ends being positioned on opposite sides of the corrugated portion of the distributor ring.

1,416,508. SOLDERING IRON. ALFRED GABRIEL QUIRY, Neuilly-sur-Seine, France, assignor to Pierre Jean Robert Amiard, Paris, France. Filed Mar. 26, 1921. Serial No. 455,821. 4 Claims. (Cl. 113—105.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



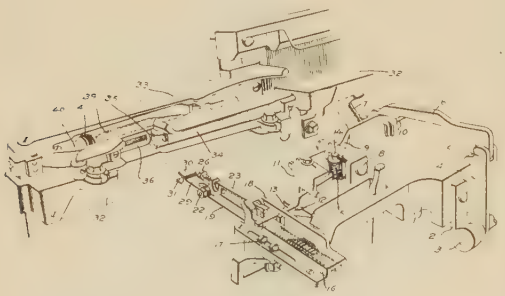
1. A soldering iron of the class specified, comprising a stem, a tubular socket in which the stem is reciprocatingly mounted, a handle attached to the socket, and a bit pivotally connected to the one end of the stem and having varying angular surfaces at the heel portion adjacent to the point of pivotal connection thereof to the stem to effect angular adjustment of the bit with relation to the end of the socket and means for sustaining the bit in its adjusted position.

1,416,509. RIVET-FEEDING MECHANISM. ARISTIDE F. RENAUD, New Orleans, La., assignor to The Renaud Company, Cincinnati, Ohio, a Corporation of Ohio. Filed July 29, 1920. Serial No. 399,805. 7 Claims. (Cl. 78—49.)



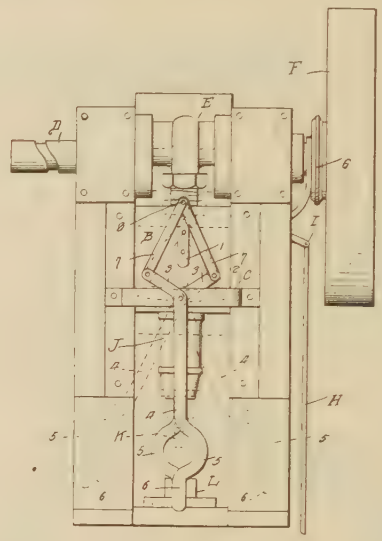
1. The combination with a punch press having a drive shaft, a drive pulley loosely mounted thereon, and a clutch means operable to couple the latter to the former, of a rivet feeding mechanism comprising a hopper, a receiving agitator drum communicating with the hopper, means for rotating the drum from the drive shaft, a magazine snaft, a magazine keyed thereto, a chute serving to establish communication between the drum and the magazine, the outlet end of said chute being arranged to feed the rivets to the magazine with their shanks horizontal and their heads vertical, whereby to roll the rivets into the magazine.

1,416,510. FEELER MECHANISM FOR LOOMS. ALONZO E. RHOADES, Hopedale, Mass., assignor to Draper Corporation, Hopedale, Mass., a Corporation of Maine. Filed June 11, 1919. Serial No. 303,360. 3 Claims. (Cl. 139—85.)



1. A feeler mechanism for filling replenishing looms, comprising, in combination, a feeler mounted upon a fixed portion of the loom to enter the shuttle on a detecting beat through an opening in the side of the shuttle and provided with an integrally formed yoke-like rear end adapted to pass into the shuttle through said opening and having the legs of the yoke relatively unyielding to caliper the diameter of the filling in the shuttle by entrance of the filling carrier between the spaced legs of the yoke-like end of the feeler when the filling is substantially exhausted, a feeler slide for supporting the feeler for movement towards and from the front of the loom, a spring acting to normally maintain the yoke-like end of the feeler in its rearward feeling position, an actuator pivotally mounted upon the slide, a bunter carried by the actuator to engage the side wall of the shuttle when the filling carrier passes into the yoke-like end of the feeler on a detecting beat, a controller adapted to be engaged by the actuator when the actuator is moved by the bunter, and means positioned by the controller to effect replenishment of filling.

1,416,511. PUNCH-PRESS GUARD. BENJAMIN D. RHODES, Milwaukee, Wis. Filed Nov. 29, 1921. Serial No. 518,590. 5 Claims. (Cl. 74—105.)

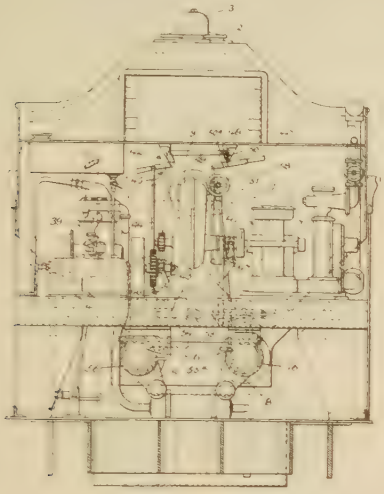


1. The combination with a punch press including an operating block and a punch head positioned beneath the same, of a pair of guard members rockably supported by the frame of the press and extending downwardly in front of the punch head, each of said members being provided adjacent its lower end with an outwardly directed frame element, said frame elements cooperating when the guard members are in inoperative position to provide a frame through which an operator standing in front of the press may view work placed on the punch head, the lower portion of each of said frame elements being extended to provide a wiping element, and means for rocking said guard members about their common axis when the block is reciprocated so as to swing said members transversely of the press in opposite directions when the block is lowered, the guard members being moved into substantial vertical position when the block is raised.

1,416,512. MEANS FOR USING PULVERIZED FUEL IN THE FURNACES OF STEAM GENERATORS. JOHN GEORGE ROBINSON, Manchester, England. Filed May 26, 1917. Serial No. 171,160. 6 Claims. (Cl. 110—28.)

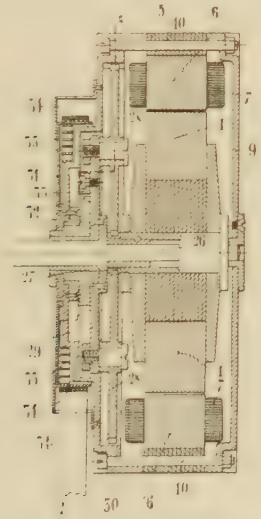
1. Means for enabling pulverized fuel to be consumed in furnaces comprising a receptacle for the powdered fuel, conveyors associated with the receptacle for conveying the powdered fuel, nozzles adjacent the furnace firebox to which said fuel is conveyed, means for supplying an air blast to the nozzles whereby the fuel conveyed to said nozzles is blown into the furnace firebox, a prime mover driven by steam generated in the boiler heated by said furnace for normally driving said conveyors and said air blast supplying means, a second prime mover for driving said conveyors and said air blast supplying means, and means for connecting up either of said prime movers to drive said conveyors and air blast supplying means and simultaneously disconnecting the other of said prime

movers at will, means for varying the speed of the fuel conveyors, air valve controlling means, and a connection



between said speed varying means and said air controlling means whereby the supplies of fuel and air are simultaneously varied.

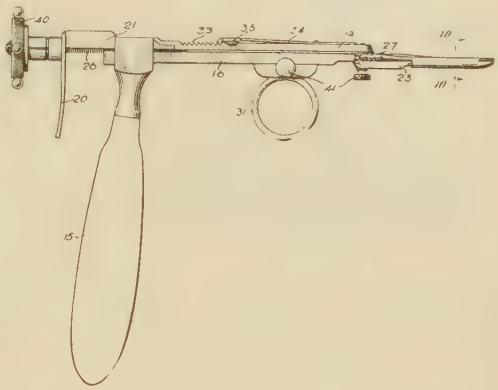
1,416,513. GENERATOR FOR ELECTRIC LAMPS. SYLVAIN ROSENGART, Paris, France, assignor to La Société dite: Etablissements L. Rosengart Siège Social, Paris, France. Filed Oct. 23, 1918. Serial No. 259,415. 3 Claims. (Cl. 171—76.)



3. In a device of the character described the combination of a casing; a generator within the casing including a rotatable magnet; and mechanism for rotating said magnet comprising a pinion on the axle of the magnet, a rotatable disk, a pair of gears revolubly mounted on said disk in mesh with said pinion, a ring gear fixed in said casing in mesh with both gears and encircling the same, a pinion disposed co-axially with said disk, a pawl-and-ratchet connection between the second-named pinion and said disk to drive the latter from the former, and means for rotating the second-named pinion.

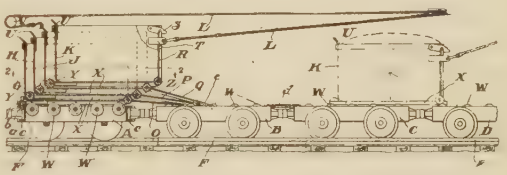
1,416,514. SURGICAL INSTRUMENT. AARON SAPERSTEIN, Brooklyn, N. Y. Filed Jan. 19, 1921. Serial No. 438,423. 5 Claims. (Cl. 128—320.)

1. A surgical instrument, including a track member, a snare carrier arranged upon said track member, a traveler positioned upon the body portion of said snare carrier, a table forming the outer end of said track member and presenting an opening, a crushing blade attached to said traveler and adapted to be slidably projected adja-



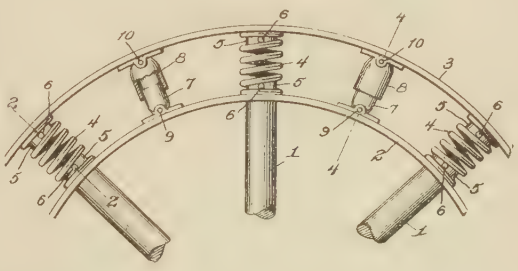
cent the opening of the table, a snare attached to the body portion of said snare carrier and adapted to lie adjacent said blade, and normally encircle the opening of said table, and means for moving said snare carrier and traveler.

1,416,515. METHOD OF AND APPARATUS FOR LOADING. WILLIAM L. SAUNDERS, Plainfield, N. J., assignor to Ingersoll-Rand Company, Jersey City, N. J., a Corporation of New Jersey. Filed May 25, 1921. Serial No. 472,483. 9 Claims. (Cl. 214—38.)



6. In apparatus for removing broken material from the heading end of an entry or tunnel, the combination of a train of empty cars, hoppers or buckets nested on the car nearest the heading in position to be loaded by a mechanically operated loading machine, and means for drawing said hoppers or buckets from the heading end to the rear of the train.

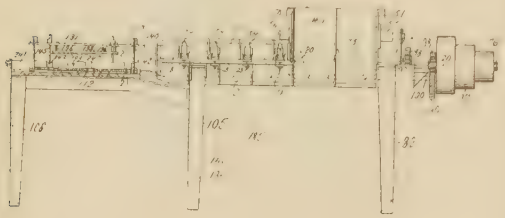
1,416,516. SPRING WHEEL. LEO L. SAVOIE, New Orleans, La. Filed Mar. 10, 1921. Serial No. 451,158. 1 Claim. (Cl. 152—32.)



A spring wheel having spokes, an inner fixed rim, an outer movable rim, coiled cushioning springs between said

rims, and jointed stays connecting the rims and arranged in alternation with the springs, each stay comprising a pair of members telescopically engaged with each other, said members being hinged to the rims.

1,416,517. BUTTER CUTTING AND PRINTING MACHINE. ALBERT SHARP, Bayonne, N. J., assignor of one-half to George Sharp, Bayonne, N. J. Filed June 30, 1919. Serial No. 307,819. 12 Claims. (Cl. 31—65.)



1. In a machine of the character described, the combination of a charging chamber and a conveying chamber, pusher blades in the charging chamber, means to actuate said blades, a spiral conveyer in the conveying chamber and means to actuate the conveyer simultaneously with the movements of the pusher blades.

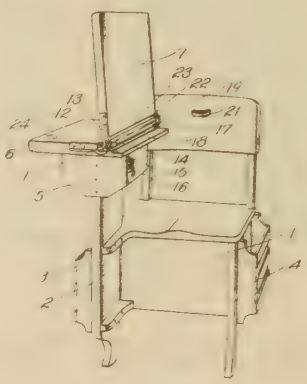
5. In a machine of the character described the combination of cutting means for a material operated upon, means to swing down said cutting means, means to simultaneously move forward said cutting means, means to print on said material just after the cutting means have swung down, means to translate the cutting means to its first position while in its swung down position, means to next swing up said cutting means, means to print on said material just before the cutting means is completely swung up and means to continuously move forward the material operated upon.

7. In a machine of the character described the combination of a cutting arm, a cutting wire carried by said arm, a shaft enabled to oscillate and longitudinally reciprocate said arm, a journal bracket in said machine, a rotating shaft journaled in said bracket, a sleeve with an arm fastened to the latter shaft, a roller journaled in the latter arm, a lever with one end pivoted to the said bracket and having a heel at one end in the path of the roller of the rotating shaft, the said lever having an elongated slot at the other end, a sleeve with an arm secured to the oscillating shaft and a bolt carried by the latter arm extending through said elongated slot, the rotations of the rotating shaft causing the roller on the arm thereof to contact with said heel, said lever having the heel thereby pulling down the other bolt causing the oscillating shaft to oscillate and thus swing up the cutting arm with its cutting wire.

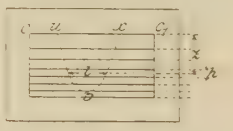
10. In a machine of the character described the combination of a pair of cutting arms, a pair of screws connecting said arms, an adjusting sleeve in threaded engagement with each screw, a lock nut on each screw for each adjusting sleeve, a wire carrying sleeve supported on each adjusting sleeve and a wire connecting the wire carrying sleeves.

12. In a machine of the character described the combination of a charging chamber and a conveying chamber connected to the charging chamber, a pair of pusher blades in the charging chamber, a pair of conveyers in the conveying chamber and extending into the charging chamber below said pusher blades, a shaft connected to each conveyer, a shaft supporting each pusher blade, means to rotate one of the conveyer shafts, means to transmit rotation from the latter shaft to the other conveyer shaft, means to transmit rotation from the conveyer shafts to the pusher blade shafts, a side shaft for the machine, means to transmit rotation from one of the conveyer shafts to the side shaft, an oscillating and reciprocating shaft in the machine, means to operate the latter shaft from the side shaft, cutting arms carried by the oscillating shaft, cutting wires carried by the cutting arms and printing arms carried by said oscillating shaft.

1,416,518. DESK TOP. WILLIAM A. SMILEY, Kansas City, Mo., assignor to The Inner Braced Seating Company, Kansas City, Mo., a Corporation of Missouri. Filed Feb. 17, 1921. Serial No. 445,848. 2 Claims. (Cl. 45—91.)



1. A desk top comprising a fixed member having an edge portion of less thickness than the body part provided with an undercut recess and an adjacent, upstanding rib, an extension hinged to the body of the fixed member, having a tongue projectable into said undercut recess and a groove for receiving said rib, the face of said tongue and the face of said recess being concentric with the hinge axis.

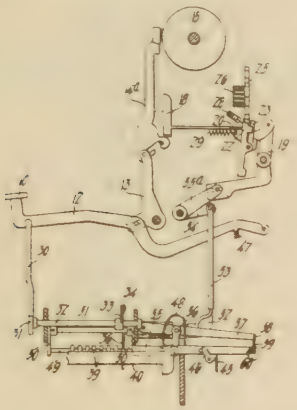
1,416,519. INTEGRATING APPARATUS FOR GRAPHIC INTEGRATION CALCULATIONS. LARS SPARR, Stockholm, Sweden. Filed Mar. 26, 1921. Serial No. 455,956. 3 Claims. (Cl. 235—61.)

1. Integrating apparatus for graphic integration calculations, comprising a plate and a series of parallel strips on said plate, the individual widths of which are chosen in such way that the integral sum to be calculated is a direct function of the lengths of said strips falling within the area to be calculated and may be found by adding up said lengths.

1,416,520. COMBINED TYPEWRITING AND COMPUTING MACHINE. BURNHAM C. STICKNEY, Elizabeth, N. J., assignor to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Nov. 8, 1918. Serial No. 261,589. 26 Claims. (Cl. 235—60.)

3. In a combined typewriting and computing machine, the combination of numeral keys, a carriage, rows of index pins or devices, bars upon which said rows of pins are carried, springs for returning said bars, projections upon said bars, key-operated index pin setters, and key-controlled means to locate said bars in normal positions.

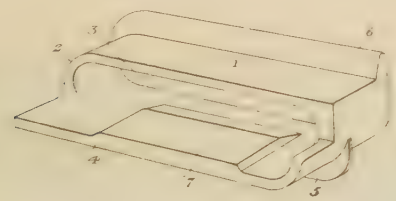
11. In a combined typewriting and computing machine comprising a typewriter carriage, a feeding mechanism therefor, a universal bar mechanism to control said feeding mechanism, alphabet type-actions having means connected to operate said universal bar mechanism, numeral

type actions unprovided with means to operate said universal bar mechanism, a computing mechanism comprising rows of index pins or devices, denomination-selecting mechanism controlled by said carriage for displacing the index pins or devices row after row, devices individual to said numeral type-actions for setting the index pins or



devices on the displaced rows, a special bar universally operable by said setting devices, a connection from said special universal bar to the typewriter universal bar mechanism to operate the latter, and means also controlled by said special universal bar for returning the rows of index pins to normal positions.

1,416,521. TROWEL. WILLIAM M. STOUT, Halstead, Kans. Filed Mar. 23, 1920. Serial No. 368,180. 1 Claim. (Cl. 94—45.)

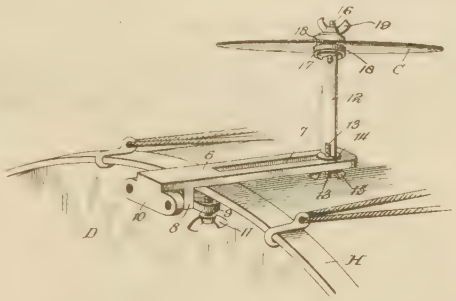


A trowel of the class described comprising a body of rectangular shape and having one of its diagonal corners rounded off, said body having an opening therein to provide a hand hold, an extension provided on one side of said body and the outer face of said extension forming a continuation of one face of the body so that said face will be of greater width than the opposite face, the inner face of said extension forms a continuation of one of the walls of the opening, a longitudinally extending flange being provided on the wide face of said body and midway its side edges thereof, said flange curved upwardly over the curved end of this face, a flange provided on the narrow face of said body and the outer face of said flange being flush with the side edge of said body and its inner face being slightly inclined, said flange having one end curving upwardly over the curved end of said narrow face, thickened portions being provided on the inner face of said extension for engaging the knuckles of the hand.

1,416,522. CYMBAL HOLDER. FRED M. STRAIGHT, Bristol, R. I., assignor of one-half to Frank Harvey Straight, Bristol, R. I. Filed Dec. 18, 1920. Serial No. 431,594. 6 Claims. (Cl. 248—20.)

4. A cymbal holder comprising a rigid bar, means at one end of said bar for connecting a cymbal thereto, and separate means at the other end of said bar for fastening the latter to a drum in a plurality of different positions with the bar in either a horizontal or vertical position.

6. A cymbal holder comprising a bar, means for mounting the same in position, a flat spring mounted at one end

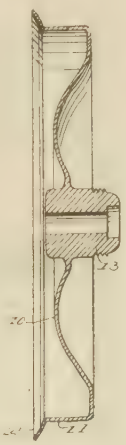


on the bar and projecting therefrom, and means at the other end of the spring for connecting a cymbal thereto, whereby the spring is free to vibrate.

1,416,523. LIFE PRESERVER. JACOB STROBEL, New York, N. Y. Filed June 23, 1921. Serial No. 479,805. 4 Claims. (Cl. 9—19.)

1. A flexible tubular life belt, including rigid end walls, one of said end walls having an air port therein, a spring held plate pivoted on the outer face of said wall, a valve carried by the plate, and means having rolling engagement with the plate to close the valve against the action of the spring.

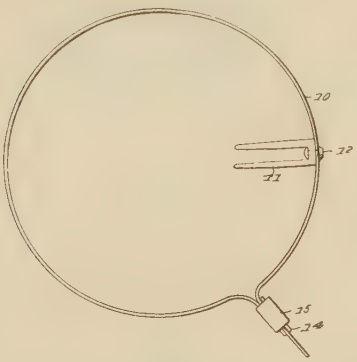
1,416,524. PRESSED STEEL WHEEL AND METHOD OF PRODUCING THE SAME. JOSEPH F. SURRIDGE, Chicago, Ill. Filed Nov. 30, 1921. Serial No. 518,880. 5 Claims. (Cl. 301—163.)



5. A pressed metal wheel consisting of a disk formed with a central opening having the surrounding edge later-

ally deflected from the plane thereof, and a hub of transversely expanded material in which the said deflected edge is embedded and welded.

1,416,525. RETAINER FOR LIGHTNING RODS OR GROUND WIRES. HERBERT A. TAYLOR, Sheffield, Ala. Filed June 15, 1921. Serial No. 477,756. 3 Claims. (Cl. 85—49.)



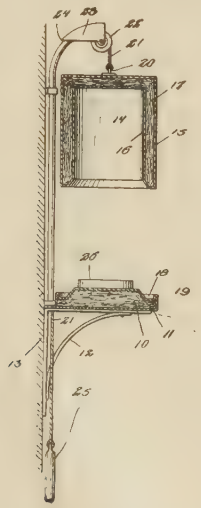
1. A retainer for the purpose described having a strap of which one extremity is perforated for the reception of the other end thereof, the second-named end being folded to form a loop, and a folded keeper engaged with the folded end and interposed extremities of the strap.

1,416,526. INSECTICIDE. MAX LEONARD TOWER, Middleport, N. Y., assignor to Niagara Sprayer Co., Middleport, N. Y., a Corporation of New York. Filed Sept. 15, 1919. Serial No. 323,772. 7 Claims. (Cl. 167—6.)

1. An insecticide comprising a nicotine salt solution, a dehydrating agent, fine sulphur acting as a base in which the nicotine salts and the dehydrating agent are suspended and an arsenate.

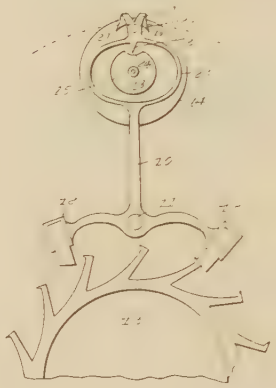
7. An insecticide in the form of dust comprising a substantially forty per cent nicotine sulphate solution, a dehydrating agent sufficient to dehydrate said solution, a metallic arsenate, tobacco dust and finely divided sulphur.

1,416,527. ELECTRIC FIRELESS COOKER. PERCIVAL J. TOWNSEND, Redwood City, Calif. Filed May 25, 1920. Serial No. 384,132. 2 Claims. (Cl. 219—35.)



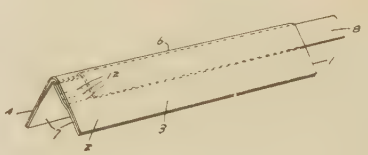
1. A device of the character described comprising a base, heating means upon said base, and a removable hood seating upon the base and formed as a heat retaining member, the outer portion of said base being circumferentially recessed to provide a seat for the lower end of the hood, and the extreme periphery of the base having an upwardly extending flange of less height than the central portion of the base and disposed outwardly of the hood.

1,416,528. ESCAPEMENT MECHANISM. EDWARD TROST, Jacksonville, Fla. Filed Feb. 10, 1920. Serial No. 357,496. 2 Claims. (Cl. 58—122.)



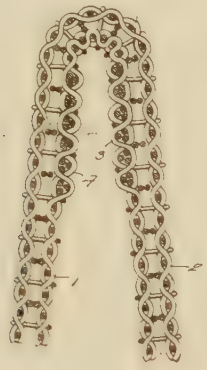
1. An escapement mechanism having in combination with the balance staff and escapement wheel, an escapement lever provided at its free end with a fork and having an intermediate yoke, a roller table carried by the balance staff and having an impulse pin for engagement by said fork, a safety roller carried by the balance staff in the plane of the yoke of the escapement lever, and a safety pin carried by the escapement lever for traversing a safety notch in the said roller.

1,416,529. INDEX TAB. ROY J. TURNER, San Francisco, Calif., assignor to Efficiency File Co., Chicago, Ill., a Copartnership. Filed Nov. 7, 1921. Serial No. 513,483. 3 Claims. (Cl. 40—23.)



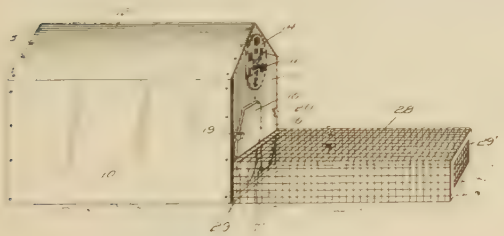
1. An index tab of the character described, comprising a strip of flexible transparent material bent upon itself so as to form a channel and a strip of backing secured to each loose edge of the channel and extending to within close proximity of the back of the channel so as to form a saddle adapted to cooperate with the back of the channel in supporting an insert.

1,416,530. SOFT TURNDOWN COLLAR. FRANK B. TWINING, Troy, N. Y., assignor to Geo. P. Ide & Company, Inc., Troy, N. Y., a Corporation of New York. Filed Aug. 19, 1921. Serial No. 493,561. 4 Claims. (Cl. 139—9.)



1. A folding collar or cuff, woven in one piece, made up of a neck band and a top portion and a thickened portion on each side of the folding line of the collar defining the folding line.

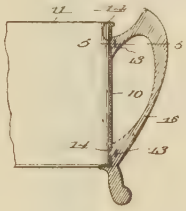
1,416,531. COOP AND FEEDING PARK THEREFOR. RALPH B. ULLOM, Urbana, Ind., assignor to The Cyclone Manufacturing Company, Urbana, Ind. Filed Apr. 1, 1921. Serial No. 457,739. 8 Claims. (Cl. 119—19.)



1. A coop comprising a body portion of sheet metal open at its lower side, inturned flanges formed at the opposite lower edges of the side walls of the body portion, channeled beads formed at the opposite lower edges of the front and rear walls of the body portion, a bottom portion of sheet metal having a centrally and upwardly depressed portion adapted for insertion into the lower open side of the body portion, flanges formed at the opposite sides and ends of the depressed portion of the bottom portion and adapted for interlocking engagement with the flanges and beads of the body portion, and a feeding park engaging the channeled bead of the front wall of the coop and enclosing the exit opening leading therefrom.

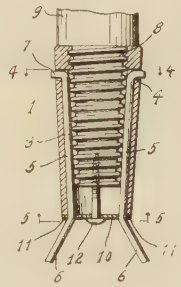
1,416,532. METHOD OF ATTACHING HANDLES AND THE LIKE. UMBERTO A. VALENTE, Brooklyn, N. Y. Filed May 21, 1920. Serial No. 383,186. 2 Claims. (Cl. 22—203.)

1. A method of casting by means of which one metallic object is to be connected to a second object characterized by employing upstruck means on the last named object, and subsequently attaching a mold to said object, which mold will engage the same at points adjacent the points



of disposition of the upstruck means, and in pouring fluid metal into said mold to cause said metal to engage said upstruck means.

1,416,533. BROOM AND BRUSH HANDLE. GEORGE M. WATTERS and WINFRED A. BROWN, Minneapolis, Minn. Filed Feb. 5, 1920. Serial No. 356,489. 1 Claim. (Cl. 306—30.)

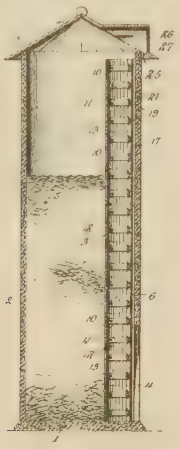


In a structure of the character described, a handle having a reduced end portion provided with relatively coarse threads, a sleeve fitting upon the reduced end of said handle and having threads engaging the threads of the handle, the sleeve having longitudinally extending grooves cut from its inner face to a greater depth than its threads and terminating at their upper ends in passages extending through the sleeve, a pair of arms adapted to carry a cleaner having their end portions extending through the grooves and terminating in outstanding finger extensions positioned in the passages of the sleeve, a plate fitting against the end of said sleeve and provided with side notches receiving said arms and serving to close the end of the sleeve and hold said arms against movement towards each other out of the grooves of the sleeve, and a securing screw passing through an opening in said plate and screwed into the end of said handle, the screw having relatively fine threads whereby the handle may not be unscrewed from the socket until the screw is removed and will not of itself come unscrewed.

1,416,534. SILO. GEORGE WILBUR WETZEL, Macombe, Ill. Filed Apr. 28, 1921. Serial No. 465,295. 14 Claims. (Cl. 20—1.42.)

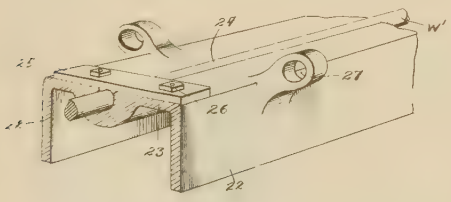
1. A silo, comprising an outer wall, an opening in said

wall, and an inwardly swinging door for said opening comprising a series of sections hingedly mounted on and



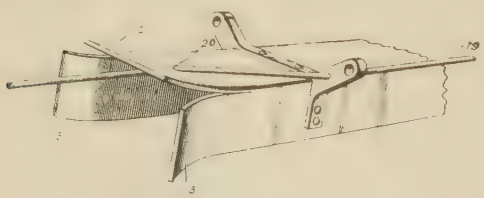
cooperating with the wall of the silo to form an auxiliary chamber within the silo.

1,416,535. TROLLEY GUARD FOR TUNNELS. CYRUS T. WHALEY, Norfolk, Va. Filed Oct. 17, 1921. Serial No. 508,052. 3 Claims. (Cl. 191—35.)



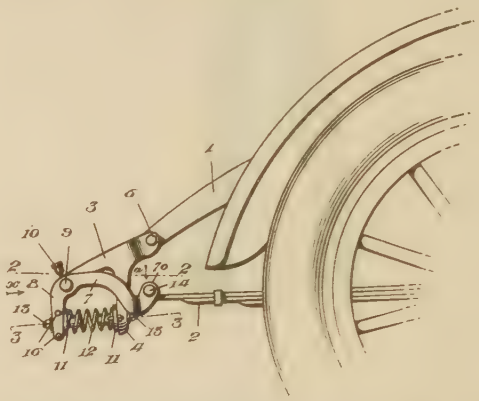
2. In a device of the kind described, a guard member consisting of an inverted channel having its sides spaced to receive a trolley wheel between them, the web of the channel being downwardly concave between said sides to provide contact means for the flanges of the trolley wheel, the upper face of said web being provided with a longitudinal trough to receive a trolley wire, and means to hold the wire within the trough and to provide supporting wire attaching elements.

1,416,536. TROLLEY GUARD FOR TUNNELS. CYRUS T. WHALEY, Norfolk, Va. Filed Oct. 17, 1921. Serial No. 508,055. 3 Claims. (Cl. 191—35.)



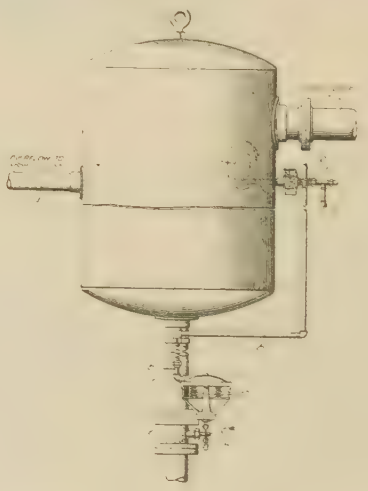
3. A trolley guide of the class described comprising an inverted U-shaped trough, bracket supporting said trough of inverted U-shaped and engaging the sides and top of the trough, and lugs projecting from said bracket and provided with terminal eyes for the reception of suspension wires, one of said lugs on each bracket being further provided with an opening for the reception of a feeder wire, the inlet end of said trough having its top flaring upwardly and provided with an opening for the reception of the wire and having its sides flaring outwardly, the outlet end of said trough having its top projecting beyond the sides and having the corners of the top turned downwardly to guide the trolley on said wire.

1,416,537. SHOCK ABSORBER. CHARLES A. WIBERG, Duluth, Minn. Filed Nov. 27, 1920. Serial No. 426,742. 3 Claims. (Cl. 267—17.)



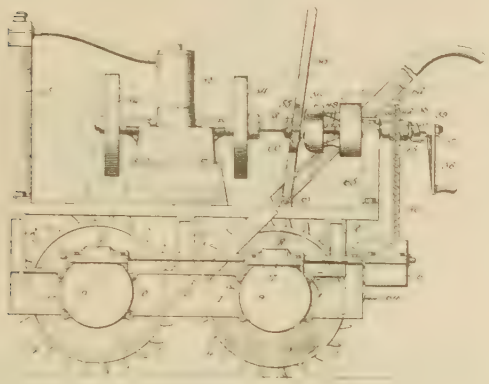
1. In a spring suspension for vehicles, the combination with opposing shock absorbing members of the vehicle; of a pair of opposing bell crank levers pivotally connected to each other, one of the said levers being pivotally joined at the inner end of one of the shock absorbing members of the vehicle and the other lever pivotally joined at the corresponding end of the other shock absorbing member of the vehicle, the two bell crank levers having oppositely horizontally disposed seats and a horizontally disposed shock absorbing spring sustained at its opposite ends on the aforesaid oppositely disposed seats, the said spring tending to move the opposing levers on their end pivots.

1,416,538. SEPARATOR FOR BOILER-WASHING SYSTEMS. FRANK S. WICHMAN, Chicago, Ill. Filed Sept. 12, 1919. Serial No. 323,446. 10 Claims. (Cl. 210—54.)



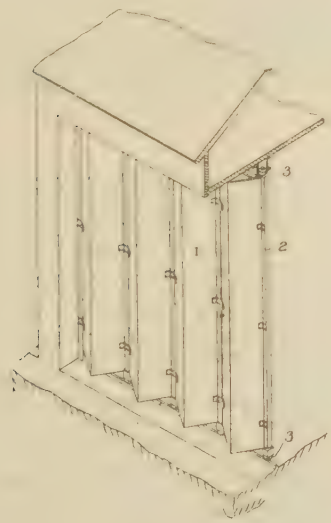
1. In a separator for boiler washing systems, adapted to separate sludge from water, a discard pipe, a normally open closure for said discard pipe, means delivering water to be separated, and means actuated by the presence of such water, adapted to actuate said closure to arrest delivery to such discard pipe.

1,416,539. TRACTOR. WILLIAM GEORGE WILMS, San Pedro, Calif. Filed July 26, 1921. Serial No. 487,578. 8 Claims. (Cl. 180—19.)



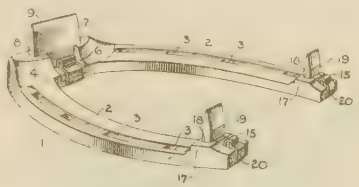
1. In a tractor, a frame, axles rotatably mounted transversely of the frame, traction wheels secured to the axles within the frame, a gear rigidly mounted on each axle beyond the collars of the longitudinal side of the frame, a shaft rotatably mounted on the frame and provided with spaced worm gears, said gears and shaft being located beyond the side of the frame, each worm gear being adapted to mesh with a gear on the axle, an engine mounted on the frame, a shaft driven by the engine, and a chain connection between the drive shaft of the engine and the worm shaft.

1,416,540. FOLDING DOOR, PARTITION, AND WALL. HERBERT WOOLARD, Stevenage, and JOHN HENRY FREDERICK LODGE, New Barnet, England; Clara Annie Lodge, being administratrix of said John Henry Frederick Lodge, deceased. Filed Oct. 21, 1918. Serial No. 259,131. 3 Claims. (Cl. 20—20.)



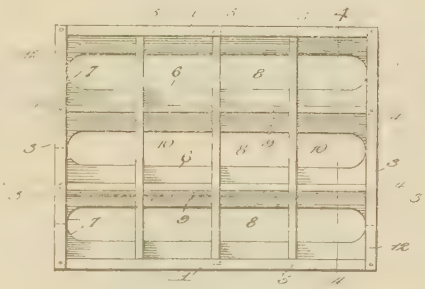
1. A sliding and folding door, screen or partition comprising a frame, a plurality of movable uprights carried by said frame, hinged pairs of leaves adapted to fold upon each other and hinged to and supported by said uprights, stays comprising bar members hinged together and arranged between and attached to each pair of uprights and adapted, when extended into alinement, to hold the pairs of leaves between each pair of uprights inclined in opposite directions to the general plane of the door, the line of stays extending throughout the door section.

1,416,541. HORSESHOE. FREDERICK D. YOUNG, Hollidaysburg, Pa. Filed June 30, 1921. Serial No. 481,623. 6 Claims. (Cl. 168—33.)



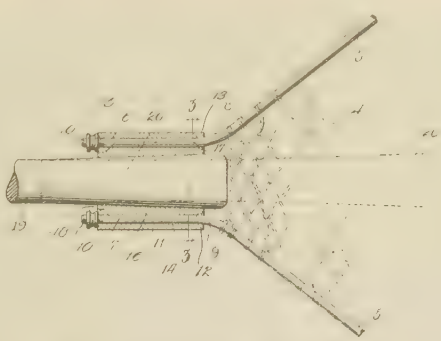
1. A horseshoe having on its underside an enlargement or boss provided with a cavity therein, and a cut-away portion communicating with the cavity, a calk seated in said cavity and having an extension to fit said cut away portion, and a clip adapted to engage respectively the shoe and said extension to hold the calk in place.

1,416,542. MILK BOX. WALTER C. YOUNG, Brooklyn, N. Y. Filed Dec. 4, 1920. Serial No. 428,337. 3 Claims. (Cl. 217—22.)



1. In a device of the class described, the combination of end boards provided with mortices extended part way up the inner sides thereof, dowel bars seated therein, side-boards having mortices formed therein, punch boards in the mortices in said side boards and bottom slats extended completely across the bottom of each of said end boards and cut away therebetween so as to provide washing apertures.

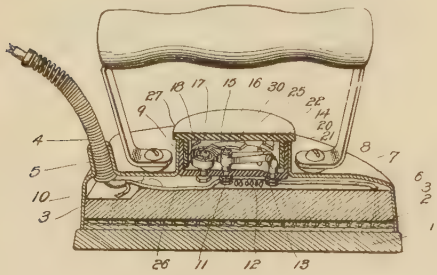
1,416,543. LANDING NET. FRANK BARTOS, Helena, Mont., assignor of one-half to Shirley C. Ashby, Jr., Helena, Mont. Filed Oct. 7, 1920. Serial No. 415,436. 2 Claims. (Cl. 43—12.)



2. In a net in combination with a net hoop, a casting having a tapered bore, a pair of cars formed on said

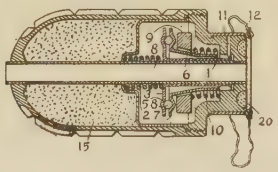
casting, said ears having engaging means for the terminal ends of said hoop, means for removably securing said hoop ends to said ears, and a handle correspondingly tapered to the casting bore to removably engage the same.

1,416,544. HEAT-CONTROLLING DEVICE. RICHARD G. BARZEN, Kansas City, Mo. Filed Mar. 30, 1921. Serial No. 456,950. 4 Claims. (Cl. 219—25.)



1. An electric iron having an electric heating circuit, a thermostatically operated circuit breaker in the circuit and movable in response to heat generated in the iron, and means for variably exposing the thermostat to atmosphere whereby the thermostat may operate at different degrees of heat within the iron.

1,416,545. COMBINED RIFLE GRENADE AND HAND GRENADE. FRIDTJOF NIELSEN BRONDBY, Christiania, Norway, assignor to A/S Perkussion, Christiania, Norway. Filed Mar. 2, 1920. Serial No. 362,668. 12 Claims. (Cl. 102—29.)



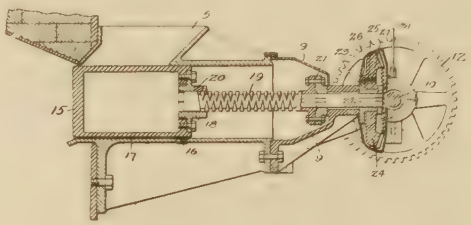
1. In a grenade, the combination of a sliding firing member provided at one end with a flange, and an actuating member therefor comprising a body portion loosely surrounding and capable of transverse movement in respect to the firing member and having a flange co-acting with the flange on the firing member on firing, whereby a transverse movement of the flange on the actuating member effects a longitudinal movement of the firing member.

1,416,546. UTILIZING COAL SLIMES. HEINRICH BRUNE and HEINZ HORST, Frankfort-on-the-Main, Germany, assignors to The Corporation of Gesellschaft für Maschinelle Druckentwässerung mit beschrankter Haftung, at Uerdingen, Niederrhein, Germany. Filed June 30, 1920. Serial No. 393,212. 1 Claim. (Cl. 44—10.)

The process of preparing fuel which consists in mixing fluid coal slimes with coke breeze before the slimes have settled and then expressing the water from the mixture.

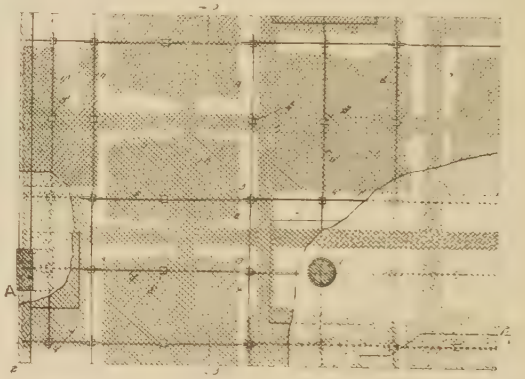
1,416,547. OPERATING MECHANISM FOR AUTOMATIC STOKERS. EVERETT B. BRYANT, Philadelphia, Pa., assignor to American Engineering Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 11, 1919. Serial No. 310,237. 2 Claims. (Cl. 110—44.)

2. The combination in an underfeed stoker of a retort; a ram chamber connected thereto and communicating therewith; a ram in said chamber; a bearing on said ram; a diamond screw operative in the bearing; a swivel nut mounted in said bearing with a portion projecting into and in engagement with the diamond screw and free



to oscillate in the bearing to permit it to follow the threads of said screw; means at the ends of the screw to cause reversal of the direction of movement of the bearing and ram; and means for rotating the screw to cause it to reciprocate the ram through the agency of the nut.

1,416,548. REENFORCING CONCRETE STRUCTURES. JOSEPH DI STASIO, New York, N. Y. Filed June 14, 1920. Serial No. 388,939. 4 Claims. (Cl. 72—71.)

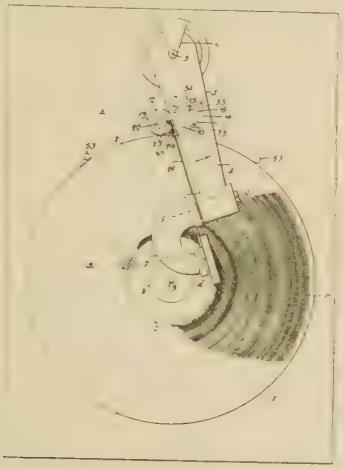


1. A flat slab floor construction, comprising a series of columns arranged in rows, adjacent columns forming bays therebetween and a bay central of each set of four columns, bands of metallic reenforcing mesh of a width substantially equal to said bays laid at right angles to each other and extending over the column heads and the bays between and in line with said column heads, said bands being depressed in such bays, and superposed bands of metallic mesh of a width substantially equal to the bays laid at right angles to each other and the first laid bands and extending over the bays which are central of each set of four columns.

1,416,549. TALKING MACHINE. VICTOR FEGLEY, Jersey City, N. J., assignor to Phonograph Control Corporation, Wilmington, Del., a Corporation of Delaware. Filed Nov. 22, 1919. Serial No. 339,842. 17 Claims. (Cl. 192—116.)

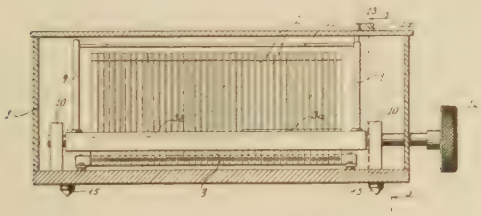
2. The combination in a talking machine, of a rotatable table; a record carried thereby having an abrupt curved groove beyond the end of the record groove; a tone arm carrying a stylus adapted to the grooves of the record; a pivoted brake lever; a rotatable brake member carried thereby, which is rotated by the table and also stops the

rotation of the table; and means, actuated by the rotatable brake member, for elevating the stylus clear of the



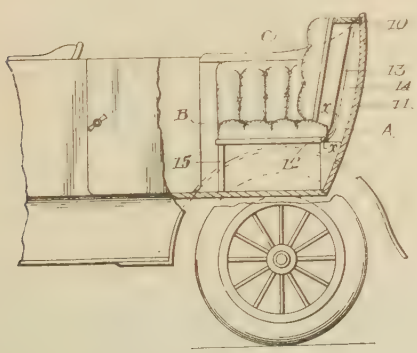
record when the stylus is traveling in the curved groove of the record.

1,416,550. VIBRATING REED INSTRUMENT. KARL GEORG FRANK, Wyoming, N. J. Filed Sept. 4, 1919. Serial No. 321,713. 2 Claims. (Cl. 73—51.)



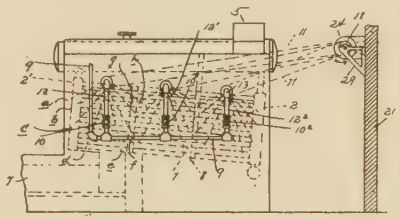
1. In a vibrating reed instrument of the character described, the combination with a group of reeds, arranged side by side and in alignment with each other, and a bail pivoted substantially in line with the foot of the reeds and adapted to swing over their free ends, means for adjusting the angular position of said bail to ascertain the amplitude of an oscillating reed, and a scale divided into suitable units, and located adjacent to one end of the bail for reading the value of said amplitude.

1,416,551. CONVERTIBLE AUTOMOBILE TONNEAU. LESLIE LOCKHART FULLER, Edmonton, Alberta, Canada. Filed May 19, 1921. Serial No. 470,828. 4 Claims. (Cl. 296—63.)



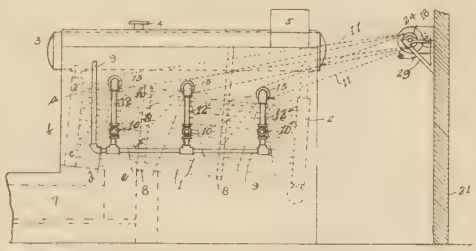
1. An automobile tonneau comprising a body portion, a back cushion supported from the body portion provided with a space behind it and between the body portion in which a bottom cushion may be stored, a bottom cushion and means for supporting the bottom cushion in such a way that it may be moved without detachment into position behind the back cushion.

1,416,552. BOILER CLEANER. CLAUDE M. GARLAND, Chicago, Ill. Original application filed Feb. 7, 1916, Serial No. 76,611. Divided and this application filed May 8, 1919, Serial No. 295,659. Renewed July 14, 1920. Serial No. 396,330. 2 Claims. (Cl. 122—392.)



2. The method of cleaning boiler parts of the accumulation of soot and like products of combustion, while preventing substantial decrease in the efficiency of the boiler between the periods of cleaning, which consists in determining the period in which the accumulation of soot deposits on the boiler parts will become materially deleterious to the efficiency of the boiler by incrustation on such parts, and then causing the delivery of a blast of steam over the boiler parts to be cleaned to forcibly remove the soot therefrom, and insuring that the delivery of the blast shall be at fixed and regular intervals less than that required for such deleterious accumulation to take place.

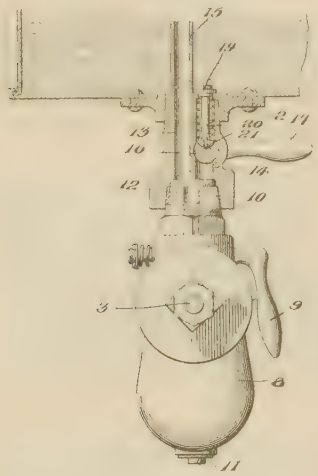
1,416,553. APPARATUS FOR BLOWING SOOT FROM THE TUBES OF BOILERS. CLAUDE M. GARLAND, Chicago, Ill. Filed Feb. 7, 1916, Serial No. 76,611. Renewed July 14, 1920. Serial No. 396,330. 16 Claims. (Cl. 122—392.)



1. In a soot blowing system comprising a main with a plurality of branches, means for producing the continuous discharge of the blowing medium in the form of puffs from the said branches at regular intervals, a plurality of lateral nozzles at the end of each branch and means for moving the said nozzles in synchronism with the said puffs.

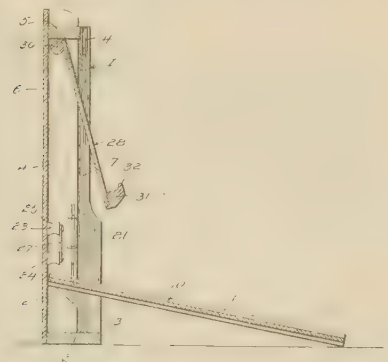
10. In a soot blowing system comprising a main with a plurality of branches, a solenoid operated valve in each of the said branches, a rotatable electrical contact means for each of the said solenoid operated valves, a rotatable nozzle pipe forming the terminus of each of the said branches and common means for rotating the said electrical contact means and the said nozzle pipes whereby steam is continuously discharged at regular intervals in the form of puffs from the said branches and the said nozzle pipes direct the said puffs to different portions of the heating surface to be cleaned.

1,416,554. RESERVE-SUPPLY TANK. FREDRICK E. GUBIN, Racine, Wis. Filed July 2, 1921. Serial No. 482,188. 12 Claims. (Cl. 158—46.5.)



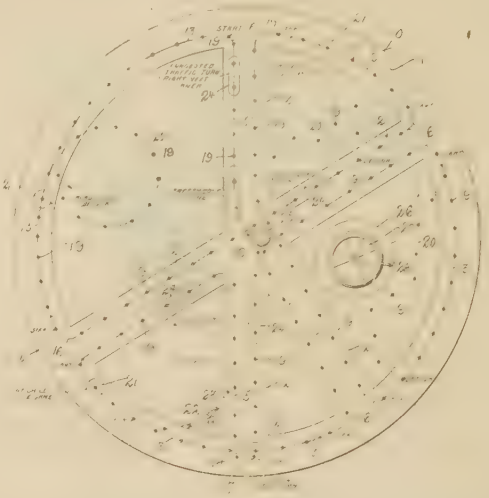
1. An outlet casing for a liquid fuel tank providing a reserve fuel duct having a fuel inlet opening vertically into the tank at the bottom thereof to draw reserve fuel therefrom, movable means normally covering said vertical inlet against entrance of sediment from the tank, said means being constructed to raise sediment on the tank bottom over said inlet when said means is moved to uncover the inlet for entrance of reserve fuel, and manually actuated means controlling the operative position of said movable means to cover and uncover said vertical inlet.

1,416,555. COMBINED BLACKBOARD AND DESK. CHARLES WM. HALL, Valparaiso, Ind. Filed Apr. 19, 1921. Serial No. 462,499. 4 Claims. (Cl. 45—51.)



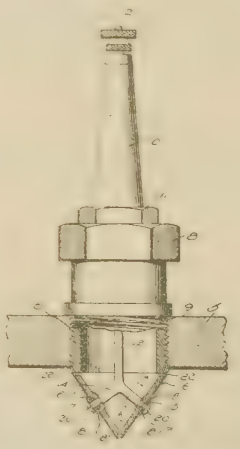
1. In an appliance of the class described, a cabinet closed except at its front, the side members of said cabinet being cutaway on their inner faces near their front edges throughout their entire length with abutments formed at the rear portions of said cutouts, said side members being also provided near their lower ends with recesses extending transversely and having the walls thereof inclined to provide guides and seats, a closure for said cabinet slidable in the cutout portions of the side members thereof, and means for locking said closure in closed position, said closure being adapted to swing laterally into the recesses at the lower ends of the side members when in open position and to be held by the walls of said recesses to adapt the closure for use as a desk.

1,416,556. GAME APPARATUS. HORATIO PAUL HARSHA, Detroit, Mich. Filed Nov. 15, 1920. Serial No. 424,095. 1 Claim. (Cl. 46—63.)



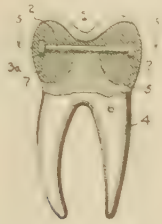
A game comprising a board having depicted thereon a circular outline and intersecting and communicating radial outlines, denoting streets, a street crossing and a roadway, a continuous main line upon said outlines crossing centrally of the board, and divided by marks uniformly spaced, one or more branch lines deflected from the main lines and connected at the ends thereto, figures at intervals on the main lines adapted to denote various traffic conditions, and a plurality of figures denoting counters to be moved over said lines.

1,416,557. SPARK PLUG. MARK B. HILL, Ticonderoga, N. Y. Filed May 4, 1921. Serial No. 466,656. 3 Claims. (Cl. 123—169.)



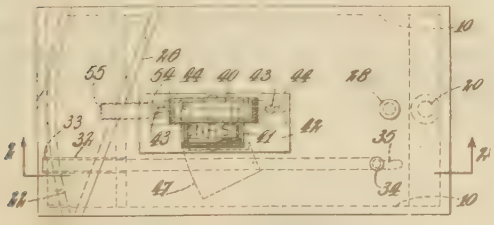
1. A spark plug comprising a shell, an electrode extending through the shell and having its forward portion formed with diverging branches having reduced spindles forming shoulders, and disks freely rotatable on said spindles and contacting with said shoulders, the edges of said disks being beveled and arranged in spaced relation to the end of the shell and in spaced relation to each other.

1,416,558. FILLING ANCHOR FOR TEETH AND PROCESS OF APPLYING SAME. Gustav Holtz, Gouldsboro, Pa. Filed Aug. 22, 1921. Serial No. 494,119. 2 Claims. (Cl. 32—22.)



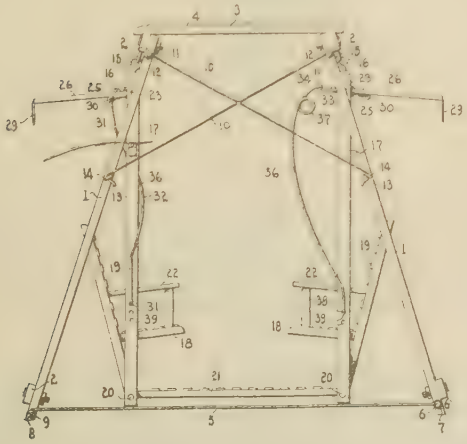
1. The process of filling extensive cavities in human teeth where the cavities reach through the body of the tooth, which consists in cleaning the cavity and enlarging it on opposite sides of the tooth and providing a connecting channel therebetween, and then lodging a double-headed anchor bar with the heads in the cavities and the intermediate part of the bar extending through the channel joining the cavities, and lodging filling in both the cavities and the connecting channels, and wholly embedding the anchor.

1,416,559. SAFETY AND MATCH BOX. Imre Horvath, Kenmore, Ohio. Filed May 5, 1921. Serial No. 466,958. 4 Claims. (Cl. 64—41.)



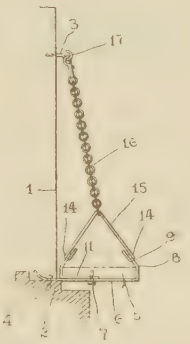
1. A safety box having a hinged cover, a plate hinged to said cover, a bolt operated by said plate and holding said cover locked, a second bolt holding said plate locked to said cover, and a rotatable and slidable disk for controlling said last bolt.

1,416,560. LAWN SWING. Leonidas R. Houchens, Washington, D. C. Filed Oct. 13, 1921. Serial No. 507,427. 6 Claims. (Cl. 155—64.)



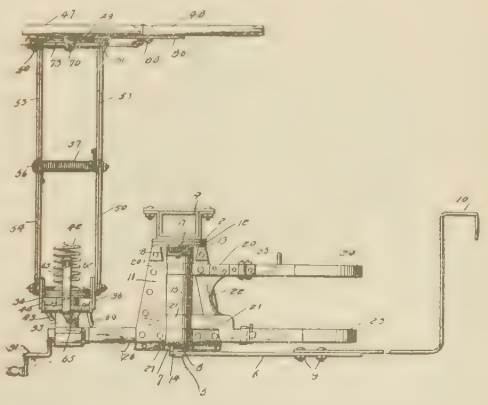
1. In a lawn swing, swing structures capable of simultaneous oscillation, a fan structure for each swing structure pendently mounted thereon at the upper portion of said swing structure, connecting rods individual to the fan structures for connecting the fan structures in operative relation with the swing structures, and means whereby the rods may connect each fan to the swing structure on which it is mounted to cause the fan structure to serve as a stationary sunshade.

1,416,561. AUXILIARY WINDOW SILL. Harold Johnson, Brooklyn, N. Y. Filed Oct. 1, 1921. Serial No. 504,555. 4 Claims. (Cl. 304—15.)



2. The combination, with a window casing and sill provided respectively with fixed engaging means, the sill engaging means being beaded bolts, of an auxiliary sill device comprising a board, straps secured thereto, angled rods each having its respective ends secured to the ends of one of said straps, suspension means whereby the device may be removably connected with the fixed casing engaging means and curved, extended strap portions having holes, with slot extensions to enter into removable, positive locking engagement with the bolts.

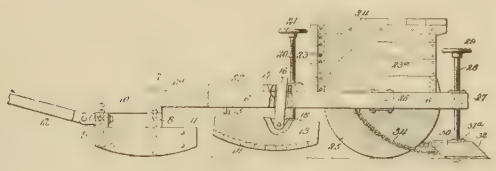
1,416,562. TABLE ATTACHMENT FOR BEDS. Stanislaw Kuczynski, Cleveland, Ohio, assignor of one-half to Wladyslawa Gruchacz, Cleveland, Ohio. Filed June 20, 1921. Serial No. 479,017. 14 Claims. (Cl. 45—82.)



8. A table attachment for beds comprising a mounting frame secured to the opposite rails of beds and including a vertical post, a plate journaled on said posts, cooperative means carried by said plate and post for holding the plate in rotatably adjusted positions, a sliding bar

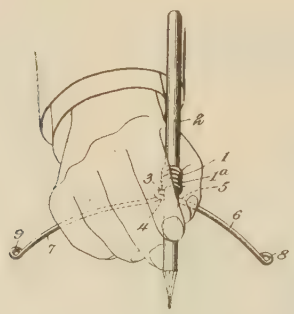
associated with said plate, a screw rod enclosed by said bar and having threaded connection with said plate, a table supported at the outer end of said rod, a post carried by the outer end of said rod, a table top supporting frame comprising a base section and an upper section with the base section rotatably adjustable upon said post, cooperating means carried by the base section and base for holding the frame in rotatably adjusted positions, said table supporting frame embodying a lazy tong construction connecting the upper and base sections, a pair of oppositely rotatable disks journaled on the upper section and associated with the lazy tong construction to effect rotation thereof during movement of the upper section, cooperative devices carried by the upper section and disks for holding the disks against rotation when the upper section is at its limit of upward movement, said cooperative devices including the peripheral notching of said disks and a tensioned latch supported on the upper section adapted to enter said notches when the upper section is at its limit of upward movement with the notches in alinement to prevent rotation of the disks and hold the upper section against movement.

1,416,563. SNOW LEVELER AND PACKER. JOHN MARTIN LE VALLEY, Ionia, Mich. Filed Oct. 6, 1920. Serial No. 415,184. 11 Claims. (Cl. 37—7.)



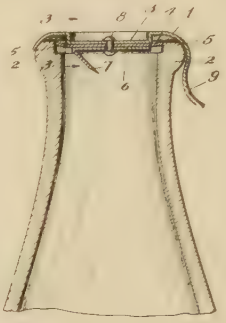
1. In combination, a frame, a sled pivotally mounted at the forward end of the frame for guiding the same, a packing roller supporting the frame, and a nonrotatable leveler or packer intermediate the roller and sled.

1,416,564. DEVICE FOR TEACHING PENMANSHIP. WILLIAM C. LOWE, Atlanta, Ga. Filed Mar. 7, 1921. Serial No. 450,223. 4 Claims. (Cl. 35—8.)



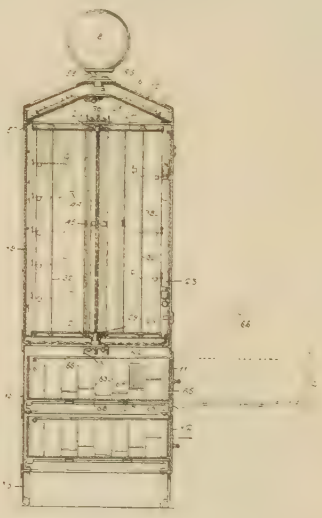
1. A device for teaching penmanship to be used with a pen or pencil, comprising an element to fit upon the pen or pencil and be retained thereon, and a pair of arms extending out from each side of said element adapted to support the hand of the writer and shaped at their ends to slide over the writing surface while writing, and forming with the pen or pencil a three-point bearing or contact with said surface.

1,416,565. SANITARY BOTTLE TOP. CHARLES LUSTGARTEN, Chicago, Ill. Filed Aug. 22, 1919, Serial No. 319,155. Renewed Sept. 22, 1921. Serial No. 502,512. 2 Claims. (Cl. 215—38.)



2. A bottle top or cap comprising a circular metal disk having its edges bent to conform with the curvature of the upper edge of the bottle, said disk having a centrally depressed portion, a resilient closure secured to the centrally depressed portion, said resilient closure being greater in diameter than the mouth of the bottle and being arranged to engage the narrow walls of the mouth of the bottle to hermetically seal the same, and an extension carried by said first named disk at one edge thereof, said extension serving as a lever for prying loose the resilient closure.

1,416,566. ADVERTISING AND DISPLAY CASE. HENRY R. MCCLEARY, New York, N. Y., assignor to Boorum & Pease Company, New York, N. Y., a Corporation of New York. Filed Oct. 28, 1921. Serial No. 511,052. 7 Claims. (Cl. 211—21.)

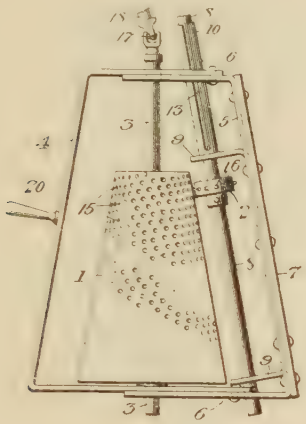


2. In a sales display case, a rotary display carrier comprising vertically arranged V-shaped sectional units of different radial depth, units of greater radial depth alternating with those of less radial depth, together with vertically spaced shelves in each unit sub-dividing the same into a series of shelf compartments.

1,416,567. SPEED-REGULATING DEVICE. WILLIAM PINKNEY MCNEEL, San Antonio, Tex. Filed Nov. 27, 1920. Serial No. 426,845. 3 Claims. (Cl. 74—58.)

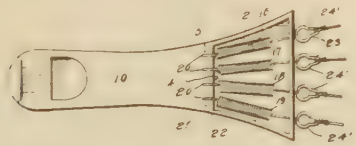
1. In a device of the character described, the combination with a driven shaft and a driving shaft, of a cone carried by the driven shaft, a disc or wheel secured to the driving shaft, holes or recesses spirally arranged

around the periphery of said cone in a uniform manner from end to end thereof, uniformly spaced spurs or pins mounted upon the periphery of said wheel adapted to engage with the holes or recesses in the cone for rotating said cone, and also providing means for automatically



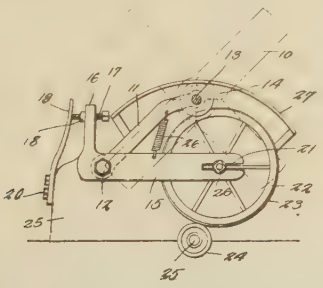
feeding the wheel along the cone, to cause a gradual increase or decrease in the speeds of the driven shaft, a sliding, telescoping connection between the spur wheel driving shaft and a main driving or power shaft, and means for swinging the cone into and out of engagement with the cooperating spur wheel.

1,416,568. MEANS FOR SECURING THE STRINGS OF MUSICAL INSTRUMENTS. LEANDRO MAZZOCCO, Lynn, Mass. Filed Aug. 24, 1920. Serial No. 405,777. 3 Claims. (Cl. 84—297.)



1. In combination with a tail piece of a musical instrument, a plurality of coil springs each having an eyelet, a securing pin common to said eyelets to connect the springs to the tail piece, and strings to which said springs are secured to function during action and when at rest.

1,416,569. AUTO ATTACHMENT. DELBERT W. MINNICH, Wadsworth, Ohio. Filed Jan. 28, 1920. Serial No. 354,712. 4 Claims. (Cl. 74—26.)

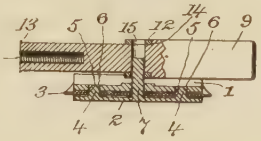


1. In an automobile attachment, a frame; a rotatable drive member journaled on the frame; supports pivoted to the frame for movement with respect to each other and with respect to the frame; a rotatable member journaled on each support; a spring connection between the supports and holding the rotatable members in engagement; a fan operatively connected with the rotatable member of one support; and means cooperating with the other support to hold the rotatable member of said other support in engagement with the rotatable drive member.

1,416,570. RADIATOR CORE. ARTHUR B. MODINE, Chicago, Ill. Filed Jan. 22, 1918. Serial No. 213,265. 1 Claim. (Cl. 257—129.)

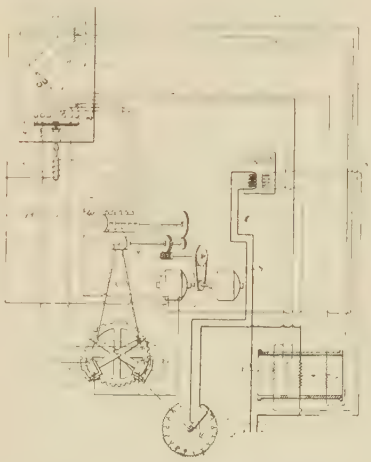
A radiator, comprising suitable headers and a plurality of substantially vertical water conducting tubes, a plurality of transversely corrugated plates interposed between the headers and surrounding the tubes, each plate having a plurality of alternately upwardly and downwardly struckup air deflecting projections positioned adjacent the tubes and arranged at an angle lateral to the normal direction of the air passing through the plates.

1,416,571. SAFETY RAZOR. THOMAS FRANCIS MURPHY, New York, N. Y. Filed Jan. 8, 1921. Serial No. 435,986. 5 Claims. (Cl. 30—12.)



1. An adjustable handle connection for a safety razor blade holder comprising a trunnioned guide on the holder loosely encircling the handle, which latter is free to rotate and slide therein.

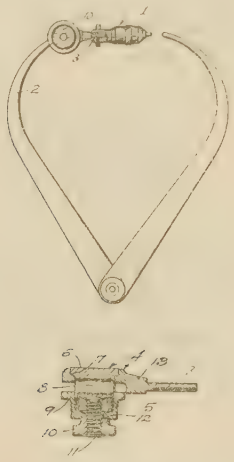
1,416,572. FLUID METER. HORACE N. PACKARD, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 27, 1918. Serial No. 225,020. 15 Claims. (Cl. 219—63.)



1. In apparatus for proportioning the flow of fluids, the combination with electrothermic flow controlling

means, of a mechanically variable temperature difference resistance to act upon said controlling means for varying the control effected thereby.

1,416,573. MICROMETER ATTACHMENT. JAMES A. OBOLE, Torrance, Calif. Filed June 2, 1920. Serial No. 385,989. 4 Claims. (Cl. 33—149.)



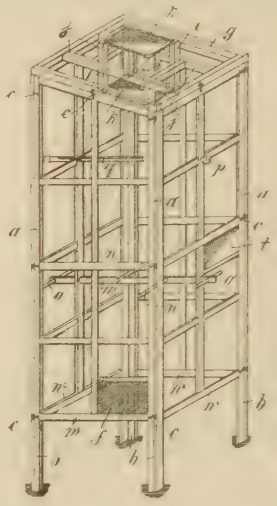
1. A micrometer attachment comprising a clamping annulus having a shank projecting therefrom and arranged to have a micrometer mounted thereon, a clamping rod having said clamping annulus journaled thereon and adapted to engage an instrument arm, and a second clamping member adjustable along said clamping rod for clamping the micrometer attachment in pivotally adjusted positions with relation to the instrument arm.

1,416,574. OIL AND GAS BURNER. WILLIAM M. ONEY, Houston, Tex. Filed May 20, 1920. Serial No. 382,843. 15 Claims. (Cl. 158—75.)

9. In a burner, a stationary shell having a fuel inlet, a burner casing, within the shell having a fuel inlet port, means for rotating said casing, so as to bring said port alternatively into and out of registration with said inlet, a fuel pipe extending through the casing and provided with a port and means for moving said fuel pipe lengthwise so as to bring said ports into and out of registration.

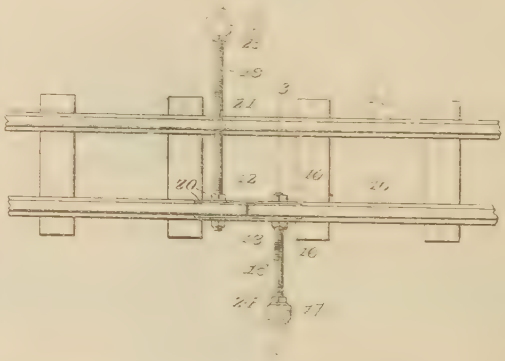
1,416,575. INSULATING CASE FOR SEED-BREEDING AND INFECTION PURPOSES. MENKO PLAUT, Halberstadt, Germany, assignor to Firm of: August Knoche-Wallwitz, G. m. b. H., Halberstadt, Germany. Filed Sept. 18, 1920. Serial No. 411,302. 2 Claims. (Cl. 47—39.)

1. In an insulating-case for seed-breeding and infection purposes, in combination, detachably connected pergamin-covered side-walls formed of wooden frames, an oblique roof covered with oil-paper and detachably connected with said side-walls, a mull-covered ventilation-shaft in the middle of said roof extending with one half below and with the other half above said roof, a glass-sash at the top and at the bottom of said shaft, a multiply mull-



covered opening at the bottom end of one of said side-walls, and an inspection-window in one of said side-walls, substantially as and for the purpose set forth.

1,416,576. RAILWAY RAIL ANCHOR. GRILLS A. PRATHER, Milliken, Colo. Filed Sept. 29, 1921. Serial No. 504,114. 1 Claim. (Cl. 238—315.)



The combination with the rails of a railway, and the splice bar of the joint thereof, of a pair of bars threaded at their opposite ends, each of said bars being disposed through certain of the bolt openings of the splice bar and rail, one of the said bars extending through the opposite rail of the railway and having its other threaded end secured in an anchor member, the other bar extending toward the other side of the railway and having its other threaded end secured in an anchor member, the said splice bar ends of the said bolts being arranged to serve as the bolts of the rail joint.

1,416,577. CAN OPENER AND SEALER. JOSEPH E. RELLER and WILLIAM KRECKER, Long Beach, Calif.; said Krecker assignor to said Reller. Filed Feb. 25, 1920. Serial No. 361,337. 1 Claim. (Cl. 220—51.)

A can puncturing and puncture closing device, comprising a plate, a pair of puncturing members projecting from the under side of said plate, a pair of spaced ears formed integral with and depending from one end of said

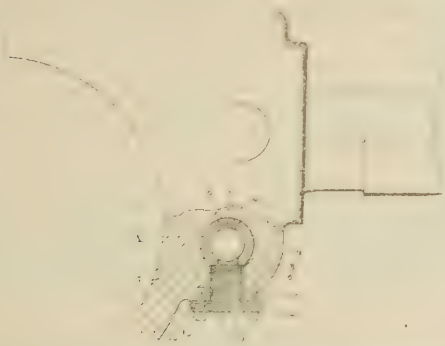
plate to facilitate the positioning of the device on a can, and a perforated member projecting from the end of the

plate between said ears, which perforated member provides means whereby the device may be suspended from a suitable support while not in use.

1,416,578. WHEEL PULLER. MYRL M. SAUERS, Santa Cruz, Calif. Filed Feb. 19, 1921. Serial No. 446,329. 1 Claim. (Cl. 29—85.)

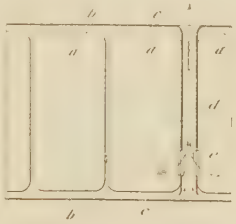
A wheel puller including, a bushing provided with external and internal threads thereon and adapted to be positioned on the hub of a vehicle wheel, a casing having threaded engagement with said bushing, and an axle forcing screw entering said casing and adapted to receive blows and impart the force thereof to the end of the axle of the wheel to be pulled.

1,416,579. INDICATOR OF STRIPPED THREADS. LAWRENCE LEE SCHAUER, Cincinnati, Ohio, assignor to The Cincinnati Bickford Tool Company, Cincinnati, Ohio, a Corporation of Ohio. Filed July 9, 1921. Serial No. 483,629. 9 Claims. (Cl. 116—114.)



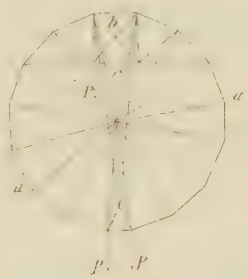
3. A wear-exhibiting instrumentality comprising a member; a screw and a complete nut arranged to be relatively rotated to elevate said member; and an auxiliary element mounted in rigid relation with said nut to be movable in fixed relation therewith, said element providing an arcuate face in threaded engagement with said screw and adapted readily to be detached from said screw to afford an inspection of its arcuate face to enable the extent of wear of the threads of said nut to be ascertained.

1,416,580. AIRSHIP. JOHANN SCHUETTE, Zeesen-Koenigs-Wusterhausen, near Berlin, Germany. Filed Apr. 25, 1919. Serial No. 292,765. 6 Claims. (Cl. 244—3.)



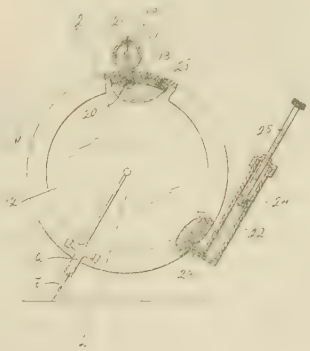
1. In an airship of the rigid type, the combination of gas cells, valves for the gas cells; and a flue into which an air space adjacent the lower end of said flue said valves open, said flue extending upwardly through the ship and communicating freely with the atmosphere at its upper end and having its lower end open to said air space.

1,416,581. AIRSHIP. JOHANN SCHUETTE, Zeesen-Koenigs-Wusterhausen, near Berlin, Germany. Filed Apr. 25, 1919. Serial No. 292,768. 7 Claims. (Cl. 244—3.)



1. A frame work for airships of the rigid type comprising longitudinal beams; rings connected to said longitudinal beams to maintain the same in proper position; and load carrying means comprising trellis work having beams connected to a ring at a plurality of points for distributing a load over a pre-determined section of said ring.

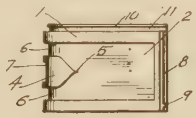
1,416,582. PHONOGRAPHIC SOUND BOX. DAVID A. SEALEY, East Orange, N. J. Filed Jan. 21, 1920. Serial No. 352,989. 9 Claims. (Cl. 274—35.)



1. A phonographic sound box having a body, two diaphragms spaced from and disconnected from each other,

the space between said diaphragms containing a liquid adapted to transmit the vibrations of one diaphragm to the other, and manually adjustable means permanently connected to the sound box for exerting more or less pressure on said material.

1,416,583. ROOFING TILE. JOSEPH SEILER and EMIL REIFF, Los Angeles, Calif. Filed Aug. 17, 1920. Serial No. 404,121. 1 Claim. (Cl. 108—10.)

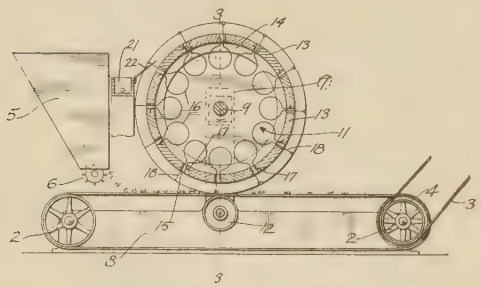


A roofing tile comprising a substantially rectangular-shaped body, one end of which is formed with a downwardly curved lip, a U-shaped rib formed on the upper side of the body, a projection on the upper side of the body between the free ends of the rib, said projection having one end recessed and its opposite end tapered, ribs up standing from the upper side of the body and disposed in spaced relation to the U-shaped rib to provide grooves at one side and one end of the body, transverse ribs on the under side of the body adjacent the opposite ends thereof, longitudinally extending ribs on the under side of the body connecting the transverse ribs and having portions thereof tapered, lugs on the under side of the body at that end remote from the projection end, a groove along one longitudinal edge of the body at the under side thereof, and a second groove extending transversely of the under side of the body between said lugs.

1,416,584. METHOD OF PRESERVING ELECTRIC-FURNACE LININGS. HUGH C. SICARD, Buffalo, N. Y., assignor to United States Ferro Alloys Corporation, New York, N. Y., a Corporation of New York. Filed Feb. 12, 1920. Serial No. 358,211. 8 Claims. (Cl. 204—63.)

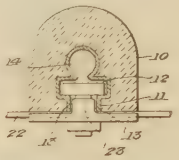
1. A method of preserving electric furnace linings comprising the formation of a titanic oxide furnace lining and then smelting in the furnace a mixture composed of a titaniferous ore and metallic ore.

1,416,585. SEPARATOR FOR NUT MEATS FROM BROKEN NUTS. ARTHUR STABLES, Los Angeles, Calif. Filed Mar. 31, 1921. Serial No. 457,179. 5 Claims. (Cl. 130—32.)



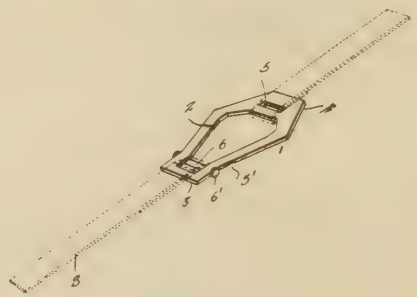
1. In a nut meat separator, the combination with an endless carrier, of a hollow cylindrical member arranged for rotation above said endless carrier, the wall of which cylindrical member is perforated, and a series of nut meat engaging members arranged within said hollow cylinder, each of which members comprises a spring loop, one end of which is secured to the wall of the cylinder and the opposite end portion extending through one of the perforations in the rotatable member, and the outer end of said outwardly extending end portion being pointed so as to engage nut meats on the endless carrier.

1,416,586. POST. JOHN WILLIAM STALDER, Lincoln, Nebr. Filed May 16, 1921. Serial No. 469,906. 3 Claims. (Cl. 72—82.)



1. A post formed of cementitious material and provided with a groove extending longitudinally along one face thereof, an entrance passage extending therefrom, the walls of said passage lying within and forming the walls of the longitudinally extending groove and a cable passage upon the side of the rectangular portion opposite the groove, inwardly extending longitudinally disposed staced ribs located at the intersection of the rectangular portion and cable passage and providing restricted communication therebetween and headed fastening devices engageable in said groove.

1,416,587. BALE TIE. JOHN F. STAUFFER and JAMES F. ROWLAND, Tutwiler, Miss. Filed Aug. 1, 1921. Serial No. 488,957. 2 Claims. (Cl. 24—21.)



1. A cotton tie buckle comprising a flat plate having a Y-shaped opening therethrough, and a slot inward of the opening adjacent to one of the ends of the plate and the said slot being disposed opposite the wider end of the opening, a tie strap designed to be passed through the Y-shaped opening beneath the plate and through the slot therein and to be arranged around a bale, a headed pin normally received in the Y-shaped opening and designed to be engaged by the opposite end of the strap or band, when the latter is inserted through the Y-shaped opening whereby the pressure of the bale against said band will force the pin toward the restricted passage of the Y-shaped opening and arrange the pin under the plate and the heads thereon in contacting engagement with the edges of the plate.

1,416,588. FOOD. BENJAMIN F. SWEZEY, Buffalo, Minn. Filed Sept. 30, 1920. Serial No. 413,767. 5 Claims. (Cl. 99—10.)

1. The process of preparing a cereal food consisting in roasting grain kernels and thereafter agitating said grain kernels to render the same brittle.

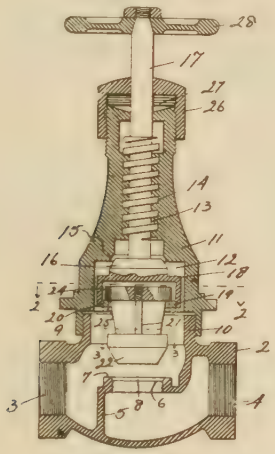
1,416,589. TRANSFER CAR. WILLIAM W. WALLACE, Chicago, Ill., assignor to Raymond C. Penfield, Chicago, Ill. Filed Nov. 6, 1918. Serial No. 261,351. 1 Claim. (Cl. 105—177.)

A brick carrying car of the kind described, having a plurality of sets of wheels arranged angularly with re-

lation to each other, means to bring a predetermined set of said wheels into operative position to support the car,

and a plurality of spaced supports on the car deck to cooperate with mechanical setting devices for loading and unloading a unit stack of brick on the car.

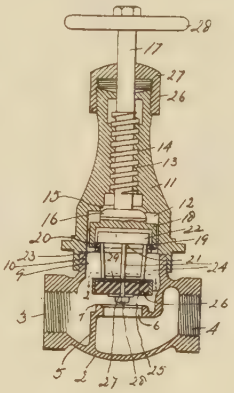
1,416,590. VALVE. HARRY WILHELMS, Philadelphia, Pa. Filed Feb. 2, 1921. Serial No. 441,753. 2 Claims. (Cl. 251—46.)



1. A valve comprising a valve body, a partition within said body, a valve seat formed with said partition having a flat surface and a beveled inner surface, a valve stem casing detachably connected with said body, said casing having a chamber at its inner end and a longitudinal threaded valve stem opening therethrough communicating with said chamber, a seat formed in said casing between said chamber and the valve stem opening, a threaded valve stem mounted in the valve stem opening, a hand wheel on the outer end thereof, a sealing member formed with the inner end of said stem for coaction with said seat, an integral housing formed with said sealing member, a valve member, comprising a valve cone, a body formed of radiating ribs and a head, said head registering with the aforementioned housing, a retaining ring mounted in said housing for loosely maintaining the head of the valve member in said housing, and a cap on the outer end of the valve stem housing.

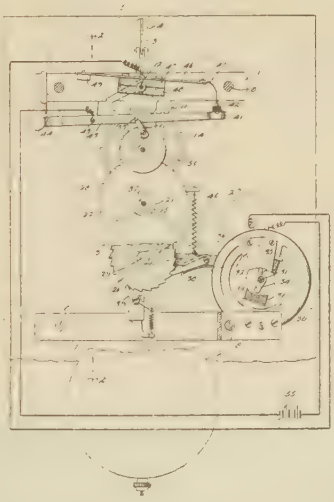
1,416,591. VALVE. HARRY WILHELMS, Philadelphia, Pa. Original application filed Feb. 2, 1921, Serial No. 441,753. Divided and this application filed Feb. 16, 1922. Serial No. 536,906. 1 Claim. (Cl. 251—46.)

A valve consisting of a valve body, a partition in said body, a valve seat formed with said partition and having an arcuate upper edge, a valve stem casing detachably connected with said body, said casing having a chamber at its inner end and a longitudinal valve stem opening communicating with said chamber, a seat formed in the casing between the chamber and valve stem opening, a valve stem passing through said opening, a sealing member formed with said stem and adapted to engage said seat when the valve stem is moved outward, an integral housing formed with the inner end of the valve stem, the open end of said housing being internally threaded, a head located in said housing, a retaining ring having



external threads for screwing the same into the housing to loosely hold said head within said housing, lugs on said ring whereby the same may be rotated, spaced ribs formed with said head converging toward their lower ends, a disc enclosure formed with the lower ends of said ribs, a pin projecting from the center of said disc enclosure, a compressible disc mounted on said pin within the enclosure, means engaging said pin for holding the compressible disc in place, said disc adapted to engage the valve seat when the valve stem is moved inward, and a cap on the outer end of the valve stem casing.

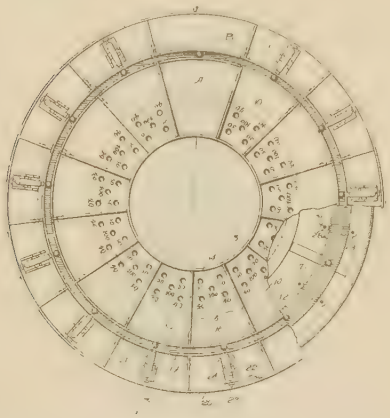
1,416,592. CLOCK-CIRCUIT-CONTROL DEVICE. GEORGE A. ALBRIGHT, Atlanta, Ga. Filed Feb. 4, 1920. Serial No. 356,314. 7 Claims. (Cl. 58—41.)



7. An electric circuit control for a time indicating device including means to operate said time indicating device, a pair of electric contacts, one continuously oscillating, and the other periodically actuated and brought into contact with the oscillating contact thereby pro-

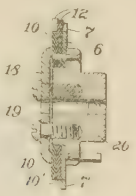
viding energy for said time device operating means, said periodically actuated contact comprising a mercury cup into which the oscillating contact immerses.

1,416,593. GAME APPARATUS. Arthur Alexander, Brooklyn, N. Y. Filed Nov. 22, 1920. Serial No. 425,849. 1 Claim. (Cl. 46—57.)



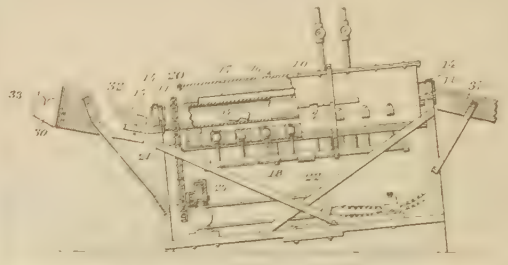
An apparatus of the class described including a table, a structure adjacent to said table at which players may station themselves, said structure and table being spaced to present a slot therebetween, shooters mounted on said structure and disposed toward the table, a traveling target carrier in the form of a flat ring beneath and forming a closure of said slot, said ring extending beneath both the said structure and said table, and rollers on the table and on said structure at the under side, on which rollers the said ring is supported at each side laterally of said slot, and target supports on said carrier between the table and said structure adapted to receive targets for carrying the targets past the shooters between said shooters and the table, said shooters adapted to be projected into the path of movement of the targets for dislodging the latter.

1,416,594. CALL-BOX TRANSMITTER. Albert Atherton, New Brunswick, N. J., assignor to The Western Union Telegraph Company, New York, N. Y., a Corporation of New York. Filed July 2, 1920. Serial No. 393,588. 2 Claims. (Cl. 177—378.)



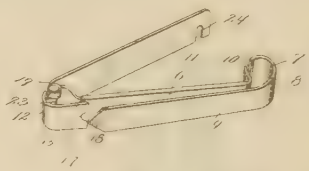
1. In a signal transmitter having a toothed break wheel and contact pens adapted to engage the periphery of the exposed teeth of said wheel as it is rotated, an insulating element comprising a plurality of like disks of greater diameter than said wheel, each provided with a series of frangible peripheral teeth alternating with like spaces or notches, the disks being positioned so that the teeth of one are opposite the notches of the other, whereby any desired code grouping of break wheel teeth may be exposed by removing the corresponding teeth of the insulating element.

1,416,595. ROTATING LEER AND METHOD OF OPERATING THE SAME. James Bailey, Corning, N. Y., assignor to Corning Glass Works, Corning, N. Y., a Corporation of New York. Filed Mar. 17, 1919. Serial No. 283,062. 10 Claims. (Cl. 49—47.)



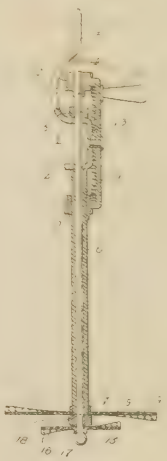
1. The herein described method of feeding an article through a heat treating zone, which consists in rotating the article about an axis inclined at an oblique angle to the direction of feed.

1,416,596. HAIR CURLER. Emma D. Baker, Nashville, Tenn. Filed Nov. 18, 1921. Serial No. 516,117. 4 Claims. (Cl. 132—41.)



1. In a hair curler, a main intermediate member having a suitable covering, and a closing tongue and clamping member respectively disposed on opposite sides of the intermediate member and respectively continued from one extremity of the latter and hinged to the opposite extremity through the medium of terminal bends in the form of loops and hinged connecting devices.

1,416,597. WHIPPER. Einar H. Berg, Chicago, Ill. Filed Aug. 13, 1920. Serial No. 403,366. 1 Claim. (Cl. 259—132.)



A whipper comprising a shaft having a spherical end, a sleeve mounted upon the major portion of said shaft, a handle formed of flat metal bent to provide parallel horizontal portions and a connecting vertical portion, said shaft extending through said horizontal portions and the lowermost of said horizontal portions resting upon the upper end of said sleeve, a collar pinned upon said shaft

and engaging the uppermost of said horizontal portions, beating paddles mounted one upon the lower end of said sleeve and one upon said shaft and in engagement with said spherical head, a bevel gear rotatably carried by said vertical portion and means connecting said gear and shaft.

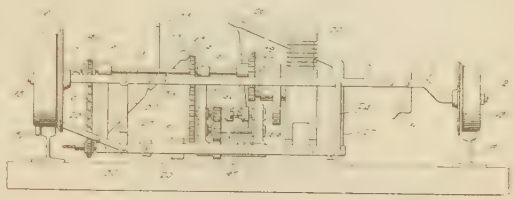
1,416,598. DISPLAY BOX. JESSE A. BLOCH, Wheeling, W. Va. Filed Apr. 26, 1921. Serial No. 464,630. 2 Claims. (Cl. 206—44.)

1. A merchandise container comprising a receptacle, a cover having side and end flaps adapted to be received by the receptacle between the walls thereof and the contained merchandise, display matter on the inner face of the top of said cover and on the inner faces of said flaps, said cover adapted to be turned into open position on the line between its top and one side flap, and the other side and end flaps adapted to be turned into the plane of the top of the cover and complete the display matter thereon.

1,416,599. BATH FITTING. LEON BLOCH, New York, N. Y. Filed July 20, 1918. Serial No. 245,929. 3 Claims. (Cl. 4—24.)

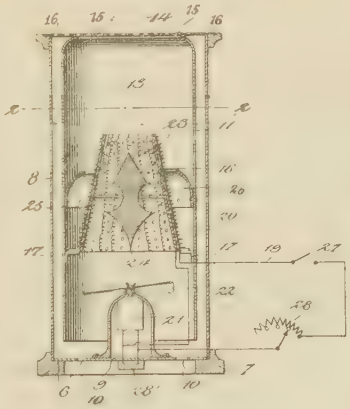
1. A bath fitting comprising a substantially globular member having a valved intake passage, the said member being open at one side, the intake passage having threaded walls, the said member having an overflow passage surrounding the walls of said inlet passage, an annular flange at the open side of said member, the member having an integral branch adapted for connection with a standard waste pipe, an overflow plate arranged in horizontal alignment with the open side of the member, and a threaded discharge nozzle operatively connected with the threaded walls of said intake passage and also operatively connected with said overflow plate, whereby an adjustment of the nozzle to effect its attachment to the structure will draw the flanged open side of the member and the inner face of the overflow plate respectively against the opposite sides of the wall of a tub or like fixture.

1,416,600. RAIL-DRILLING DEVICE. PAUL G. BODWELL, Griffin, Ga. Filed Oct. 25, 1920. Serial No. 419,384. 1 Claim. (Cl. 77—8.)



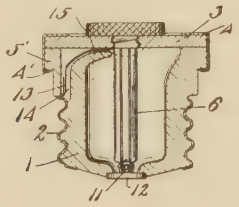
A device of the character described comprising an elongated substantially rectangular supporting frame mounted upon wheels adapted to travel upon rail-road tracks, a plurality of depending hangers pivotally connected with the sides of said frame and all of the same length, an auxiliary frame of less dimensions than said main frame pivotally connected with the lower ends of the hangers and disposed in parallel relation below the main frame when in lowered position, a lever connected with said auxiliary frame whereby the same may be swung upwardly, a depending catch member secured upon the main frame and engageable by the auxiliary frame whereby to hold the latter elevated, a pair of arms pivoted upon the sides of the auxiliary frame and having their free ends formed as hooks engageable over a rail, a lever pivotally connected with said arms and extending upwardly in an inclined direction and formed with a retaining notch, and a transverse catch carried by the main frame engageable by said notch whereby to hold said arms out of engagement with the rail and a drilling mechanism carried by the auxiliary frame.

1,416,601. COMBINED HEATER AND VENTILATOR. ROBERT G. BOONE, Asbury Park, N. J. Filed Sept. 7, 1920. Serial No. 408,710. 2 Claims. (Cl. 219—39.)



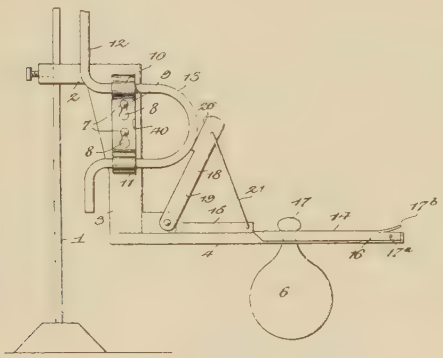
1. A structure of the class described comprising, a hollow open ended column, a concentric shell associated with the column and having its walls spaced from the walls of the column so as to provide a heat insulating chamber between the respective walls, a heating element in said shell, and means for drawing cold air into the shell and for subjecting said air to the action of the heating element and for subsequently discharging the heated air from the shell, said means serving to produce a down draft in the space between the walls of the shell and the walls of the column, as and for the purpose specified.

1,416,602. FUSE PLUG. FRANK W. BOYD, Spokane, Wash., assignor of one-third to Joseph A. O'Connell, Spokane, Wash. Filed Aug. 18, 1919. Serial No. 318,303. 3 Claims. (Cl. 200—128.)



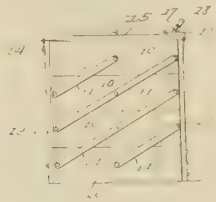
1. The combination in a fuse plug with a hollow base member and its open center cover and retaining means for said cover, of a fuse stem having an exterior head and fitted in said cover, a contact member seated in the base member for attachment with the stem, a fuse ribbon within the stem, an exterior contact shell on the base member, a metallic conductor strip extended from the cover to the shell, and means for shielding said strip for the purpose described.

1,416,603. SIPHON CONTROL DEVICE. AUGUST WILLIAM BRATER, New York, N. Y. Filed Aug. 20, 1920. Serial No. 404,930. 7 Claims. (Cl. 137—104.)



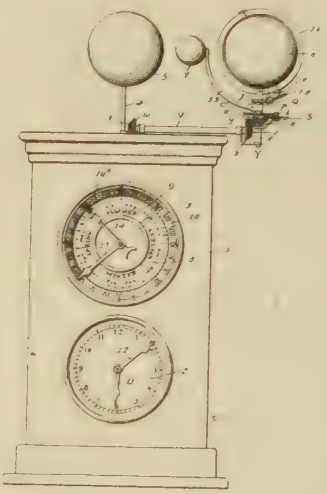
6. In a device of the class described, the combination of a flexible tube, means for supporting said flexible tube in curved formation, a pivoted member operable to effect kinking of said tube, a float, and a pivoted member operable by said float and adapted to operate the first said pivoted member for effecting kinking of said tube.

1,416,604. EGG CASE. JAMES S. BROWN and ROY R. JOHNSON, Warba, Minn. Filed June 8, 1921. Serial No. 475,902. 3 Claims. (Cl. 217—8.)



1. A folding crate or case having a plurality of trays adapted for arrangement in co-extensive superposed relation and connected by pivotal links mounted upon the side walls thereof, the uppermost and lowermost trays being provided respectively at their rear and front sides with downwardly and upwardly extending uprights, and a cover hingedly mounted upon the rear uprights in covering relation with the uppermost tray and adapted for attachment at its front edge with the upper ends of the front uprights.

1,416,605. ASTRONOMICAL CLOCK. MICHAEL BULKA, Gardner, Mass., assignor, by direct and mesne assignments, to Astronomical Clock Manufacturing Company, Chicago, Ill., a Corporation. Filed Dec. 1, 1919. Serial No. 341,585. 1 Claim. (Cl. 58—3.)

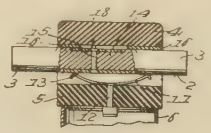


In an astronomical clock, a year hand, a twenty-four hour hand, clock mechanism for rotating said hands, a dial, and a revoluble annulus associated with the dial and having means engaged by the year hand for the movement of the annulus by said hand, said annulus bearing on its face figures representative of the hours in a day and arranged in two series of one to twelve each in regular sequence.

1,416,606. CHLORINE DERIVATIVES OF HEXAMETHYLENTETRAMINE. ROMOLO BURATTI, Croce Mosso, Italy. Filed June 18, 1918. Serial No. 240,700. 3 Claims. (Cl. 266—141.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

1. A process for the production of stable chlorine derivatives of hexamethylentetramine consisting in neutralizing by an acid, a solution of a hypochlorite of one of those metals classified in the two first metal groups, and in adding to said neutralized solution a solution of hexamethylentetramine.

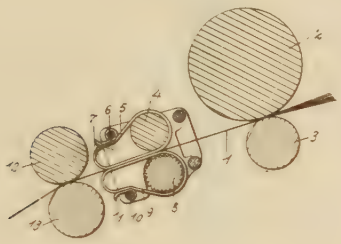
1,416,607. LAMP SOCKET. WALTER M. CARTER, Portsmouth, Va. Filed Feb. 11, 1919. Serial No. 276,272. 2 Claims. (Cl. 173—355.)



1. A device of the kind described comprising a body having means for engagement with the respective terminals of a lamp base, a circuit closing element slidably mounted in the body, contact plates carried by the circuit closing element on opposite sides thereof but electrically connected, a bowed spring having electrical connection with one of the means of said body and mounted in the body for contact with one of the plates of the circuit

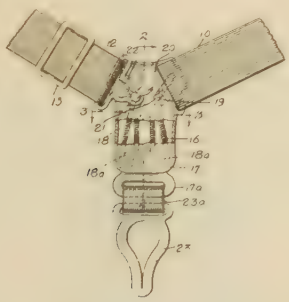
closing element, and a pair of contact plates carried by the body above the circuit closing element for engagement with one of the plates carried by the circuit closing element, the spring tending to raise the circuit closing element toward the said pair of contact plates carried by the body in the manner and for the purpose specified.

1,416,608. DRAWING MECHANISM FOR TEXTILE ROVINGS, WITH FEEDING BELTS. FERNANDO CASABLANCAS, Sabadell, Spain. Filed Feb. 17, 1921. Serial No. 445,782. 2 Claims. (Cl. 19—131.)



1. A drawing mechanism comprising a pair of feeding rollers, a pair of drawing rollers situated apart from the feeding rollers, a pair of slack belts between the drawing and feeding rollers and adapted to bear yieldingly upon the roving at opposite sides, an idle roller in the upper of said belts bearing upon the lower belt, and a driven roller engaged through the lower belt beneath said upper roller, said drive roller having inclined teeth thereon with points projecting at an angle, such angle being in the direction of rotation of the teeth, such teeth adapted to engage in the belt to drive the lower belt without slipping.

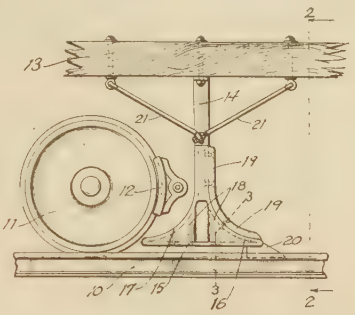
1,416,609. GARMENT SUPPORTER. HOLGER V. CLAUSEN, New York, N. Y. Filed Mar. 30, 1921. Serial No. 456,927. 8 Claims. (Cl. 241—6.)



1. A garment supporter of the class described, including a shield having slots at opposite sides of the medial line of the shield and oblique thereto, a spring within the shield, a band, and connecting means between the band ends and said spring, said means extending through said slots and movable therein to subject the band to the tension of the spring.

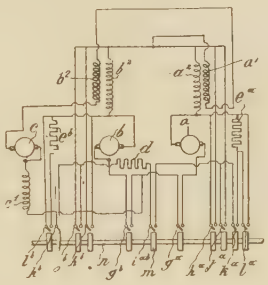
1,416,610. SAFETY FENDER FOR CAR WHEELS. FREDERICK K. COCHRAN, Los Angeles, Calif. Filed June 20, 1921. Serial No. 479,011. 5 Claims. (Cl. 293—58.)

1. A safety fender for car wheels comprising a vertically disposed arm adapted to be attached to a part of a car, a substantially hollow fender carried by the lower portion of said arm and adapted to be disposed immediately in front of a car wheel and above the track rail upon which said wheel operates, the front portion of said fender being curved, and a flange depending from the inner edge of the front end of said fender which flange



extends downwardly below the plane occupied by the tread portion of the rail above which the fender is positioned.

1,416,611. ELECTRICAL DRIVING MEANS. EMMANUEL LOUIS PAUL COLARDEAU, Paris, France, assignor to Henry Crochat, Paris, France. Filed Oct. 27, 1917. Serial No. 198,836. 3 Claims. (Cl. 172—239.)

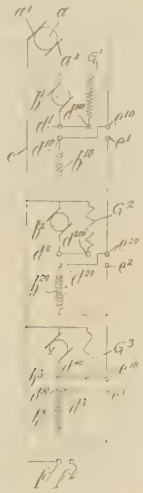


2. An electric driving gear for vehicles of the type comprising two motors in conjunction with an engine-driven generator, said motors being adapted to drive shafts individual thereto, differences in the speeds of the two motors operating to turn the vehicle, said driving gear embodying two motors, the field winding of each of which is divided into a first and a second cumulative element, the first element of the field winding of one motor being connected in series with the first field winding element of the other motor, such series connection beginning with one pole of the engine-driven generator and ending with a branching point, the second field winding element of each of the two motors being connected between said branching point and one of the brushes of the respective motors, in combination with means for shunting the second field winding element of either one of the motors, means for inserting a variable resistance into the armature supply circuit of either of the motors, means for interrupting the armature supply circuit of either of the motors, means for interrupting the armature supply circuit of either of the motors and simultaneously shunting a circuit part comprising the armature and the second field winding element of the corresponding motor, and means for interrupting the armature circuit of one of the motors and shunting such armature circuit.

1,416,612. ELECTRIC MOTOR. EMMANUEL LOUIS PAUL COLARDEAU, Paris, France, assignor to The Society Etablissements Henry Crochat, Paris, France. Filed Nov. 13, 1919. Serial No. 337,747. 1 Claim. (Cl. 172—179.)

An electric system adapted to be applied to a train of vehicles comprising a generator, a plurality of electric

motors for driving some of said vehicles, each of said motors including armature and field windings connected in series and shunted across the terminals of the generator, a resistance for each motor adapted to be shunted across the armature thereof, said resistance being arranged so

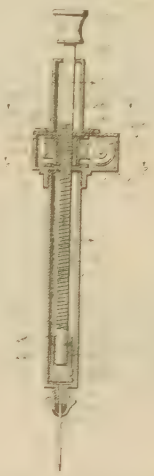


that their braking actions on the armatures increase gradually from the first to the last motor driven vehicle of the train, and shiftable contacts for rendering said resistances operative and connecting the field windings of said motors in series in a circuit with the terminals of said generator.

1,416,613. TRAIN OF VEHICLES. EMMANUEL LOUIS PAUL COLARDEAU, Paris, France, assignor to The Society Etablissements Henry Crochat, Paris, France. Filed Nov. 13, 1919. Serial No. 337,748. 1 Claim. (Cl. 280—33.5.)

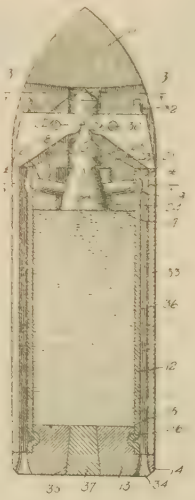
In a train of vehicles in which the distance between the wheels of one vehicle, and the distance between the front wheels of a trailing vehicle and the rear wheels of the towing vehicle are normally equal to each other, the combination of a coupling bar, pins inserted through respective ends of said bar and the corresponding truck of the vehicles for pivotally connecting said bar to the rear truck of the towing vehicle and the front truck of the trailing vehicle, a gear on each of said pivot pins secured to each of said trucks, a toothed wheel mounted loosely on each of said pivot pins, the rear end of the coupling bar being secured to one of said toothed wheels, a pin mounted in the frame of the vehicle parallel to said pivot pin, two pinions secured together and loosely mounted on said second pin, the said pinions engaging with the toothed wheel and gear respectively, said toothed wheel, gear and pinions having such relative diameters that to each angular movement of the coupling bar corresponds half as great an angular movement of the trucks.

1,416,614. SYRINGE WITH PROGRESSIVELY-GRADUATED AUTOMATIC ACTION. JULES COURNAND, Paris, France. Filed Nov. 28, 1913. Serial No. 803,556. 4 Claims. (Cl. 128—218.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



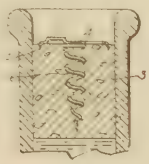
1. In a hypodermic syringe, the combination of a barrel, a screw threaded rod slidably but non-rotatably mounted in said barrel and carrying a piston at one end operable in said barrel, a nut rotatably mounted at one end of said barrel and meshing with said rod for moving the latter and said piston longitudinally in said barrel, a flexible member having a swiveled connection with said barrel, a flexible power driven rotary shaft mounted within said member, and gearing interposed between said shaft and said nut for rotating the latter, said gearing permitting said member to swing upon its swiveled connection with said barrel to permit said member to be maintained in parallel relation with said barrel.

1,416,615. OIL PROJECTILE. EDWIN R. CRAMER, Newark, and OSCAR H. CRAMER, Edgewater, N. J. Filed Mar. 23, 1921. Serial No. 454,666. 5 Claims. (Cl. 102—35.)



1. A projectile of the character described including a container shell having a closed weighted end and an open end, a nose constituting a closure for said open end, interengageable means provided respectively on the shell and closure for normally retaining said closure in closed relation with respect to the open end, said means being disengageable when the force of the projectile is spent by the vertical descent of the projectile with its weighted end foremost, whereby to effect separation of the container from the closure.

1,416,616. NONREMOVABLE CORK. LOUIS CRANE, New York, N. Y. Filed Apr. 16, 1921. Serial No. 461,867. 3 Claims. (Cl. 215—55.)

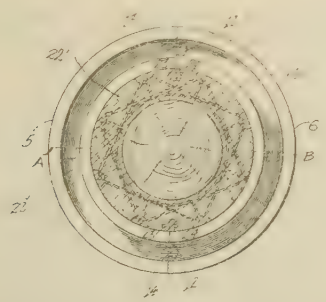


1. An attachment for corks of bottles or other containers, which comprises a metallic plate attached to and substantially covering the upper surface of the cork, a key having projecting lugs on its lower end, and struck-up portions on the plate adapted to engage with the lugs on the key whereby the plate and the cork may be removed from the bottle.

1,416,617. CUE HOLDER. DOMENICK M. CUA, Sandusky, Ohio. Filed June 6, 1921. Serial No. 475,413. 2 Claims. (Cl. 46—6.)

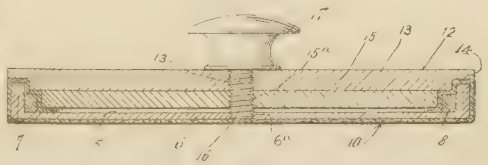
1. A cue holder comprising a pair of supporting strips, cross members connecting said strips, a substantially semi-cylindrical sleeve section supported on said cross members, a substantially semi-cylindrical sleeve section hinged thereto and adapted to cooperate with said first section to form a sleeve for the reception of the cue, said sleeve being provided with a closed end and an open end, and a supporting member spaced from said open end and arranged in alinement with said sleeve.

1,416,618. PILE PROTECTOR. WALTER E. DASHWOOD, San Francisco, Calif. Filed Apr. 23, 1921. Serial No. 464,023. 1 Claim. (Cl. 20—100.)



In a device for protecting piles, a plurality of segmental sections assembled to form superposed cylinders, the adjacent segments being connected by interlocking means, and additional means for securing the sections one to another, said means comprising lugs placed on the inner peripheries of the segments and cross ties connecting said lugs.

1,416,619. FINGER-NAIL BUFFER. HENRY E. DAVIS, Boston, Mass., assignor to C. J. Bates & Son, Chester, Conn., a firm composed of Carlton J. Bates and Hamilton C. Bates. Filed Apr. 10, 1920. Serial No. 372,979. 4 Claims. (Cl. 132—78.)



1. In a device of the character described, a metal frame comprising a base and an upstanding marginal flange, a band arranged within said frame against said marginal flange and co-extensive therewith whereby said flange and said band present steps, buffing fabric surrounding the frame and overlying the steps thereof, a combined cover and clamp including a body portion receivable in said frame and having its marginal edge adapted to engage the buffer cloth overlying the band and having a laterally extending flange engageable with the buffer cloth overlying the top of the upstanding flange, a filler block arranged between the base and the body portion, said base, said body portion and said filler block having alined openings, a machine screw having threaded engagement with the walls of said openings and a handle for operating said machine screw and manipulating said device.

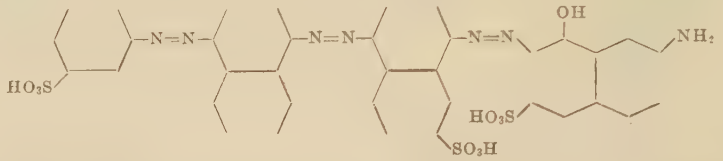
1,416,620. WELL-ROD SOCKET. JAMES A. DAY, Oilfields, Calif. Filed Mar. 16, 1921. Serial No. 452,743. 4 Claims. (Cl. 294—90.)

1. In means for gripping a rod having an enlarged end, a tube adapted to loosely fit on said enlarged end, two

oppositely arranged spades, capable of vertical movements, pivotally suspended in the wall of said tube, a ring between the spades adapted to hold the same in spaced relation, the blades of the spades extending inside the tube and being adapted to recede into the wall when raised, the enlarged end of the rod being adapted to raise said blades in passing the same and the latter being adapted to drop and lock said enlarged end after the same has passed them.

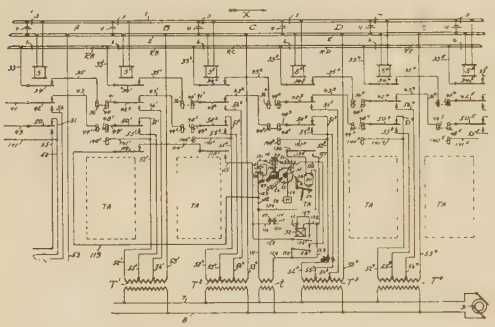
1,416,621. MANUFACTURE OF DIAZOTIZABLE TRISAZO DYES. JENS DEDICHEN, Berlin-Halensee, Germany, assignor to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Filed Aug. 15, 1921. Serial No. 492,482. 2 Claims. (Cl. 260—72.)

2. The new trisazo dyes which are derived from metanilic acid, 1-naphthylamine, 1-naphthylamine-6-(7)-sulfonic acid and 2-amino-8-naphthol-6-sulfonic acid and probably corresponds to the formula:



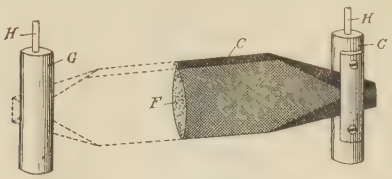
in the shape of pulverized dry sodium salt being a blackish powder soluble in water to a bluish black solution not being altered by soda lye but by hydrochloric acid the dye being separated; soluble in concentrated sulfuric acid to a blackish green solution from which the violet black dye settles out on addition of ice; being destroyed by strong reducing agents; dying cotton reddish blue tints, after diazotation and combination with 2-naphthol or meta-toluylene-diamine turning to bluish gray.

1,416,622. AUTOMATIC TRAIN-CONTROL SYSTEM. FRANK L. DODGSON, Rochester, N. Y., assignor to General Railway Signal Company, Gates, N. Y., a Corporation of New York. Filed Feb. 23, 1917. Serial No. 150,499. 26 Claims. (Cl. 246—182.)



23. A train control system comprising means including track devices for imposing predetermined speed restrictions on passing vehicles at a plurality of control points in the braking distance thereof, and trackway means responding to the speed of trains for modifying the action of said track devices braking distance in the rear of such train and thereby permit higher speeds for a following vehicle.

1,416,623. ELECTRIC DISCHARGING TUBE. BRUNO DONATH, Friedenau, near Berlin, Germany. Filed Oct. 1, 1914. Serial No. 864,536. 2 Claims. (Cl. 250—27.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



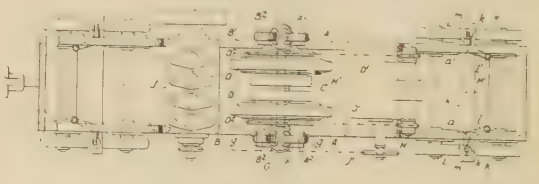
1. An electric discharge tube having a cathode adapted to become incandescent, comprising a container of refractory material and good electrical conductivity, said container having thin metallic perforated walls and a metallic combination therein there being also a coating of metallic combination on the outside of said container

1,416,624. FIGURE TOY. MICHAEL JOHN DUFF, Bridgeport, Conn. Filed Nov. 29, 1920. Serial No. 427,124. 7 Claims. (Cl. 46—40.)

1. An article of manufacture, comprising intersecting members set an angular positions with respect to each other to provide faces, each of said faces having thereon a part of a whole picture, and said article adapted to be

rotated, whereby said part pictures will appear to blend with each other and produce an illusion of movement.

1,416,625. LOCOMOTIVE FOR LIGHT RAILWAYS. FRANK HENRY DUTTON, Johannesburg, Transvaal, South Africa, assignor to Roadrails, Limited, London, England. Filed Aug. 22, 1921. Serial No. 494,181. 12 Claims. (Cl. 105—26.)

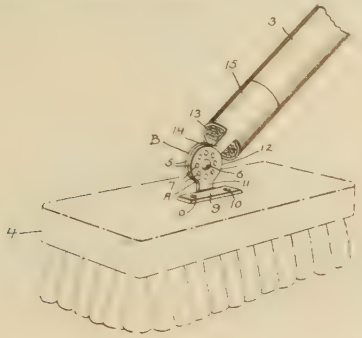


1. In a light railway vehicle in combination, a bogie, a frame supported on said bogie and self steering connections between the said frame and said bogie substantially as set forth.

1,416,626. STAFF OR HANDLE CONNECTION. THOMAS A. ENGLISH, North Albany, N. Y. Filed June 22, 1920. Serial No. 390,822. 1 Claim. (Cl. 306—17.)

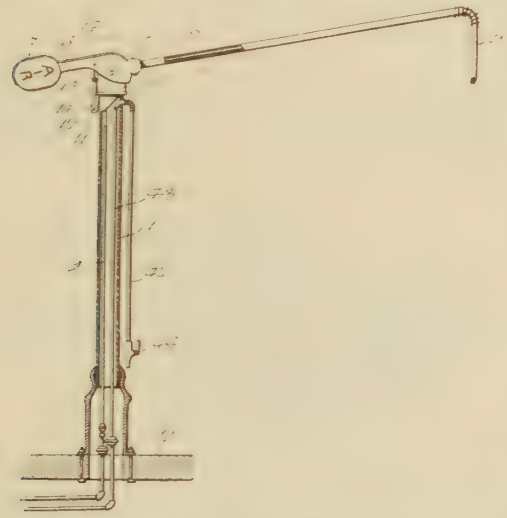
A staff or handle connection, in combination with a brush, a sleeve secured to the handle having an extension, a disk formed integral with the extension and offset therefrom, an annular series of recesses formed in said disk, a plate secured to the brush head having a vertical extension, a disk formed integral therewith of the same diameter as the first mentioned disk, depressions arranged in the second mentioned disk forming projections fitting

in the recesses of the first mentioned disk, and a pivot pin connecting the said disks, the latter having sufficient



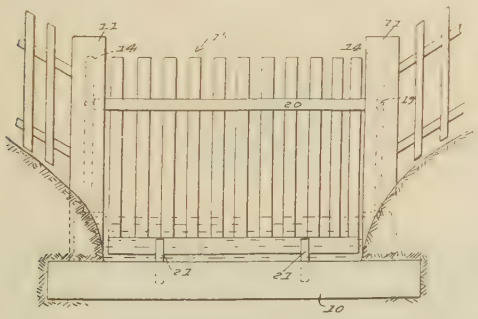
resiliency to permit adjustment of the handle upon application of force.

1,416,627. AIR SERVICE STATION. ARNO ARTHUR EWALD, Oakfield, Wis. Filed Oct. 21, 1920. Serial No. 418,497. 6 Claims. (Cl. 299—77.)



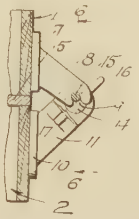
1. A tire inflating device comprising a standard, a head swiveled on the upper end of said standard, a vertically swinging arm pivotally mounted on said head and carrying a tire inflating hose, counterbalancing means for returning said arm to a normally raised position after use, and means movable bodily with said head for checking and cushioning the return movement of said arm.

1,416,628. WATER GATE. THOMAS F. FERGUSON, Hollywood, Ala. Filed June 8, 1920. Serial No. 387,397. 3 Claims. (Cl. 39—4.)



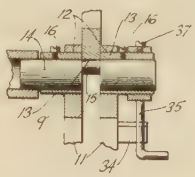
1. A water gate having posts or uprights, buoyant foot blocks guided by the posts or uprights, means for swingingly supporting the gate at its upper end from the buoyant blocks, and means for limiting the swinging movement of the gate proper when the foot blocks are in their normal positions.

1,416,629. ECCENTRIC HINGE FOR MOLDING FLASKS. JOHN FISHER, Los Angeles, Calif. Filed Feb. 21, 1921. Serial No. 446,792. 3 Claims. (Cl. 22—105.)



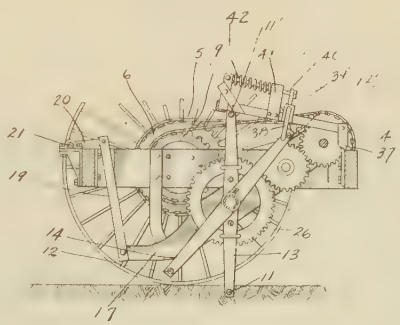
1. A molding flask comprising a cope and drag having a separable hinge connection for adjustment of the axis thereof relative to the flask, said adjusting means including a pivot rod having locking pins, and means arranged to be engaged by the respective pins in order to lock the hinge connection in adjusted positions.

1,416,630. HINGE FOR MOLDING FLASKS. JOHN FISHER, Los Angeles, Calif. Filed Apr. 23, 1921. Serial No. 463,929. 2 Claims. (Cl. 22—105.)



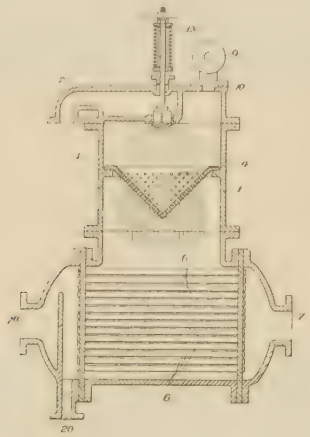
1. A molding flask comprising a cope and drag having a hinge connection including bearings at opposite ends of said flask and a bearing rod journaled in said bearings, and means for adjusting the length of said bearing rod to accommodate the hinge connection to flasks of varying length.

1,416,631. WEEDING IMPLEMENT. JOHN L. FLORIN, Davenport, Wash. Filed Oct. 18, 1921. Serial No. 508,564. 7 Claims. (Cl. 97—25.)



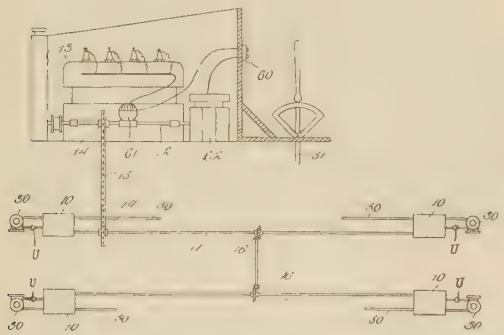
1. In a weeding implement the combination with a rotary reel comprising a plurality of relatively movable weeding devices, of means for intermittently rotating said devices, and means for alternately holding said devices stationary in operative position.

1,416,632. APPARATUS FOR REMOVING GASES FROM LIQUIDS. HARRY FOTHERGILL, London, England. Filed Dec. 27, 1921. Serial No. 524,934. 10 Claims. (Cl. 183—3.)



1. Apparatus for removing gases from liquids comprising a vessel having an upper part constituting a direct contact condenser and a lower part constituting a surface heater, means for introducing the liquid to be treated into the upper part, means for causing said liquid to fall in a shower from the upper part on to the heated surface, said means extending from one side of the vessel to the other, an outlet for air in the upper part, said outlet being located above the liquid inlet whereby the incoming liquid operates by direct contact to condense liquid vapour rising with the air from the heated surface and permits the air to pass off to the air outlet.

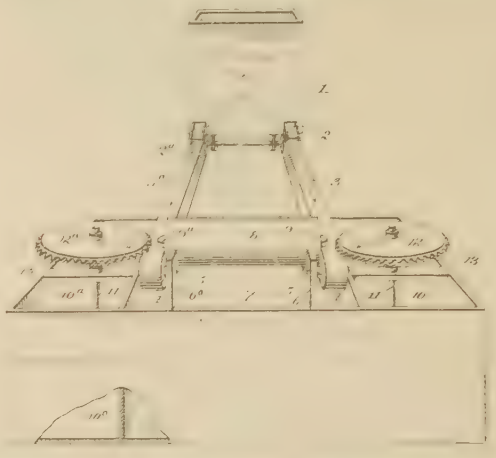
1,416,633. JACKING APPARATUS. JOHN GUTMANN, Jr., Ridgewood, N. Y. Filed Apr. 12, 1921. Serial No. 460,845. 7 Claims. (Cl. 254—103.)



1. The combination of a mechanically operable jack, motor driven mechanism for operating said jack, and manually and automatically operable mechanism for controlling the operation of said first mentioned mechanism.

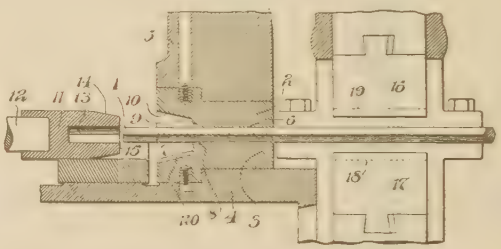
1,416,634. PROCESS AND APPARATUS FOR CONCENTRATION AND SEPARATION OF DIAMAGNETIC MINERALS. WILLARD C. HALL, Butte, Mont. Filed Aug. 4, 1921. Serial No. 489,771. 8 Claims. (Cl. 83—71.)

1. The herein described process of separating diamagnetic minerals from ores containing the same, which consists in passing such ore in a comminuted condition through an intensified magnetic flux established between the pole of an electro-magnet and a movable magnetic conductive member placed adjacent the pole and spaced therefrom, whereby there are produced in the mineral



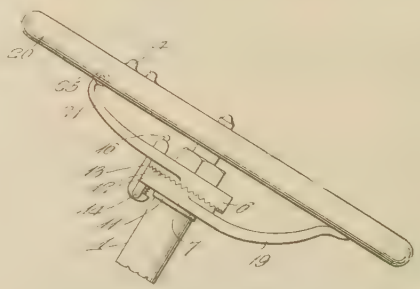
particles molecular currents flowing in one direction only, thereby causing the particles to pass to and become adherent to said moving member.

1,416,635. FORGING MACHINE. FRANK A. HALLECK, Oak Park, Ill., assignor to Sullivan Machinery Company, a Corporation of Massachusetts. Filed Mar. 6, 1917. Serial No. 152,871. 9 Claims. (Cl. 76—95.)



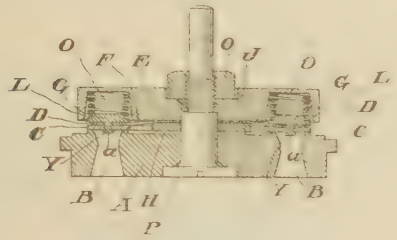
1. In a forging machine for drill steels, relatively movable clamping members provided with a plurality of recesses, and a dolly movable into one of said recesses to define with said clamping members the limits of another of said recesses into which material to be forged may be upset.

1,416,636. FOLDABLE STEERING WHEEL. DORRIS A. HANES, San Antonio, Tex. Filed Sept. 15, 1921. Serial No. 500,942. 5 Claims. (Cl. 74—33.)



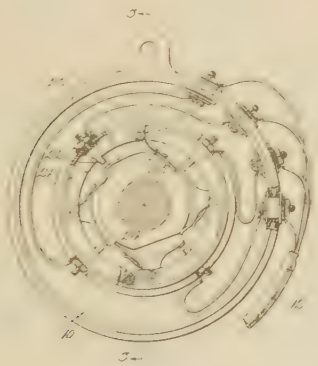
3. A steering wheel comprising a hub member, a pair of rigid spokes extending therefrom and having knuckles on their outer ends, a continuous unbroken wheel rim having a pair of socket members at its lower side and pivotally receiving said knuckles to permit swinging of the wheel rim out of its operative plane, and releasable means for holding said wheel rim normally in said plane.

1,416,637. PLATE VALVE. THOMAS J. HART, Corning, N. Y., assignor to Ingersoll-Rand Company, Jersey City, N. J., a Corporation of New Jersey. Filed Mar. 29, 1921. Serial No. 456,597. 4 Claims. (Cl. 251—119.)



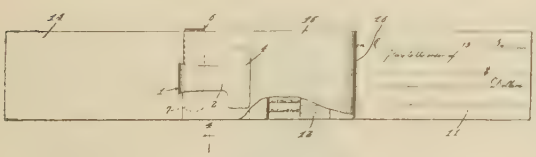
1. A valve comprising a seat, a valve plate, a valve guide, a spacing washer adapted to be assembled between the seat and guide, means connected to the seat and passing through the washer and guide for aligning the parts of the valve, safety devices cooperating between the washer and seat for insuring the assembling of the washer between the seat and guide and means for holding the parts of the valve together.

1,416,638. TIMER. DAVIDSON S. HAYNES, Evansville, Ind. Filed Apr. 2, 1920. Serial No. 370,700. 3 Claims. (Cl. 200—27.)



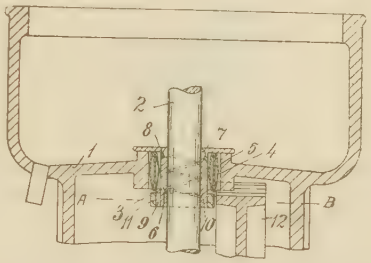
1. A timer including a cap, a ring within said cap, inwardly extending flanges forming a part of said ring, yokes rockingly mounted between said flanges, contact surfaces upon one of the arms of said yokes, lead terminals forming contact points in line with the contact surfaces of said yoke arms and means for rocking such yoke arms.

1,416,639. CHECK-PROTECTOR. ARLOW B. HIMES, Van Wert, Ohio. Filed Apr. 1, 1921. Serial No. 457,592. 3 Claims. (Cl. 101—3.)



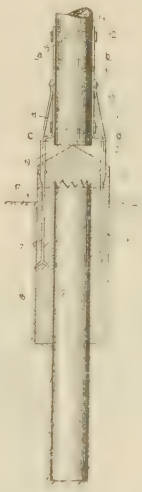
1. A check protector comprising a U-shaped member embodying arms provided with impression surfaces, and a U-shaped clip disposed substantially at right angles to the U-shaped member, the clip embodying a free ended arm, and an arm joined to one edge of one arm of the U-shaped member.

1,416,640. LUBRICATING DEVICE FOR MILK CENTRIFUGES AND THE LIKE. HALVOR HOLTE, Skien, Norway, assignor of one-half to A/S Separator, Skien, Norway. Filed Sept. 10, 1920. Serial No. 409,338. 5 Claims. (Cl. 64—56.)



1. In lubricating device for the spindles of milk centrifuges and the like of the kind in which the oil to be transmitted to the bolster is lifted from an oil well by a slowly moving member the combination of a substantially vertical bolster sleeve and a lubricating groove in said sleeve adjacent to the spindle, with an oil collecting channel in the lower part in said bolster sleeve, the mouth of which channel is situated so near to and at such an angle to the face of said slowly moving oil lifting member as to collect oil from the same and transmit it to said spindle lubricating groove.

1,416,641. MANUFACTURE OF REENFORCEMENTS FOR WOODEN POLES, MASTS, ETC., WHICH ARE SET IN THE GROUND AND HAVE BEEN DAMAGED BY WEATHER INFLUENCES. FRIEDRICH JAECKLE and PAUL MEHLHORN, Freiburg, Germany. Filed June 11, 1920. Serial No. 388,381. 5 Claims. (Cl. 72—84.)

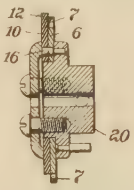


1. The method herein described of repairing poles, masts and the like which have been damaged by weather influences, consisting in anchoring a metal armor in a concrete base about the poles, securing the armor to the pole or mast above the damaged portion, severing the pole above and below the damaged portion and removing the damaged portion, and placing cement in the space occupied by the removed damaged portion.

1,416,642. CALL-BOX CONTACT MECHANISM. GEORGE W. JANSON, Brooklyn, N. Y., assignor to The Western Union Telegraph Company, New York, N. Y., a Corporation of New York. Filed July 2, 1920. Serial No. 393,654. 2 Claims. (Cl. 177—378.)

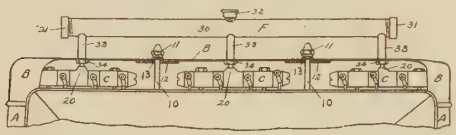
1. In a signal transmitter having a toothed break wheel and contact pens adapted to engage the periphery of the exposed teeth of said wheel as the latter is rotated, an in-

sulating disk having a greater diameter than said wheel whereby the pens are lifted from the latter when the disk and wheel are juxtaposed, the peripheral portion of the



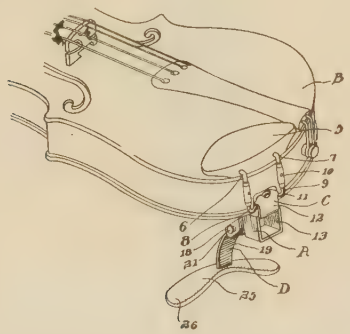
disk being composed of a series of scored frangible sections, and which may be readily removed as desired to expose any predetermined combination of said teeth.

1,416,643. OILING SYSTEM FOR EXPLOSIVE ENGINES. FRED L. JOHNSON, Concord, N. H. Filed Apr. 28, 1921. Serial No. 465,168. 3 Claims. (Cl. 184—18.)



1. The combination with an automobile engine having a valve oiling system comprising a plurality of oil reservoirs each of which has an adjustable head with a tapered oil inlet mouth, of a cover having neck holes, a master reservoir having a plurality of nipples leading therefrom each of which has a shoulder, a threaded neck which passes through a cover neck hole and a tapered end adapted to fit an oil inlet mouth, nuts screwed on said necks to hold the cover against the shoulders and together with the master reservoir, and means to detachably attach the cover to the engine, together with wicks each of which passes through a nipple.

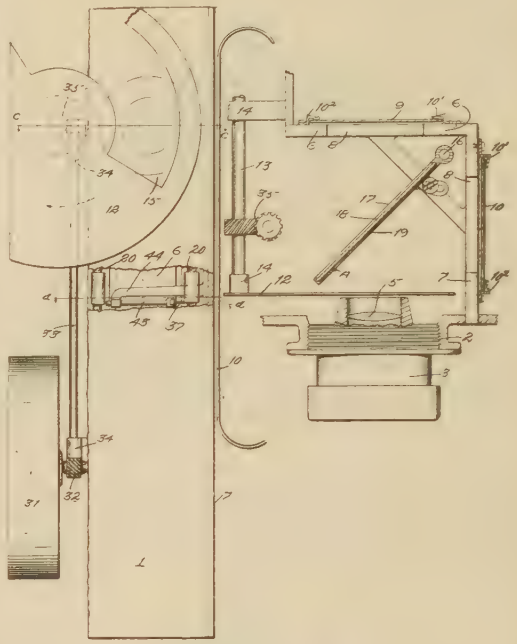
1,416,644. SHOULDER REST FOR VIOLINS. GEORGE W. JORDAN, Riverside, Calif. Filed Mar. 21, 1921. Serial No. 453,917. 3 Claims. (Cl. 84—278.)



3. A support for string instruments comprising a clip for adjustably engaging the instrument, a depending rest formed on the clip in position to engage the collar bone of the user, a forwardly extending downwardly inclined lip formed on the collar bone rest, a forwardly and downwardly extending arm detachably secured to said lip, and a transversely extending curved arm carried by the first mentioned arm for engaging the shoulder of the user.

1,416,645. DUPLEX CAMERA. CHARLES F. JONES, Los Angeles, Calif., assignor to Colorco, San Francisco, Calif., a Corporation of California. Filed Mar. 13, 1916, Serial No. 83,791. Renewed Dec. 15, 1919. Serial No. 345,125. 11 Claims. (Cl. 88—16.6.)

1. In a camera provided with a lens and shutter, a plurality of apertured walls therein one arranged transversely to said lens opening and the other parallel therewith in advance of said first wall and at substantially right angles thereto, said camera adapted for receiving a plurality of films one for movement over each of said walls for the simultaneous exposure of successive portions thereof to the light rays passing through said lens, a ver-

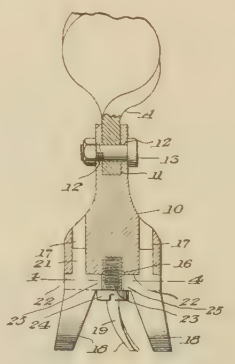


tically reciprocating carriage, a pair of horizontally reciprocating claw carrying frames carried thereby and arranged at approximately right angles to each other for cooperating with the respective films, and means for operating said shutter and for reciprocating said carriage and said frames.

1,416,646. PROCESS FOR DYEING SKINS, HAIRS, AND THE LIKE. OSKAR KALTWASSER, Berlin, and HANS OEHRN, Berlin-Charlottenburg, Germany, assignors to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Filed Dec. 7, 1921. Serial No. 520,696. 2 Claims. (Cl. 8—5.)

1. The herein-described process for dyeing skins, hairs and like materials which comprises treating the material in the presence of a suitable oxidizing agent in a bath containing a 5-nitro-2-amino-1-oxy derivative of the benzene series.

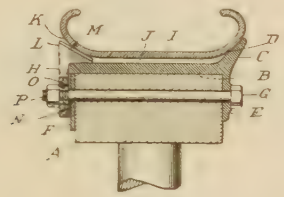
1,416,647. DRILL. NORMAN C. KING, Dubois, Pa. Filed June 13, 1921. Serial No. 477,294. 2 Claims. (Cl. 255—69.)



1. A device of the character described comprising a body provided at one end with means for connection with

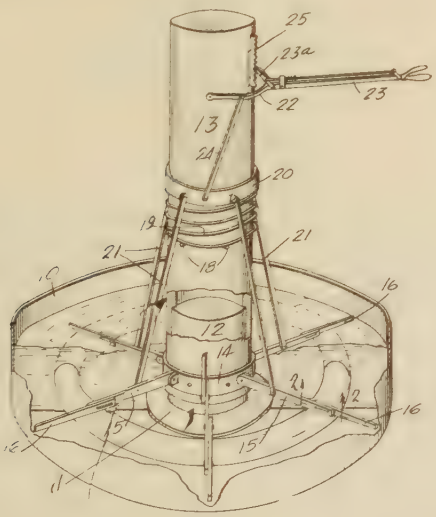
a drill rod and provided at its other end with a plurality of radial slots and passages communicating with said slots, the body being provided in its end with a threaded hole communicating with said slots, a plurality of blades engaged within said slots, and formed with extensions fitting within said passages, and a screw threaded into said hole and having a head engaging said blades.

1,416,648. RIM LUG FOR VEHICLE WHEELS. Ray Charles Kleffman, Hibbing, Minn. Filed Apr. 16, 1918. Serial No. 228,958. 6 Claims. (Cl. 301—20.)



1. In a wheel equipped with a demountable rim, the combination with means on the wheel for engaging a side portion of the rim for preventing relative movement of said parts axially of the wheel in one direction, of means for simultaneously preventing such movement in the opposite direction and relative rotation of said parts, comprising lugs adapted to be secured to the wheel felloe and each equipped with a wedge tongue adapted to pass between the wheel felloe and the opposed surface of the rim, said tongues having surface formations adapted to bite into the opposed surface of the rim.

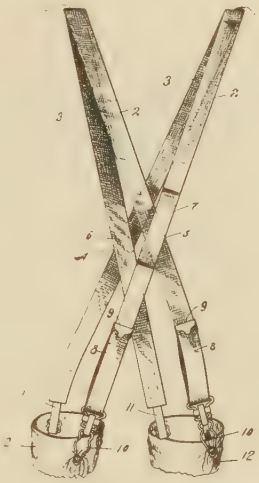
1,416,649. INNER-TUBE TESTER. Edward Knott, Los Angeles, Calif. Filed July 21, 1921. Serial No. 486,391. 6 Claims. (Cl. 73—51.)



1. In a testing device for pneumatic tire inner tubes and the like, a tank, a standard projecting upwardly therefrom, means for submerging an inner tube and forcing the same beneath the surface of the body of water contained within the tank including arms arranged for vertical swinging movement on said standard for engaging said tube.

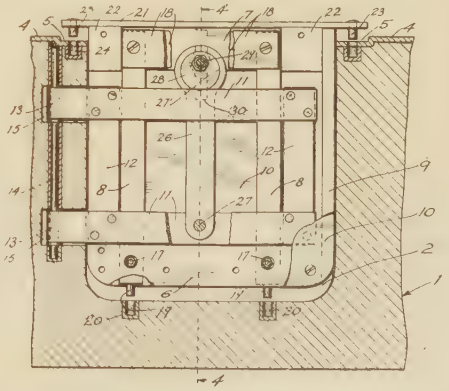
1,416,650. HOSE SUPPORTER. Nelly M. Lancaster, Palatka, Fla. Filed Feb. 5, 1921. Serial No. 442,816. 1 Claim. (Cl. 241—4.)

A hose supporter comprising two strips formed into shoulder-engaging bends each embodying forward and rear portions having free ends, the rear portions being crossed, and the forward portions being crossed, means for connecting the rear portions fixedly and permanently at their point of crossing; means on one forward portion for



receiving the other forward portion slidably at the point where the forward portions cross; and separate hose-engaging elements on the free lower ends of each of said portions.

1,416,651. AUTOMOBILE DOOR. Ernest L. Lanfair, Lanfair, Calif. Filed Sept. 3, 1920. Serial No. 407,938. 4 Claims. (Cl. 296—44.)

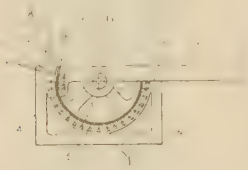


2. The combination, with a door frame, of a frame hinged to the side of the said door frame, a door structure carried by said hinged frame and movable vertically thereupon, a link pivotally connected at its lower end to the hinged frame, the upper end of said link being provided with an opening, an eccentric positioned within the opening in said link, and a handle carried by the vertically movable door structure and passing through said eccentric.

1,416,652. DRAFTING DEVICE. Walter J. Laubenheimer, Chicago, Ill. Filed Jan. 30, 1920. Serial No. 355,022. 3 Claims. (Cl. 33—93.)

1. A drafting device comprising a base formed with an arcuate undercut groove and scale marks along the groove, and an arm pivoted to the base member and having a bev-

eled edge portion moving in the groove and with a vernier co operating with the said scale, a pivot for said arm, and

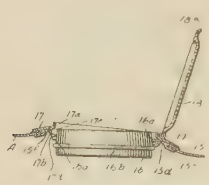


clamping means associated with said pivot for flatwise clamping action against the base and arm to hold the arm in adjusted positions.

1,416,653. GLOVE ATTACHMENT. ADOLF LENNEBERG, Yonkers, N. Y. Filed Mar. 11, 1921. Serial No. 451,478. 14 Claims. (Cl. 2—9.)

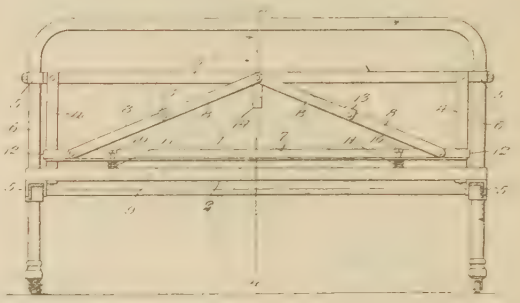
1. A device of the class described including a frame element adapted to be secured to the material of a glove at an opening thereof, said frame element being dished to accommodate itself to a wrist watch when imposed on the latter and thus be protuberant to the minimum extent, and a structure comprising a body fitting within said frame element, and a cover on said body.

1,416,654. VANITY-CASE ASSEMBLAGE. ADOLF LENNEBERG, Yonkers, N. Y. Filed Apr. 2, 1921. Serial No. 457,868. 6 Claims. (Cl. 224—28.)



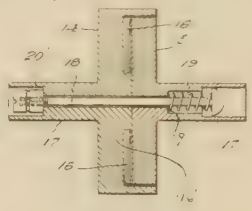
5. In an assemblage of the class described, a receptacle, and a separate frame thereon, said frame having a cover, and said receptacle presenting lateral ears at diametrically opposite sides at the exterior of the receptacle, said frame having an internal flange beneath which said ears may engage, said flange having a notch through which one of the ears may be passed.

1,416,655. BEDCLOTHES CLAMP. JOHN LUNDEEN, Portland, Oreg. Filed May 17, 1921. Serial No. 470,294. 3 Claims. (Cl. 5—22.)



1. A device of the class described comprising a frame having a bottom bar, a clamping bar for cooperating with the bottom bar of the frame, a slidable bar, means for yieldingly connecting the same with the clamping bar and toggle levers connecting the sliding bar with the top of the frame.

1,416,656. HINGE. STANLEY W. LYMAN, Billings, Mont. Filed Feb. 26, 1921. Serial No. 448,234. 1 Claim. (Cl. 16—142.)

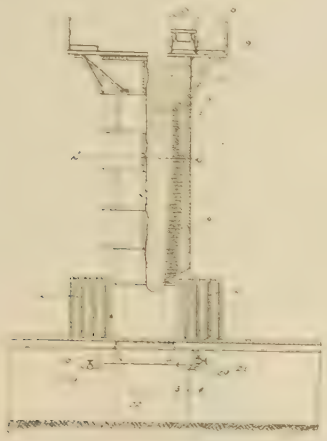


A device of the class described comprising a disc like member having a central opening and provided with a central enlargement, a plurality of teeth projecting from said member around said enlargement a second disc like member engaging said central enlargement and provided with a central opening in alignment with the opening in the first mentioned member, a plurality of teeth projecting from the second member and engaging the teeth of the first mentioned member, an annular flange projecting from the first mentioned member and surrounding the second member, squared extensions projecting from opposite sides of said members, provided with longitudinal openings in axial alignment with the openings in said members and having shoulders formed therein, a bolt extending through the openings aforesaid, a nut mounted on one end of said bolt and engaging one of said shoulders and a coil spring surrounding the opposite end of the bolt and exerting a pressure between the head thereof and one of said shoulders.

1,416,657. KILN. RICHARD K. MEADE, Baltimore, Md. Filed June 23, 1921. Serial No. 479,732. 2 Claims. (Cl. 222—3.)

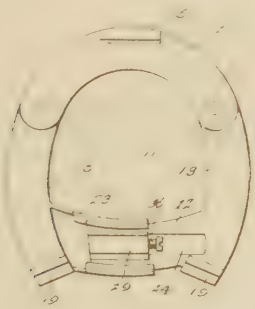
1. In a kiln for burning lime or the like the combination of an upright ore chamber, a coal burning furnace at the bottom of the chamber connected to the ore chamber so the latter acts as a stack, a stoking grate in the furnace composed of rocking sections and a drop bar means

for operating the stoking grate from outside the furnace, hopper feeding means for supplying the fuel to the grate



the bottom of the kiln and the furnace being closed normally and during stoking to prevent the admission of excess air to the kiln.

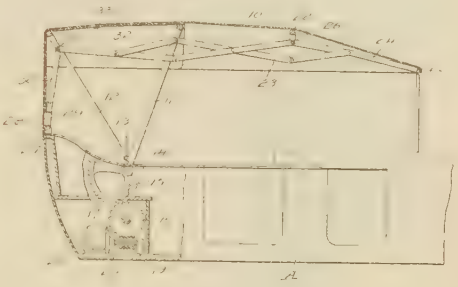
1,416,658. HORSESHOE. MICHAEL MICHELSEN, Newport News, Va. Filed Nov. 15, 1920. Serial No. 424,273. 2 Claims. (Cl. 168—19.)



1. In an expansible horseshoe, a toe portion which is arched in plan, and side portions pivoted to the ends of the toe portion, upwardly directed inwardly-curved fingers on the edges of the toe and side portions, inwardly directed flanges at the outer ends of the side portions, one of said flanges having its edges inturned to receive therein the flange of the second side portion, a lug between the inturned portions of the first-mentioned flange, the second-mentioned flange having a channeled portion to receive the lug, and means between said channeled portion and said lug for adjustably locking the flanges connected.

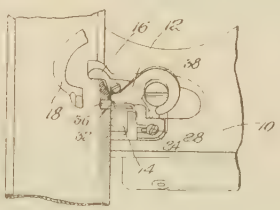
1,416,659. AUTOMOBILE TOP. DELTON C. WATT and FREDERICK A. GREARSON, Barre, Vt. Filed Oct. 5, 1915, Serial No. 54,226. Renewed Jan. 6, 1922. Serial No. 527,519. 7 Claims. (Cl. 296—117.)

1. In a foldable top, a top or cover, mechanims for operating said top to raise or lower it to its open or to its closed position, supporting bows for the top and forming a part of said top operating mechanism, a supporting body on which said bows are pivotally mounted, expansible devices pivotally connected to said bows and to said top, a protecting cover of co-operating sections located on said top and forming a part thereof and adapted upon the folding of the top to its closed position to fold with said top to form a housing for the supporting bows and a major portion of the top when in folded relation to each other, and motor mechanism continuously co-operating with said top operating mechanism at its pivotal point on said supporting body for continuously actuating the said top operating mechanism to move the top to its open position over the supporting body and in its move-



ment to lift a portion of said protecting cover to allow the forward end of the cover to move towards its open position and upon the folding of said top into its closed position, by the operation of said top operating mechanism for lowering the top, to lower the said portion of the top to form a housing for the supporting bows and a major portion of the top.

1,416,660. COMBINED GUIDE AND WORK-HOLDING DEVICE FOR FOLDING MACHINES. CHARLES F. ALTHOUSE, Reading, Pa., assignor to Lorenz Muther, Newton, Mass. Filed May 8, 1918. Serial No. 233,224. 2 Claims. (Cl. 270—93.)

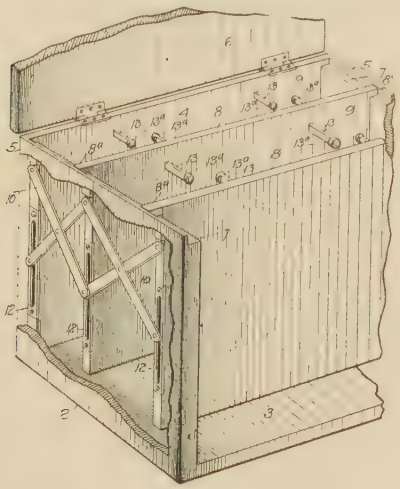


1. A combined guide and work holding device for folding machines having, in combination, a plate provided with a slot whereby it may be adjustably mounted on a folding machine adjacent the folding instrumentalities, a narrow forwardly projecting arm carried by said plate, said arm having its free end turned upwardly to serve as a guide for the edge of the material as it is fed through the machine, said upwardly turned end being provided with an open vertical slot, a spring wire mounted at one end on said plate and having its free end projecting through said slot and a roll loosely mounted on the free end of said spring wire and adapted to engage the edge of the work for holding it down.

1,416,661. MAP FILE. GEORGE H. BARNHART, Ouray, Colo. Filed May 12, 1920. Serial No. 380,818. 7 Claims. (Cl. 129—16.)

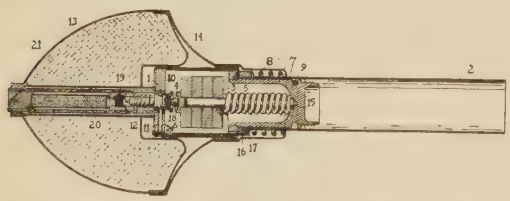
1. A filing device having two opposed surfaces one of which is movable relative to the other, sets of suspension-members projecting oppositely from the surfaces to con-

jointly support an article placed between them, and means cooperating with said members to automatically retain a



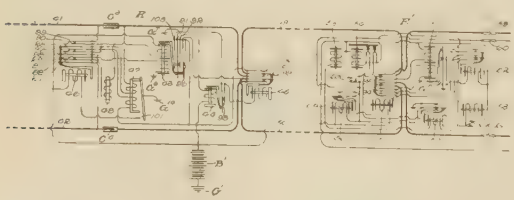
selected number of suspended articles on either set when the surfaces are moved apart.

1,416,662. IGNITION MECHANISM FOR HAND GRENADES, PROJECTILES, AND MINES. FRIDTJOF NIELSEN BRÖNDBY, Christiania, Norway, assignor to A/S Perkussion, a business entity of Christiania, Norway. Filed Dec. 31, 1918. Serial No. 269,164. 7 Claims. (Cl. 102—39.)



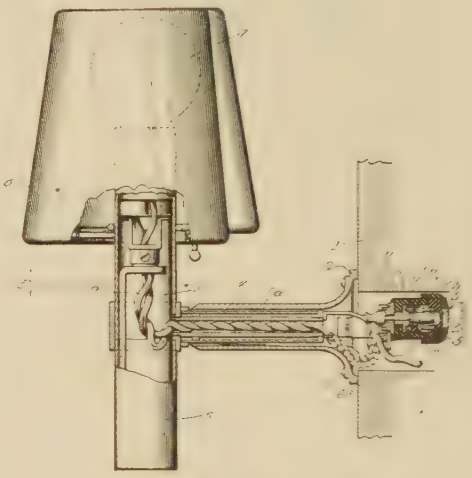
2. In an ignition mechanism for a fuse, the combination of a firing member movable to effect explosion of the fuse, an actuating member for effecting said movement pivotally connected with the fuse at one end, a link intermediate the firing member and actuating member, and a weight mounted in operative connection with but movable in relation to the actuating member and effective to cause a pendulum movement of the last named member whereby the firing member is caused to function.

1,416,663. TELEPHONE REPEATER. BERNARD C. GROH, St. Paul, Minn., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 13, 1916. Serial No. 83,838. 23 Claims. (Cl. 179—18.)



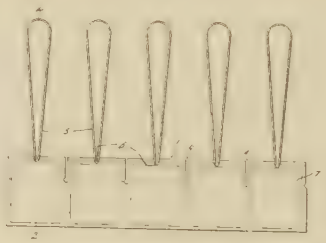
1. In a telephone system, a calling and a called line, means including a plurality of automatic switching mechanisms for connecting said lines, a relay for controlling the progressive motion of one of said mechanisms to extend a connection to another one of said mechanisms and for then controlling said other mechanism over said extension, said relay normally connected in bridge of the line conductors at one of said mechanisms, said bridge including a battery and said relay in series, and a relay actuated upon the closure of the called line circuit for causing the disconnection of said controlling relay from in bridge of the line, said bridge so connected normally that there is no flow of current through any part thereof.

1,416,664. LIGHTING FIXTURE. MARQUETTE A. HEALY and WALTER I. KIRK, Chicago, Ill., assignors to Lyon & Healy, Chicago, Ill., a Corporation of Illinois. Filed May 15, 1919. Serial No. 297,265. 8 Claims. (Cl. 240—4.)



1. A lighting fixture comprising in combination, an adjustable light support, a switch for opening and closing the circuit for said light, said switch having a movable member controlling the mechanism thereof and push and pull mechanical connections between said movable support and said switch for actuating the latter by the movement of the former.

1,416,665. PRICE TAG. FREDERICK KOHNLE, Dayton, Ohio, assignor to The Monarch Tag Company, Dayton, Ohio, a Corporation of Ohio. Filed Aug. 5, 1918. Serial No. 248,270. 2 Claims. (Cl. 40—20.)



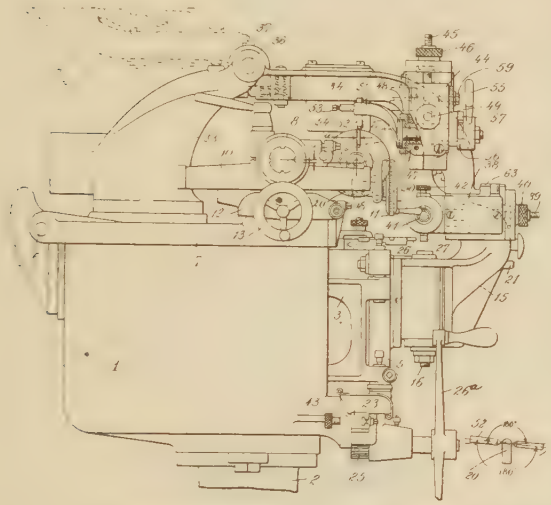
1. An article of manufacture comprising a tape of paper having an adhesive coating on one side thereof, the tape longitudinally folded upon itself forming a plural layer strip, the strip at its fold edge provided with parallel transverse notches dividing the strip into a plurality of tags, the notches adapted for cooperation with feeding devices, and the layers adhesively secured together along the longitudinal edges of the strip, the layers at the fold edge of the strip secured together a distance inwardly approximately corresponding to the depth of the notches, whereby each tag consists of a tag section having a plural-ply head portion and a one side gum coated ticket section severable from the tag section along a line at the end of the plural-ply head portion.

1,416,666. MOUTH WASH. EMANUEL LONDON, New York, N. Y. Filed Nov. 3, 1921. Serial No. 512,507. 2 Claims. (Cl. 167—9.)

1. A mouth wash containing chlorate of potash in quantities sufficient to act as a germicide, fluid extract of *Hamamelis virginiana* in quantities sufficient to act as an astringent, and alcohol in quantities sufficient to act as a cleanser.

2. A liquid mouth wash composed of ten parts of chlorate of potash, from sixty-five to one-hundred parts fluid extract of *Hamamelis virginiana* and twenty-five parts alcohol.

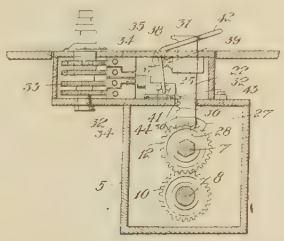
1,416,667. WHEEL-DRESSING MECHANISM. BENGT M. W. HANSON, Hartford, Conn., assignor to Pratt & Whitney Company, New York, N. Y., a Corporation of New Jersey. Filed July 31, 1918. Serial No. 247,636. 10 Claims. (Cl. 125—11.)



1. The combination with a grinding wheel rotatable about a longitudinal horizontal axis and a supporting means for the wheel, of an arm pivoted to the supporting means at the rear of the wheel, and a wheel dressing tool on the arm bodily movable therewith forward and downward into operative relation with the wheel or upward and backward out of operative relation with the wheel, the said tool being pivotally mounted on the arm for movement about an axis coincident with the central plane of the wheel and intersecting the wheel near the periphery when the tool is in operative relation thereto.

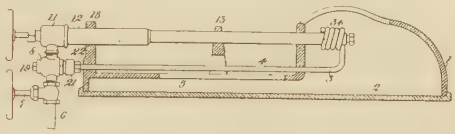
REISSUES.

15,353. LOCKING DEVICE FOR MOTOR VEHICLES. RICHARD BAER and HUGO KOPP, New York, N. Y. Filed Mar. 24, 1922. Serial No. 546,499. Original No. 1,391,358, dated Sept. 20, 1921, Serial No. 393,348, filed July 1, 1920. 14 Claims. (Cl. 70—90.)



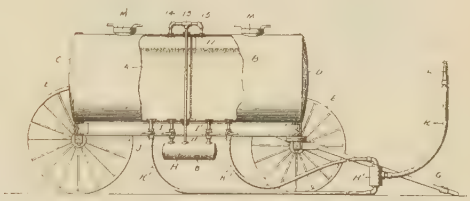
1. In combination with change speed mechanism, including rotatable power transmission elements, one of said elements being axially shiftable for connection and disconnection with respect to the other element; means for locking said elements against rotation when in disconnected relation.

15,354. AUTOMATIC FUEL CONTROL. GEORGE N. BLANCHARD, San Francisco, Calif., assignor to Colmar Burner Co., Inc., San Francisco, Calif., a Corporation of California. Filed Nov. 21, 1921. Serial No. 516,859. Original No. 1,387,583, dated Aug. 16, 1921, Serial No. 355,361, filed Jan. 31, 1920. 13 Claims. (Cl. 158—53.)



1. In combination with a generator tube adapted for operative connection at one end with a liquid fuel supply and having at its other end a gas outlet, of a valve for controlling the supply of fuel thereto, a thermostat extending parallel with and in close proximity to said generating tube and surrounding the same at the gas outlet end thereof for controlling the operation of said valve on said tube attaining a predetermined temperature, and means for adjusting said valve to operate at different predetermined temperatures of said tube.

15,355. APPARATUS FOR EXTINGUISHING FIRES. ORLANDO R. ERWIN and CURTIS B. FLORY, Forest Hills, N. Y., assignors to Foamite Firefoam Company, New York, N. Y., a Corporation of Delaware. Filed Feb. 11, 1922. Serial No. 535,668. Original No. 1,331,466, dated Feb. 17, 1920, Serial No. 150,301, filed Feb. 23, 1917. 10 Claims. (Cl. 169—14.)

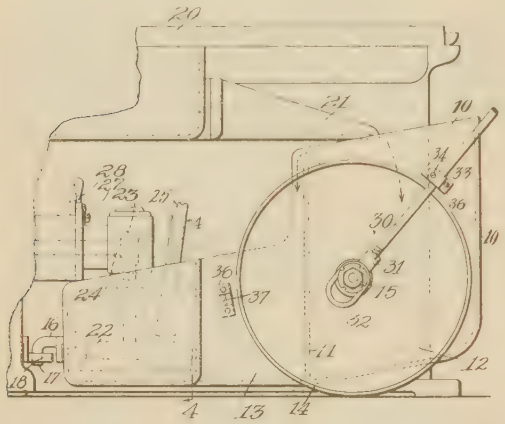


1. The method of extinguishing fires, consisting in mixing a portion of chemically reacting solutions in a closed receptacle to develop an ejecting pressure and utilizing said pressure to deliver the remainder of the chemically reacting solutions separately and in continuously flowing streams into mixing relation with each other, under pressure developed by the first mentioned mixture.

15,356. TRUCK FOR WASTE MATERIAL. CHARLES H. NORTON, Worcester, Mass., assignor to Norton Grinding Company, Worcester, Mass., a Corporation of Massachusetts. Filed July 22, 1919. Serial No. 312,578. Original No. 1,234,376, dated July 24, 1917, Serial No. 118,144, filed Sept. 1, 1916. 13 Claims. (Cl. 51—262.)

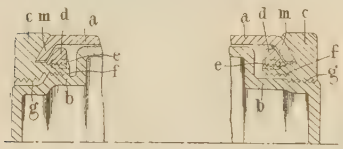
1. In a grinding machine, the combination of a movable tank, means including wheels for supporting the tank and permitting ready removal and cleaning thereof, a pump for circulating liquid from the tank to the machine, said pump having a conduit opening into said tank at a point adjacent to the bottom thereof and driv-

ing and supporting means for the pump permitting the latter to be moved from an operative position without



breaking the driving connections, whereby the tank may be removed for dumping the sediment therefrom.

15,357. DETACHABLE WHEEL. JOHN VERNON PUGH, Coventry, England, assignor, by mesne assignments, to Wire Wheel Corporation of America, a Corporation of New York. Filed Feb. 28, 1921. Serial No. 448,590. Original No. 1,296,316, dated Mar. 4, 1919, Serial No. 681,760, filed Mar. 5, 1912. 21 Claims. (Cl. 301—9.)



1. In combination in a detachable wheel two hub parts sleeved and connected to revolve together but subject to slight eccentric displacement, a circular nut subjected during said displacement to opposed radial forces imposed by said hub parts upon diametrically opposite sides of the axis, whereby said nut rotates relative to said parts during joint revolution, and screw threads so handed that the relative rotation tightens up the nut during forward movement.

15,358. VEHICLE WHEEL. ALDEN L. PUTNAM, Detroit, Mich., assignor, by mesne assignments, to Detroit Pressed Steel Company, Detroit, Mich., a Corporation of Delaware. Filed Mar. 26, 1920. Serial No. 369,120. Original No. 1,249,826, dated Dec. 11, 1917, Serial No. 108,801, filed July 12, 1916. 14 Claims. (Cl. 301—63.)

8. A vehicle wheel comprising a hub, a rim, and a dished disk extending therebetween and secured thereto, said disk being of a cross section tapering from the hub towards the rim and crossing the central plane of rotation or plane of impact, the ratio of the thickness to the radial length of said disk imparting thereto relative flexibility.

9. A vehicle wheel comprising a hub, a rim and a dished disk of outwardly tapering section extending therebetween and secured thereto, said disk having a portion of its dished surface approaching the central plane of rotation or plane of impact as it extends radially inward,

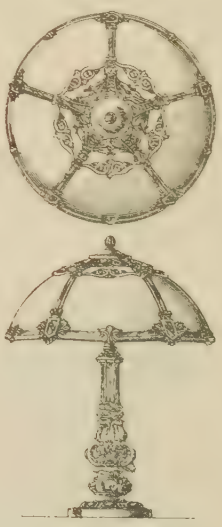
the ratio of the thickness to the radial length of said disk imparting thereto relative flexibility.

DESIGNS.

60,949. FINGER RING. GEORGE A. ALSOPP, Newark, N. J. Filed Aug. 11, 1921. Serial No. 491,591. Term of patent 3½ years.

The ornamental design for a finger ring, as shown.

60,950. LAMP. HARRY A. BEST, Chicago, Ill., assignor of one-half to H. A. Best Lamp Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 19, 1921. Serial No. 493,759. Term of patent 3½ years.



The ornamental design for a lamp as shown.

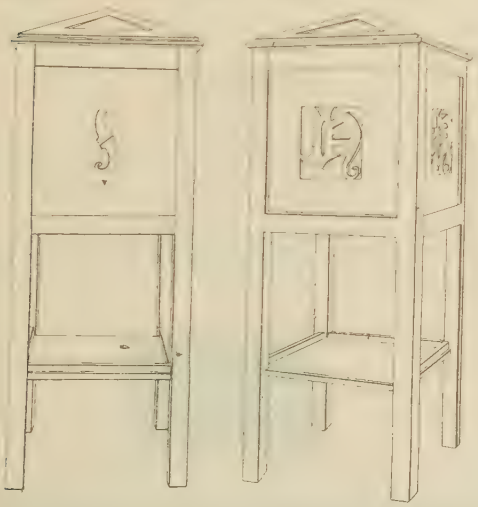
60,951. PHONOGRAPH CABINET. FRANK CUMMINGS, Chicago, Ill. Filed Apr. 14, 1921. Serial No. 461,418. Term of patent 7 years.

The ornamental design for a phonograph cabinet, as shown.

60,952. STATUETTE. LUCENE L. GOODENOW, Battle Creek, Mich. Filed Apr. 22, 1921. Serial No. 463,635. Term of patent 3½ years.

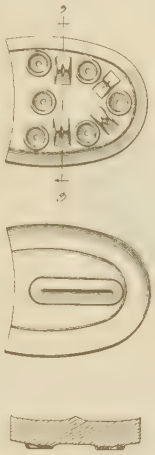
The ornamental design for a statuette, as shown.

60,953. PHONOGRAPH CABINET. WILLIAM B. HOLLINGSHEAD, Mount Vernon, N. Y. Filed Jan. 23, 1920. Serial No. 353,576. Term of patent 14 years.



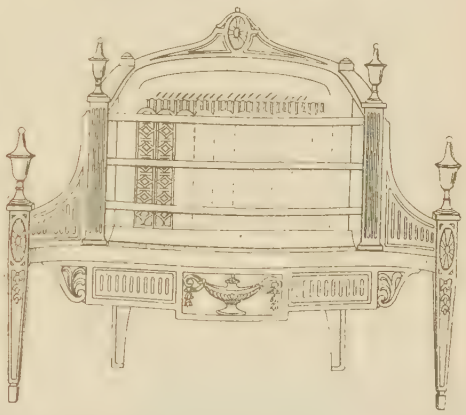
The ornamental design for a phonograph cabinet illustrated in the drawings.

60,954. RUBBER HEEL. FRANK HORNQUIST, Mount Jewett, Pa. Filed Jan. 16, 1922. Serial No. 218. Term of patent 14 years.



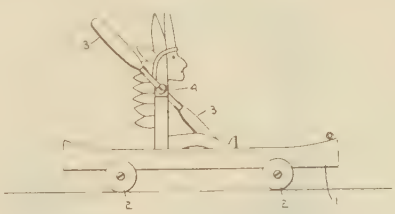
The ornamental design for a rubber heel, as shown.

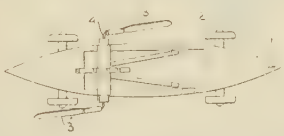
60,955. GAS HEATER. HUBERT R. HUMPHREY, Kalamazoo, Mich. Filed Sept. 27, 1921. Serial No. 503,621. Term of patent 14 years.



The ornamental design for a gas heater, as shown.

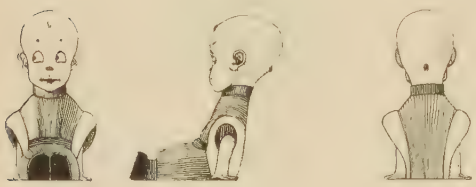
60,956. WHEELED TOY. JOHN C. JUTHE, Allston, Mass. Filed May 15, 1919. Serial No. 297,404. Term of patent 3½ years.





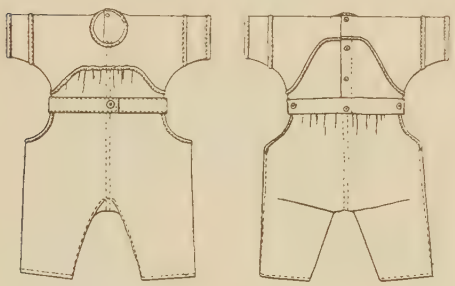
The ornamental design for a wheeled toy, as shown and described.

60,957. DOLL. SEIZO KODAMA, San Francisco, Calif., assignor of one-half to Hisano Kodama, San Francisco, Calif. Filed Oct. 10, 1921. Serial No. 506,885. Term of patent 3½ years.



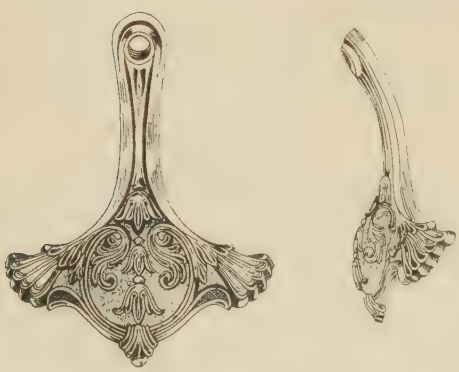
The ornamental design for a doll, as shown.

60,958. CHILD'S GARMENT. LOUIS KUH, San Francisco, Calif. Filed Mar. 14, 1921. Serial No. 452,323. Term of patent 14 years.



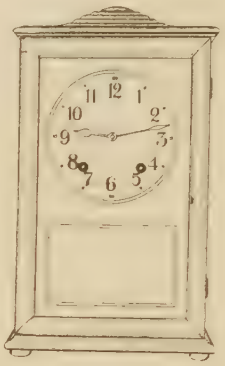
The ornamental design for a child's garment, as shown.

60,959. LIGHTING-FIXTURE ARM. LOUIS LEVINE, Brooklyn, N. Y. Filed Aug. 25, 1921. Serial No. 495,429. Term of patent 7 years.



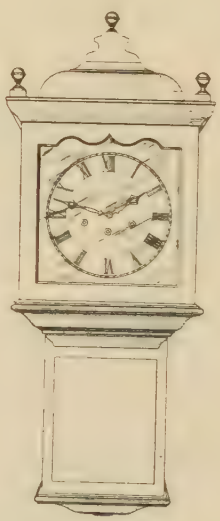
The ornamental design for a lighting fixture-arm, as shown.

60,960. CLOCK CASE. LEWIS E. MACOMBER, New York, N. Y., assignor to Seth Thomas Clock Co., Thomaston, Conn., a Corporation. Filed Feb. 13, 1922. Serial No. 673. Term of patent 7 years.



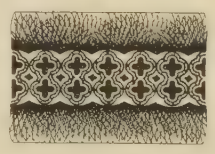
The ornamental design for a clock case as shown.

60,961. CLOCK CASE. LEWIS E. MACOMBER, New York, N. Y., assignor to Seth Thomas Clock Co., Thomaston, Conn., a Corporation. Filed Feb. 13, 1922. Serial No. 674. Term of patent 7 years.



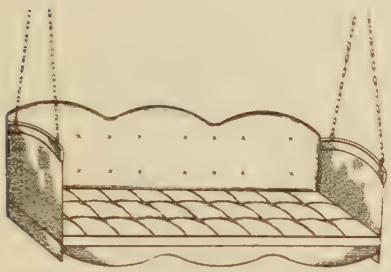
The ornamental design for a clock case as shown.

60,962. SEALING TAPE. ANNIE M. MALONE, St. Louis, Mo. Filed Oct. 3, 1921. Serial No. 505,188. Term of patent 14 years.



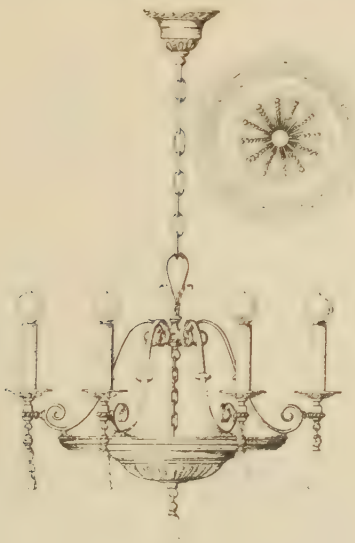
The ornamental design for a sealing tape, as shown.

60,963. HAMMOCK. HARRY MINTZ, Boston, Mass. Filed Sept. 17, 1921. Serial No. 501,463. Term of patent 7 years.



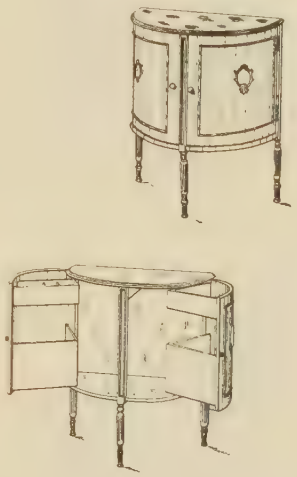
The ornamental design for a hammock substantially as shown.

60,964. LIGHTING FIXTURE. ROSCOE C. PFLEAGER, Cleveland, Ohio, assignor to Benjamin F. Klein, Cleveland, Ohio. Filed June 22, 1921. Serial No. 479,668. Term of patent 3½ years.



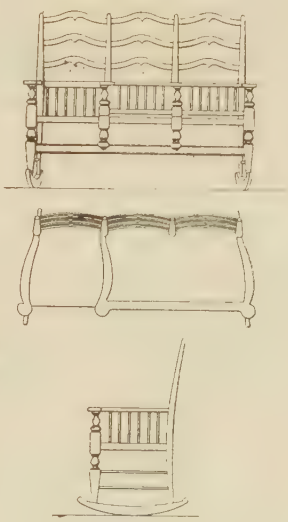
The ornamental design for a lighting fixture, substantially as shown.

60,965. SEWING CABINET. FRANK SCHOECK, Syracuse, N. Y. Filed July 26, 1921. Serial No. 487,721. Term of patent 3½ years.



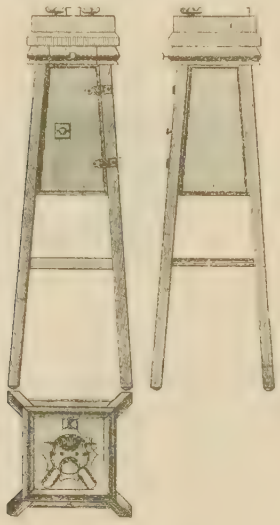
The ornamental design for a sewing cabinet as shown.

60,966. CRADLE CHAIR. WILLIAM FREDERICK SILLIMAN, Philadelphia, Pa. Filed Mar. 5, 1921. Serial No. 450,096. Term of patent 7 years.



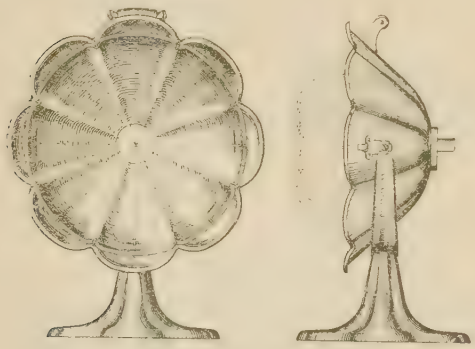
The ornamental design for a cradle chair substantially as shown.

60,967. SMOKER'S STAND. CHARLES D. SLOCUM, Topeka, Kans. Filed Feb. 3, 1921. Serial No. 442,311. Term of patent 3½ years.



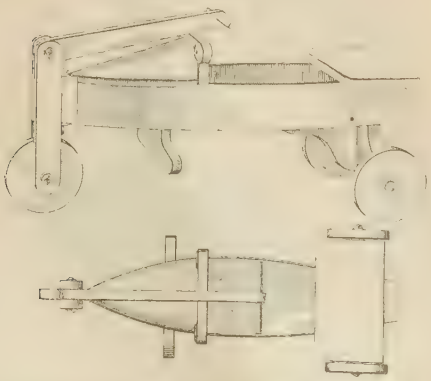
The ornamental design for a smoker's stand, as shown.

60,968. ELECTRIC HEATER. CHARLES F. SMITH and GEORGE E. CURTISS, New Britain, Conn. Filed Nov. 29, 1920. Serial No. 427,247. Term of patent 14 years.



The ornamental design for an electric heater as shown.

60,969. CHILD'S VEHICLE. CARL ADOLPH SUNDSTRAND, Rockford, Ill. Filed Oct. 27, 1921. Serial No. 510,977. Term of patent 14 years.



The ornamental design for a child's vehicle, as shown.

60,970. DOLL. HELEN F. TROWBRIDGE, Upper Montclair, N. J., assignor to E. I. Horsman & Aetna Doll Co. Inc., New York, N. Y., a Corporation of New York. Filed Oct. 18, 1921. Serial No. 508,618. Term of patent 7 years.

The ornamental design for a doll as shown.

60,971. TOY BALLOON. ARTHUR P. WITTEN, Akron, Ohio, assignor to The Western Reserve Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed Oct. 22, 1921. Serial No. 509,719. Term of patent 3½ years.

The ornamental design for a toy balloon substantially as shown.

TRADE-MARKS

OFFICIAL GAZETTE, MAY 16, 1922.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this publication.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 101,982. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BEAUTYAID COMPANY, Cincinnati, Ohio. Filed May 1, 1922.

Beautyaid

Particular description of goods.—Hair Tonic, Toilet Water, Perfume, Bath Powder, Tooth Liquid, Tooth Paste, Tooth Powder, Deodorant, Bath Tabloids, Sachet Powder, Shampoo, Toilet Powder.

Claims use since Oct. 1, 1914.

Ser. No. 114,932. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) TENNESSEE COAL, IRON & RAILROAD COMPANY, Birmingham, Ala., assignor to American Sheet & Tin Plate Company, a Corporation of New Jersey. Filed Dec. 31, 1918.

No claim being made for the words "Bamboo," "Brand," and "Steel" apart from the mark shown in the drawing.

Particular description of goods.—Plain, Corrugated, Round, Square, and Flat Iron and Steel Sheets, Plates, and Bars.

Claims use since Jan. 9, 1918.

Ser. No. 121,316. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE PERFEK'TONE CORPORATION, Philadelphia, Pa. Filed Aug. 6, 1919.

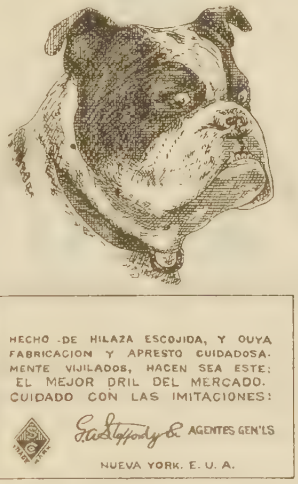
DUPLEX PERFEKTONE

The two words "Perfect Tone" are not claimed.

Particular description of goods.—Talking Machines and Parts.

Claims use since October, 1917.

Ser. No. 124,423. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) GEORGE ALBERT STAFFORD, doing business as G. A. Stafford & Co., New York, N. Y. Filed Oct. 31. 1919.


HECHO DE HILAZA ESCOJIDA, Y CUYA FABRICACION Y APRESTO CUIDADOSAMENTE VIJILADOS, HACEN SEA ESTE: EL MEJOR DRIL DEL MERCADO. CUIDADO CON LAS IMITACIONES:
G.A. Stafford & CO. AGENTES GEN'LS
NUEVA YORK. E. U. A.

No claim is made for the printed matter other than the letters "S." and "Co.," apart from the mark shown in the drawing. The background against which the pictorial representation of the head of a dog is shown is clear, and the head is printed in black. The upper half of the diamond-shaped figure is printed in red.

Particular description of goods.—Woven Cotton Fabrics in the Piece.

Claims use since Apr. 1, 1913.

Ser. No. 126,182. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) CEDAL SAWDUST CLEANSER COMPANY, Wilmington, Calif. Filed Dec. 17, 1919.

Particular description of goods.—Soap Paste, Known as "Cedal Sawdust Cleanser."

Claims use since Oct. 1, 1919.

Ser. No. 136,161. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) LESHER, WHITMAN & CO. INC., New York, N. Y. Filed Aug. 16, 1920.

SUNBURST

Particular description of goods. -Draperies and Upholsteries—Namely, Panel Curtains, Side Curtains, Window Curtains, Valances, Tapestries, and Textile Furniture Coverings.
Claims use since Nov. 14, 1910.

Ser. No. 137,557. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) AMERICAN INSULATOR COMPANY, New Freedom, Pa. Filed Sept. 24, 1920.

AICO

Particular description of goods.—Insulating Composition Materials for the Manufacture of Electrical and Heat Insulation in Molded Form and Plastic Insulating Compositions.
Claims use since December, 1916.

Ser. No. 137,967. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) SANDVIKENS JERNVERKS AKTIEBOLAG, Sandviken, Sweden. Filed Oct. 5, 1920.

Particular description of goods.—Articles of Iron and Steel Manufacture, Comprising Ingots, Blooms, Billets, Bars, Plates, Sheets, and Wire.
Claims use since Jan. 25, 1888.

Ser. No. 137,968. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) SANDVIKENS JERNVERKS AKTIEBOLAG, Sandviken, Sweden. Filed Oct. 5, 1920.

SANDVIK

Particular description of goods.—Articles of Iron and Steel Manufacture, Comprising Ingots, Blooms, Billets, Bars, Plates, Sheets, and Wire.
Claims use since Oct. 13, 1868.

Ser. No. 138,185. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS AND PARTS THEREOF.) THE PIERCE-ARROW MOTOR CAR COMPANY, Buffalo, N. Y. Filed Oct. 11, 1920.

Particular description of goods.—Change-Speed Transmissions and Parts Thereof.
Claims use since 1918.

Ser. No. 138,288. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) HENNING HAMMARLUND, Svängsta, Sweden. Filed Oct. 14, 1920.

SPEEDOGRAPH

Particular description of goods.—Speedometers.
Claims use since Feb. 1, 1919.

Ser. No. 139,685. (CLASS 12. CONSTRUCTION MATERIALS.) TWIN CITY BRICK COMPANY, St. Paul, Minn. Filed Nov. 15, 1920.

Golden Rod

Particular description of goods.—Brick.
Claims use since on or about Jan. 1, 1896.

Ser. No. 140,211. (CLASS 48. MALT BEVERAGES, EXTRACTS AND LIQUORS.) J. W. SAPPINGTON, doing business as the Two & Three Quarters Company, Fort Worth, Tex. Filed Nov. 26, 1920.

2¾

Particular description of goods.—Nonalcoholic Malt Cereal Beverage Sold as Soft Drinks Containing Less Than One-Half of One Per Cent of Alcohol, by Volume.
Claims use since on or about June 25, 1919.

Ser. No. 140,971. (CLASS 48. MALT BEVERAGES, EXTRACTS AND LIQUORS.) ALBERT WIELICH, doing business as the Premier Malt Sales Corp., New York, N. Y. Filed Dec. 11, 1920.

No claim is made to the exclusive use of the words "Malt Extract" apart from the mark as shown on the drawing.

Particular description of goods.—Malt Extracts.

Claims use since Nov. 15, 1920.

Ser. No. 141,752. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) BEACON MANUFACTURING COMPANY, Providence, R. I. Filed Jan. 3, 1921.

The crosshatching indicates shading and not color.

Particular description of goods.—Blankets; Plaid, Indian, Camping, Government, Army, Navy, Crib, and Bath-Robe Blankets; Jacquard Comfortables, Traveling Rugs and Baby Bags in the Nature of Coverings, Bath-Robe Flannel and Blanket Goods in the Piece, All Made Wholly of Cotton.

Claims use since June, 1906.

Ser. No. 141,797. (CLASS 12. CONSTRUCTION MATERIALS.) NORTH AMERICAN WOOD PRODUCTS CORPORATION, New York, N. Y. Filed Jan. 3, 1921.

Particular description of goods.—Wall Board, Blinds, Doors, Windows, Frames for Doors and Windows, Casings, Moldings, Mantels, Stairs; Wardrobes, Buffets, Bookcases, Cabinets, Desks, Drawer Cases, and Window Seats, Shipped in Sections to be Built in or Made Part of the Building; Partitions, Sash, Veneers, Lumber, Timbers, Shutters, Panels, Prepared Roofing, and Portable Houses.

Claims use since Nov. 3, 1920.

Ser. No. 142,137. (CLASS 39. CLOTHING.) EXPERT CAP MFG. CO. INC., Trenton, N. J. Filed Jan. 12, 1921.

No claim is made to the representation of the cap apart from the mark as shown.

Particular description of goods.—Silk, Felt, Cloth, and Fur Caps.

Claims use since July 19, 1920.

Ser. No. 143,526. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) ASSOCIATED COMMISSION CO., INC., New York, N. Y. Filed Feb. 14, 1921.

Particular description of goods.—Woolen, Worsted, Linen, Velvet, Haircloth, Venetian, Canvas, and Cotton Piece Goods.

Claims use since June 15, 1919.

Ser. No. 143,545. (CLASS 37. PAPER AND STATIONERY.) THE C. L. LA BOITEAUX COMPANY, Cincinnati, Ohio. Filed Feb. 14, 1921.

TYRO

Particular description of goods.—Strawboard, Box Board, Fiber Board, Pasted Chip Board, Pasted Strawboard, Backing Board, Plain Chip Board, Pasted Container Board, and Particularly Binders' Board.
Claims use since latter part of July, 1915.

Ser. No. 144,179. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE CLEVELAND CO-OPERATIVE STOVE CO., Cleveland, Ohio. Filed Mar. 1, 1921.

Grand

Particular description of goods.—Gas Ranges, Gas Heaters; Combination Ranges for Coal, Wood, and Gas; Combination Heaters for Coal, Wood, and Gas; Coal Ranges, Coal Cookstoves, Coal Heaters, and Furnaces and Parts Thereof.
Claims use since 1910.

Ser. No. 144,751. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) SMITH MANUFACTURING CO. INC., Ellensburg, Wash. Filed Mar. 14, 1921.

No claim being made to the words "Made by, The, Bicycle."
Particuar description of goods.—Toy Bicycle.
Claims use since Jan. 1, 1921.

Ser. No. 144,788. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) SUPERIOR BRASS N. C., New York, N. Y. Filed Mar. 15, 1921.

Particular description of goods.—Bathroom Shelving, Cup Racks, Soap Racks, Towel Racks, Toilet-Paper Racks, and Garment Hooks.
Claims use since February, 1912.

Ser. No. 144,841. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) BJORGE BROS., Detroit, Minn. Filed Mar. 17, 1921.

No claim is made to the words "Trade-Mark, No Escape We Never Sleep" or to the representation of the goods apart from the mark shown on the drawing.
Particular description of goods.—Insect Traps.
Claims use since Jan. 1, 1921.

Ser. No. 144,931. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MEMPHIS PACKING CORPORATION, Memphis, Tenn. Filed Mar. 18, 1921.

River-Side
BRAND

Particular description of goods.—Smoked Meats and Lard.
Claims use since Feb. 15, 1921.

Ser. No. 145,360. (CLASS 12. CONSTRUCTION MATERIALS.) THE RED RIVER LUMBER COMPANY, Minneapolis, Minn., and Westwood, Calif. Filed Mar. 28, 1921.

Particular description of goods.—Lumber—Namely, Pine, Fir, and Cedar Lumber.
Claims use since about Aug. 7, 1915.

Ser. No. 146,740. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) JOHN SHARP, doing business as She-ll Fire Spark Plug Co., Cleveland, Ohio. Filed Apr. 25, 1921.

"SHE-LL FIRE"

Trade-mark consists of the words "She-LL Fire."
Particular description of goods.—Ignition Accessories—Namely, Spark Plugs, Transformers, and Magnetos.
Claims use since about August, 1920.

Ser. No. 147,114. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) EDWARD A. LEWENTHAL, trading as Standard Motor Service Company, San Antonio, Tex. Filed May 2, 1921.

No claim being made to the words "Service Springs for All Cars," "Service," and "San Antonio, Texas" and the representation of a vehicle spring apart from the mark shown by drawing.
Particular description of goods.—Springs for Automotive Vehicles.
Claims use since Jan. 1, 1920.

Ser. No. 147,892. (CLASS 48. MALT BEVERAGES, EXTRACTS, AND LIQUORS.) M. C. ROSENFELD COMPANY, doing business as Standard Malt Product Co., Boston, Mass. Filed May 18, 1921.

NUTRIMALT

Particular description of goods.—Malt Extract.
Claims use since Mar. 4, 1921.

Ser. No. 148,189. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) ATLANTA SHEET METAL WORKS, Atlanta, Ga. Filed May 25, 1921.

Particular description of goods.—Skylights, Gutters, and Fire Doors, All Made of Sheet Metal.
Claims use since Dec. 28, 1919.

Ser. No. 148,453. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) POUDRERIES REUNIES DE BELGIQUE SOCIETE ANONYME, Brussels, Belgium. Filed May 31, 1921.

Particular description of goods.—Explosive Powders, Nitrated (Gun) Cotton, Dynamite Detonators, Electric Detonators, Safety Fuses, Cartridges, Firearms, Equipments, and Projectiles.
Claims use since Feb. 12, 1919.

Ser. No. 149,452. (CLASS 47. WINES.) GOLD SEAL PRODUCTS COMPANY, INC., Urbana, N. Y. Filed June 21, 1921.

GOLD SEAL.

Particular description of goods.—Champagues and Wines.
Claims use since Jan. 1, 1882.

Ser. No. 150,234. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FELIX GOULÉD, New York, N. Y. Filed July 11, 1921.

No claim being made to the representation of the various continents nor the words "Lamport Fabrics," "Lamport Fabric Drapes the World," "North America," "South America," "Africa," "Europe," "Asia," and "India" apart from the mark shown in drawing.

Particular description of goods.—Articles Made of Textile—Namely, Linen, Canvas, Cotton, and Sail Cloth. Said Goods Are in the Piece.

Claims use since Apr. 1, 1921.

Ser. No. 150,246. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MASURY-YOUNG COMPANY, Boston, Mass. Filed July 11, 1921.

No claim is made to the words "Trade Mark," "Wool Oil," and "196 Milk St., Boston" apart from the mark shown in the drawing.

Particular description of goods.—Wool Oils and Fulling and Scouring Oils.

Claims use since May, 1921.

Ser. No. 150,329. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) POLDINA HUT, továrna na kelímkovou ocel Crucible Steel Works, (also trading as Poldihütte Tiegelguszstahlfabrik,) Prague and Kladno, Czecho-Slovakia, assignor to the Firm Poldi Steel Corporation of America, New York, N. Y. Filed July 13, 1921.

VICTRIX

Particular description of goods.—Steel in Blocks and in Bars and Forgings for All Kind of Machines, Artisans' Tools, Cutting Tools, and Springs.

Claims use since Mar. 1, 1909.

Ser. No. 150,579. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE WILEY-BICKFORD-SWEET CO., Worcester, Mass. Filed July 18, 1921.

Lotta Wear

Particular description of goods.—Knitted Fabrics in the Piece.

Claims use since June 1, 1921.

Ser. No. 150,791. (CLASS 39. CLOTHING.) WORNOVA MFG. CO. INC., New York, N. Y. Filed July 21, 1921.

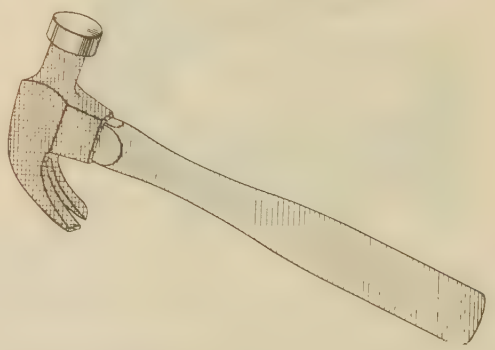
KIDDIE
WORNOVA
CLOTHES

The use of the words "Kiddie Clothes" is disclaimed apart from the trade-mark.

Particular description of goods.—Children's Rompers, Jumpers, Overalls, and Smocks.

Claims use since July 1, 1920.

Ser. No. 150,822. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) FAYETTE R. PLUMB, INCORPORATED, Philadelphia, Pa. Filed July 22, 1921.



The conventional lining shown indicates contrasting colors, the head being black with its operating face pol-

ished and the handles being stained red, no claim made to the representation of a hammer apart from the mark shown.

Particular description of goods.—Handled Hammers, Hatchets, Axes, Adzes, and Sledges.

Claims use since May 24, 1919.

Ser. No. 151,055. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN F. MURRAY, New York, N. Y. Filed July 28, 1921.

Particular description of goods.—Pharmaceutical Preparations for Stimulating Action of the Liver Cells.

Claims use since June 27, 1921.

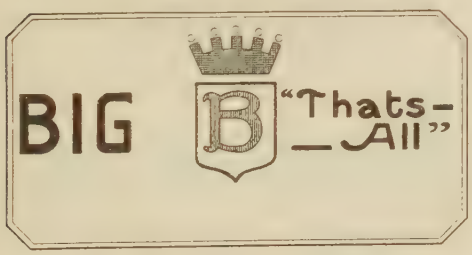
Ser. No. 151,075. (CLASS 39. CLOTHING.) JOHN BONWIT SKIRT CO., INC., New York, N. Y. Filed July 29, 1921.

BUNNY

Particular description of goods.—Ladies' and Misses' Outer Skirts.

Claims use since July 18, 1921.

Ser. No. 151,138. (CLASS 39. CLOTHING.) F. BRODY & SONS CO., Des Moines, Iowa. Filed July 30, 1921.



The "B" being in red and the crown being shown with crossed blue lines.

Particular description of goods.—Overalls, Dress, Work, Negligée, and Under Shirts; Men's, Women's, and Children's Underwear, Both Knitted and Textile Fabrics; Hosiery; Men's, Women's, and Children's Belts, and One-Piece Work Garments.

Claims use since Mar. 1, 1921.

Ser. No. 151,707. (CLASS 39. CLOTHING.) THE BELL CAP COMPANY, Philadelphia, Pa. Filed Aug. 12, 1921.

Particular description of goods.—Hats and Caps for Men, Women, and Children.

Claims use since Mar. 15, 1920.

Ser. No. 151,730. (CLASS 39. CLOTHING.) THEO. TIEDEMANN & SONS, INC., New York, N. Y. Filed Aug. 12, 1921.

IMPERIAL

Particular description of goods.—Men's Suits, Children's Suits, Women's Skirts, Waists, Suits, and Dresses, All of the Above Named Garments Being Outer Garments Constructed for and Used for Burial Purposes.

Claims use since 1891.

Ser. No. 151,754. (CLASS 39. CLOTHING.) THE CARLISLE GARMENT CO., Carlisle, Pa. Filed Aug. 13, 1921.

Molly Pitcher

Particular description of goods.—Women's and Children's Dresses.

Claims use since 1914.

Ser. No. 151,886. (CLASS 39. CLOTHING.) THE PERRY KNITTING COMPANY, Perry, N. Y. Filed Aug. 17, 1921.

White Seal

The words are woven in red on white fabric.

Particular description of goods.—Children's Knit Underwear.

Claims use since Aug. 1, 1910.

Ser. No. 151,924. (CLASS 39. CLOTHING.) THE PENNSYLVANIA KNITTING MILLS, Philadelphia, Pa. Filed Aug. 18, 1921.

"WHALE SHAKER"

Particular description of goods.—Sweaters.
Claims use since about January, 1921.

Ser. No. 152,053. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) ESTATE OF ROBERT BISHOP, doing business as The Robert Bishop Mfg. Co., Boston, Mass. Filed Aug. 22, 1921.

No claim being made to the words "Cotton Waste" and "Boston, Mass." apart from the mark shown on the drawing.
Particular description of goods.—Cotton Waste.
Claims use since Apr. 15, 1921.

Ser. No. 152,207. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE KANT-SKORE PISTON COMPANY, Cincinnati, Ohio. Filed Aug. 26, 1921.

Kant-Skore

Particular description of goods.—Pistons.
Claims use since on or about May 20, 1920.

Ser. No. 152,298. (CLASS 30. CLOTHING.) AMERICAN GARMENT CO., Indianapolis, Ind. Filed Aug. 29, 1921.

Particular description of goods.—Women's and Children's Aprons, Dresses, Nightgowns, and Children's Playsuits.
Claims use since May 29, 1905.

Ser. No. 152,373. (CLASS 39. CLOTHING.) J. HAYEM AND CIE., Paris, France. Filed Aug. 30, 1921.

Particular description of goods.—Collars, Cuffs, and Cravats for Men and Women, Knitted and Textile Underwear for Men and Women, and Outer Shirts for Men.
Claims use since 1830.

Ser. No. 152,383. (CLASS 39. CLOTHING.) THE ROYAL HAT CO., New York, N. Y. Filed Aug. 30, 1921.

The use of the words "Adjustable" and "Caps" which appear on the drawing is disclaimed apart from the mark shown.
Particular description of goods.—Boys' and Men's Caps.
Claims use since May 15, 1921.

Ser. No. 152,628. (CLASS 28. JEWELRY AND PRECIOUS METAL WARE.) JOSEPH E. MILLER, INC., Providence, R. I. Filed Sept. 6, 1921.

J E M

Trade-mark consists of the letters "J E M," the initials of the applicant corporation.
Particular description of goods.—Bracelets, Bar Pins, Brooches, Neck Chains, Watch Chains, Collar Buttons, Collar Pins, Cuff Links, Cuff Pins, Hat Pins, La Vallières, Lingerie Clasps, Finger Rings, and Scarf Pins Made Wholly or in Part of or Plated with Precious Metal.
Claims use since July 3, 1919.

Ser. No. 152,649. (CLASS 39. CLOTHING.) DANIEL T. PATTON AND COMPANY, Grand Rapids, Mich. Filed Sept. 6, 1921.

Principle

Particular description of goods.—Dress Shirts.
Claims use since Aug. 31, 1921.

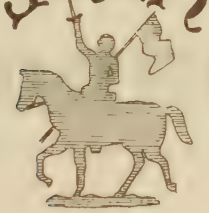
Ser. No. 152,650. (CLASS 39. CLOTHING.) DANIEL T. PATTON AND COMPANY, Grand Rapids, Mich. Filed Sept. 6, 1921.

TUF-E-NUF

Particular description of goods.—Work Shirts.
Claims use since Aug. 10, 1920.

Ser. No. 152,710. (CLASS 39. CLOTHING.) JOAN UNDERWEAR CORPORATION, New York, N. Y. Filed Sept. 8, 1921.

JOAN



Particular description of goods.—Silk, Satin, Crêpe de Chine, and Textile-Fabric Underwear for Men, Women, and Children.
Claims use since Jan. 2, 1921.

Ser. No. 152,737. (CLASS 39. CLOTHING. J. BLACH & SONS, Birmingham, Ala. Filed Sept. 9, 1921.

BLACHS
"F·L·P"

Particular description of goods.—Young Men's and Youths' Coats, Vests, Pants, and Overcoats.
Claims use since July 8, 1921.

Ser. No. 152,738. (CLASS 39. CLOTHING.) J. BLACH & SONS, Birmingham, Ala. Filed Sept. 9, 1921.

"F·L·P"

Particular description of goods.—Young Men's and Youths' Coats, Vests, Pants, and Overcoats.
Claims use since July 8, 1921.

Ser. No. 152,793. (CLASS 39. CLOTHING.) ELBRO KNITTING MILLS, Milwaukee, Wis. Filed Sept. 10, 1921

ELBRO

Particular description of goods.—Knitted Outerwear, Sweaters, Coats, Capes, Hockey Caps, Hoods, Bathing Suits, Jerseys, Skirts, Undershirts, Drawers, Rompers, and Hosiery.
Claims use since November, 1919.

Ser. No. 152,838. (CLASS 33. GLASSWARE.) JOSEPH ELIAS & CO. INC., New York, N. Y. Filed Sept. 12, 1921.

No claim being made to the word "Brand."
Particular description of goods.—Plate Glass, Rolled Glass, and Glass Having Wire Reenforcements.
Claims use since about Aug. 1, 1921.

Ser. No. 153,059. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) VENUS ARCH-SUPPORT COMPANY, Chicago, Ill. Filed Sept. 17, 1921.

RE-NU

Particular description of goods.—Dressings and Dry Cleaners Used on Fabrics, Leathers, and Other Materials.
Claims use since July 25, 1911.

Ser. No. 153,285. (CLASS 39. CLOTHING.) HUT NECKWEAR COMPANY, New York, N. Y. Filed Sept. 24, 1921.

"Spiraltex"

Particular description of goods.—Men's and Boys' Cravats.
Claims use since July 5, 1921.

Ser. No. 153,294. (CLASS 11. INKS AND INKING MATERIALS.) KEE LOX MANUFACTURING CO., Rochester, N. Y. Filed Sept. 24, 1921.

Flint

Particular description of goods.—Carbon Paper.
Claims use since about June 1, 1907.

Ser. No. 153,363. (CLASS 39. CLOTHING.) THE NATIONAL GARTER COMPANY, Cincinnati, Ohio. Filed Sept. 26, 1921.

NATIONAL
BROAD-WEAVE
GARTER

No claim is made herein to the exclusive use of the words "Broad-Weave" and "Garter" apart from the mark shown on drawing.
Particular description of goods.—Garters.
Claims use since Sept. 1, 1921.

Ser. No. 153,424. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARTUS.) ZALES BROS., New York, N. Y. Filed Sept. 27, 1921.

THE
ZEE ★ BEE

Particular description of goods.—Mantles for Incandescent Gaseous-Fuel Burners.
Claims use since Apr. 15, 1921.

Ser. No. 153,449. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE DOW CHEMICAL COMPANY, Midland, Mich. Filed Sept. 28, 1921.

BORDOW

Particular description of goods.—Fungicides Used for Spraying or Dusting Plants.
Claims use since February, 1921.

Ser. No. 153,540. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) CENTRAL RADIATOR COMPANY, New York, N. Y. Filed Sept. 30, 1921.

'RADIO'

Particular description of goods.—Combined Coal Hot-Water Heater and Open-Fire Grate.
Claims use since June, 1921.

Ser. No. 153,568. (CLASS 39. CLOTHING.) RICE-STIX DRY GOODS COMPANY, St. Louis, Mo. Filed Sept. 30, 1921.

NORTH
AMERICAN
GENTLEMAN

Particular description of goods.—Hosiery.
Claims use since Aug. 11, 1921.

Ser. No. 153,601. (CLASS 39, CLOTHING.) MAX HELD, INC., New York, N. Y. Filed Oct. 1, 1921.

FOLLOW THRU

Particular description of goods.—Sport Shirts for Women.
Claims use since Sept. 22, 1921.

Ser. No. 153,678. (CLASS 39. CLOTHING.) J. A. MIGEL INC., New York, N. Y. Filed Oct. 3, 1921.

FLO-TIL-LO

Particular description of goods.—Ladies' and Misses' Silk Shirt Waists; Suits, Blouses, Skirts, Dresses, Petticoats, Nightgowns, and Underwear Made of Textile Fabrics, and Bathing Suits Made of Silk; Men's and Boys' Dress Shirts, Neckties, Silk Sport Shirts, Pyjamas, Dressing Gowns, Nightgowns, Blouses, and Underwear Made of Textile Fabrics.
Claims use since July 1, 1921.

Ser. No. 153,679. (CLASS 39. CLOTHING.) J. A. MIGEL, INC. New York, N. Y. Filed Oct. 3, 1921.

FOLLOW-THRU

Particular description of goods.—Ladies' and Misses' Silk Shirt Waists; Suits, Blouses, Skirts, Dresses, Petticoats, Nightgowns, and Underwear Made of Textile Fabrics, and Bathing Suits Made of Silk; Men's and Boys' Dress Shirts, Neckties, Silk Sport Shirts, Pyjamas, Dressing Gowns, Nightgowns, Blouses, and Underwear Made of Textile Fabrics.
Claims use since July 14, 1921.

Ser. No. 153,680. (CLASS 39. CLOTHING.) J. A. MIGEL INC., New York, N. Y. Filed Oct. 3, 1921.

SUN AURA

Particular description of goods.—Ladies' and Misses' Silk Shirt Waists; Suits, Blouses, Skirts, Dresses, Petticoats, Nightgowns, and Underwear Made of Textile Fabrics, and Bathing Suits Made of Silk; Men's and Boys' Dress Shirts, Neckties, Silk Sport Shirts, Pyjamas, Dressing Gowns, Nightgowns, Blouses, and Underwear Made of Textile Fabrics.
Claims use since July 1, 1921.

Ser. No. 153,691. (CLASS 39. CLOTHING.) DOROTHY MEYERS ROBLES, Los Angeles, Calif. Filed Oct. 3, 1921.

"Pegy-Alls"

Particular description of goods.—Children's Frocks and Rompers for Outer Wear.
Claims use since Sept. 24, 1921.

Ser. No. 153,807. (CLASS 39. CLOTHING.) GOLITSKY, POSNER & HOCK, Bayonne, N. J. Filed Oct. 6, 1921.

No rights are asserted to the exclusive use of the word "Trousers" or the representation of the trousers apart from the mark as shown in drawing.
Particular description of goods.—Clothing consisting of Men's and Youths' Suits, Coats, Trousers, Vests, and Overcoats.
Claims use since Sept. 26, 1921.

Ser. No. 153,835. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ANTHONY NUTYPE COMPANY, INC., Baltimore, Md. Filed Oct. 7, 1921.

NUTYPE

Particular description of goods.—Type Cleanser.
Claims use since Sept. 15, 1921.

Ser. No. 153,939. (CLASS 37. PAPER AND STATIONERY.) SAMUEL JONES & COMPANY, Newark, N. J. Filed Oct. 10, 1921.

No claim being made to the words "Gummed Paper" apart from the mark shown.
Particular description of goods.—Gummed Paper—That is, Paper Coated on One Side with Mucilage or Gum and Used for Labels.
Claims use since May 10, 1921.

Ser. No. 154,185. (CLASS 39. CLOTHING.) GENERAL FOOTWEAR CO. INC., New York, N. Y. Filed Oct. 17, 1921.

Comfortoe

Particular description of goods.—Bathing Slippers, Bathing Shoes, and Boudoir Slippers Made of Leather, Fabric, and a Combination of Leather and Fabric.
Claims use since Sept. 15, 1921.

Ser. No. 154,289. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) TOLHURST MACHINE WORKS, Troy, N. Y. Filed Oct. 18, 1921. Under ten-year proviso.

TOLHURST

Particular description of goods.—Centrifugal Drying Machines, Also Known as Hydro-Extractors.
Claims use since 1878.

Ser. No. 154,324. (CLASS 39. CLOTHING.) FRANCES ROSE, Washington, D. C. Filed Oct. 19, 1921. Under ten-year proviso.

Rose

Particular description of goods.—Ladies' Hats and Furs.
Claims use since 1881.

Ser. No. 154,391. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) TREADWELL ENGINEERING COMPANY, Easton, Pa. Filed Oct. 20, 1921.

TREADWELL

Particular description of goods.—Machinery—Namely, Pipe-Bending Machines, Hoists Cableways, Rolling Mills, Gear Drives, Rope Drives, Chain Conveyers, Rope Transfers, Roller Tables, Hotbeds, Plate Turnovers, Shears, Rod Mills, and Hydraulic Accumulators.
Claims use since about Feb. 1, 1921.

Ser. No. 154,410. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANK J. KOZLOWSKI, Detroit, Mich. Filed Oct. 21, 1921.

Particular description of goods.—Proprietary Medicines—Namely, Pain Expeller, Stomach, and Bowel Remedies.
Claims use since June 24, 1920.

Ser. No. 154,421. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) SPRAY ENGINEERING COMPANY, Boston, Mass. Filed Oct. 21, 1921.

FIRE-FOG

Particular description of goods.—Water and Other Liquid Spraying Systems and Parts of Said Systems.
Claims use since Sept. 26, 1921.

Ser. No. 154,785. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WM. W. BAIRD, doing business as Heyfema Company, Columbus, Ga. Filed Oct. 31, 1921.

Heyfema

Particular description of goods.—Medicine for the Treatment of Hay Fever and Colds.
Claims use since Jan. 9, 1921.

Ser. No. 154,890. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE W. TERRY, Greenfield, Mass. Filed Nov. 1, 1921.

INDELAC

Particular description of goods.—Compound for the Treatment of Barbers' Itch, Poison Ivy, Dogwood Poison, Blood Poison, and Skin Disease.
Claims use since Oct. 15, 1921.

Ser. No. 154,995. (CLASS 12. CONSTRUCTION MATERIALS.) RUTLAND FIRE CLAY CO., Rutland, Vt. Filed Nov. 3, 1921.

The lining on drawing denotes shading.
Particular description of goods.—Patching Plaster for Walls.
Claims use since 1905.

Ser. No. 155,037. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) WOOLEATHER CORP., Salem, Mass. Filed Nov. 4, 1921.

Dust-O-Mit

Particular description of goods.—Dusting Brooms, Dusting Brushes, and Wool Dusters.
Claims use since Oct. 27, 1921.

Ser. No. 155,119. (CLASS 38. PRINTS AND PUBLICATIONS.) THE RHODES-MARDEN CORPORATION, New York, N. Y. Filed Nov. 7, 1921.

We disclaim "New York" which appears on the drawing.
Particular description of goods.—Booklets and Small Text Cards Issued from Time to Time.
Claims use since Sept. 20, 1921.

Ser. No. 155,161. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN D'ANNA, New York, N. Y. Filed Nov. 8, 1921.

Jodalbo

Particular description of goods.—Medicine for General Tonic Purposes, Especially for Rheumatism.
Claims use since Jan. 1, 1911.

Ser. No. 155,263. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) IDA B. JEFFERSON, Longview, Tex. Filed Nov. 10, 1921.

The portrait is that of the applicant.
Particular description of goods.—Liniment for External Use for Rheumatism or Sore Joints, for Corns, and for Toothache; a Hair Grower and Pressing Oil, and a Tonic Made from Roots and Herbs and Intended for General Use.
Claims use since about Nov. 15, 1918.

Ser. No. 155,366. (CLASS 39. CLOTHING.) BENJAMIN ROSS, Brooklyn, N. Y. Filed Nov. 14, 1921.

No claim is made to the representation of an element used in the construction of applicant's footwear apart from the mark shown on the drawing.

Particular description of goods.—Shoes and Boots of Leather.

Claims use since Nov. 1, 1921.

Ser. No. 155,368. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) SIMPLEX TIRE & RUBBER COMPANY, Chicago, Ill. Filed Nov. 14, 1921.

The lines on drawing are not intended to denote color. These lines merely show shading as it appears upon the specimens or facsimiles filed.

Particular description of goods.—Pneumatic Rubber Tires.

Claims use since on or about Jan. 1, 1921.

Ser. No. 155,386. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) BRYAN & SANDBACH, Jersey City, N. J. Filed Nov. 15, 1921.

Particular description of goods.—A Coaster Car for Children.

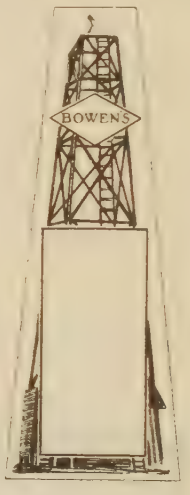
Claims use since July, 1921.

Ser. No. 155,427. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) LLOYD BISSELL, doing business as Star Piston Pin Co., Buffalo, N. Y. Filed Nov. 16, 1921.

Particular description of goods.—Piston Pins.

Claims use since Nov. 3, 1921.

Ser. No. 155,477. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EDWARD J. BOWEN, doing business as The Genuine Crude Oil Company, New York, N. Y. Filed Nov. 17, 1921.



Particular description of goods.—Hair Grower and Shampoo.

Claims use since Nov. 7, 1921.

Ser. No. 155,497. (CLASS 12. CONSTRUCTION MATERIALS.) LEANDER DOUGLAS HARTER, Oklahoma, Okla. Filed Nov. 17, 1921.

MARBLECRETE

Particular description of goods.—Artificial Stone Used Principally for Building Construction and a Composition for Making Artificial Stone.

Claims use since May, 1914.

Ser. No. 155,573. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) C. W. REYNOLDS, New York, N. Y. Filed Nov. 18, 1921.

REYNOLDS HYDRAULIC JACK

No claim is made to the words "Hydraulic Jack" apart from the mark shown.

Particular description of goods.—Hydraulic Jacks.

Claims use since about September, 1921.

Ser. No. 155,617. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MORRIS HELLER, doing business as Venice Importing Co., New York, N. Y. Filed Nov. 19, 1921.

CARUSO

The portrait shown is that of Enrico Caruso, deceased.
Particular description of goods.—Olive Oil.
Claims use since Sept. 8, 1921.

Ser. No. 155,669. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) D-REX-U SAFETY SIGNAL COMPANY, Kansas City, Mo. Filed Nov. 21, 1921.

D-REX-U

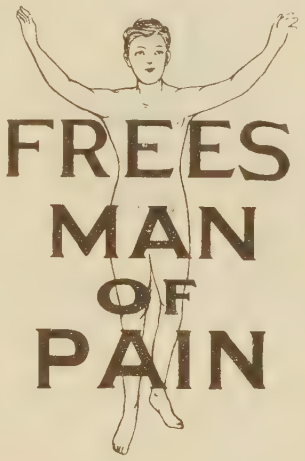
Particular description of goods.—Electrically-Operated Visible Traffic Signals for Use on Automotive Vehicles.
Claims use since Oct. 22, 1921.

Ser. No. 155,675. (CLASS 39. CLOTHING.) FREEDMAN & Co., Harrisburg, Pa. Filed Nov. 21, 1921.

NEPTUNE

Particular description of goods.—Hosiery.
Claims use since Sept. 23, 1921.

Ser. No. 155,679. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) A. JAY FREEMAN, Chicago, Ill. Filed Nov. 21, 1921.



No claim is made to the words "Frees Man of Pain" apart from the mark as shown.
Particular description of goods.—Liniment to be Used for the Treatment of Sprains, Bruises, Stiff Neck, Mosquito Bites, Lumbago, Muscular Rheumatism, Neuralgia, Sciatica, Chilblains, Muscular Cramps, Wind Colic, Acute Pleurisy, Bronchial Cough, and Spasmodic Croup.
Claims use since July 1, 1921.

Ser. No. 155,684. (CLASS 39. CLOTHING.) DAVID S. GOLDSTEIN & Co., Chicago, Ill. Filed Nov. 21, 1921.

Particular description of goods.—Coats, Jackets, Vests, Waistcoats, Trousers, Knickerbockers, Overcoats, Topcoats, and Suits.
Claims use since Sept. 1, 1920.

Ser. No. 155,720. (CLASS 39. CLOTHING.) H. H. WOOD & COMPANY, Laconia, N. H. Filed Nov. 21, 1921.

No claim being made to the word "Hose," and "Wears Like Granite" apart from the mark shown in drawing.
Particular description of goods.—Hosiery.
Claims use since June 1, 1921.

Ser. No. 155,747. (CLASS 39. CLOTHING.) GLOTEX HOSIERY CO., New York, N. Y. Filed Nov. 22, 1921.

Particular description of goods.—Hosiery.
Claims use since August, 1921.

Ser. No. 155,825. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) N. AND H. COMPANY, Kansas City, Kans. Filed Nov. 23, 1921.

Particular description of goods.—Vermifuge.
Claims use since Nov. 14, 1921.

Ser. No. 155,831. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES F. ROOT, doing business as Suaveline Mfg. Co., New York, N. Y. Filed Nov. 23, 1921.

SUAVELINE

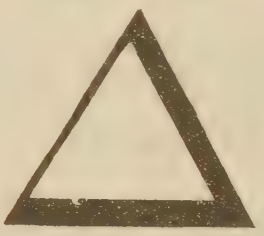
Particular description of goods.—Lotion for Dressing the Hair.
Claims use since Aug. 1, 1921.

Ser. No. 155,955. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN R. CARR, Philadelphia, Pa. Filed Nov. 26, 1921.

CARR'S
INDIGESTION
CHASER

Particular description of goods.—A Certain Medicinal and Pharmaceutical Preparation for Use as a Treatment for Indigestion.
Claims use since on or about Oct. 1, 1921.

Ser. No. 155,970. (CLASS 38. PRINTS AND PUBLICATIONS.) OTHO F. JAMES, doing business as Delta Tours, Washington, D. C. Filed Nov. 26, 1921.



DELTA TOURS

Particular description of goods.—Travel Pamphlets, Maps, and Guidebooks Published from Time to Time.
Claims use since Nov. 1, 1909.

Ser. No. 156,037. (CLASS 39. CLOTHING.) VAN RAALTE COMPANY, INC., New York, N. Y. Filed Nov. 28, 1921.

"Matestripe"

Particular description of goods.—Hosiery.
Claims use since Aug. 1, 1920.

Ser. No. 156,110. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS AND PARTS THEREOF.) SOCIETE DE MECANIQUE DE GENNEVILLIERS, Paris, France. Filed Nov. 30, 1921.

DUPLEX

S M G

Particular description of goods.—Ball and Roller Bearings and Thrust Bearings.
Claims use since about July 8, 1921.

Ser. No. 156,123. (CLASS 39. CLOTHING.) WILSON PROCESS, INC., New York, N. Y. Filed Nov. 30, 1921.

WILSON SEWED

No exclusive claim is made to the word "Sewed" apart from the mark as shown.
Particular description of goods.—Boots and Shoes Made Wholly or in Part of Leather, Canvas, or Textile Materials.
Claims use since Nov. 1, 1921.

Ser. No. 156,130. (CLASS 39. CLOTHING.) ARR TEE KNITTING MILLS, Philadelphia, Pa. Filed Dec. 1, 1921.

ROAMER

Particular description of goods.—Knitted Sweaters.
Claims use since December, 1920.

Ser. No. 156,154. (CLASS 39. CLOTHING.) ELY & WALKER DRY GOODS COMPANY, St. Louis, Mo. Filed Dec. 1, 1921.

Floradora

Particular description of goods.—Leather Gloves, Fabric Gloves, and Mittens.
Claims use since Dec. 1, 1920.

Ser. No. 156,155. (CLASS 39. CLOTHING.) ELY & WALKER DRY GOODS COMPANY, St. Louis, Mo. Filed Dec. 1, 1921.

STAND-BY

Particular description of goods.—Leather Gloves, Fabric Gloves, and Mittens.
Claims use since Dec. 1, 1920.

Ser. No. 156,170. (CLASS 39. CLOTHING.) MYERS MANUFACTURING CO., Los Angeles, Calif. Filed Dec. 1, 1921.

HUG-SNUG

Particular description of goods.—Bathing Suits.
Claims use since on or about Oct. 15, 1921.

Ser. No. 156,199. (CLASS 39. CLOTHING.) GEORGE A. RIPLEY, doing business as Ripley Shirt Manufacturing Company, Dallas, Tex. Filed Dec. 2, 1921.

Owl

Particular description of goods.—Men's Dress Shirts.
Claims use since about Aug. 15, 1920.

Ser. No. 156,212. (CLASS 39. CLOTHING.) COPELOF, STILLMAN & CO. INC., New York, N. Y. Filed Dec. 3, 1921.

"Youthlook"

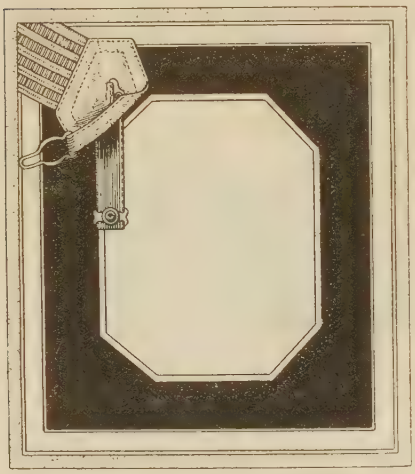
Particular description of goods.—Dresses, Coats, Cloaks, Suits, and Evening Wraps for Women.
Claims use since Nov. 1, 1921.

Ser. No. 156,288. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) EDWARD N. MOOR, Jr., doing business as Gas Motor Parts Company, San Francisco, Calif. Filed Dec. 5, 1921.

STAR G GAUGE

Particular description of goods.—Wrist Pins.
Claims use since July 1, 1921.

Ser. No. 156,303. (CLASS 39. CLOTHING.) STAR SUSPENDER CO., Philadelphia, Pa. Filed Dec. 5, 1921.



No claim being made to the representation of a portion of a garter apart from the mark shown in the drawing.

Particular description of goods.—Garters.
Claims use since on or about May 1, 1921.

Ser. No. 156,307. (CLASS 39. CLOTHING.) MICHAELS STERN & CO., Rochester, N. Y. Filed Dec. 5, 1921.

Value First

Particular description of goods.—Men's and Boys' Suits and Overcoats.
Claims use since April, 1919.

Ser. No. 156,308. (CLASS 39. CLOTHING.) MICHAELS STERN & CO., Rochester, N. Y. Filed Dec. 5, 1921.

Particular description of goods.—Men's and Boys' Suits and Overcoats.
Claims use since April, 1919.

Ser. No. 156,449. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) INTERNATIONAL SALT CO. OF NEW YORK, New York, N. Y. Filed Dec. 8, 1921.

SUPERIOR

Particular description of goods.—Salt.
Claims use since 1895.

Ser. No. 156,476. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) BEAR MANUFACTURING CO., Rock Island, Ill. Filed Dec. 9, 1921.

BEAR

Particular description of goods.—Antiskid Chains.
Claims use since Feb. 27, 1917.

Ser. No. 156,554. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) P. C. TOMSON & CO., Philadelphia, Pa. Filed Dec. 10, 1921.

Particular description of goods.—Lye.
Claims use since Nov. 1, 1911.

Ser. No. 156,556. (CLASS 12. CONSTRUCTION MATERIALS.) G. H. VOTER, INC., Boston, Mass. Filed Dec. 10, 1921.

HYKLAS

Particular description of goods.—Roofing Materials—Namely, Asphalt Saturated Felt Roofings, Roofing Pitch, and Roofing Felt.
Claims use since Jan. 28, 1921.

Ser. No. 156,563. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) EDMUND BRUDER, Chicago, Ill. Filed Dec. 12, 1921.

Particular description of goods.—Game Boards, Game Indicator, Game Counter, Game Piece, and Games Played with a Counter, Indicator, or Game Piece.
Claims use since August, 1921.

Ser. No. 156,597. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HOLGER PETTERSEN, doing business as Pett Products Co., Chicago, Ill. Filed Dec. 12, 1921.

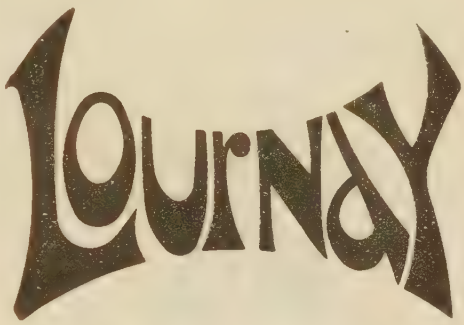
Particular description of goods.—Cough Drops and Cough Candy.
Claims use since Apr. 1, 1921.

Ser. No. 156,640. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED. KAY BROTHERS, LIMITED, Stockport, England. Filed Dec. 13, 1921

CORCON

Particular description of goods.—Fly Papers and Fly-catchers.
Claims use since 1915.

Ser. No. 156,645. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LOURNAY, INC., New York, N. Y. Filed Dec. 13, 1921.



Particular description of goods.—Rouge, Cold Cream, Lip Stick, Toilet Water, Talcum Powder, and Perfume
Claims use since Oct. 20, 1920.

Ser. No. 156,646. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LOURNAY, INC., New York, N. Y. Filed Dec. 13, 1921.

Particular description of goods.—Rouge, Cold Cream, Lip Stick, Toilet Water, Talcum Powder, and Perfume,
Claims use since Oct. 20, 1920.

Ser. No. 156,647. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LOURNAY, INC., New York, N. Y. Filed Dec. 13, 1921.

FLEUR VIVANT

Particular description of goods.—Rouge, Cold Cream, Lip Stick, Toilet Water, Talcum Powder, and Perfume.
Claims use since Oct. 20, 1920.

Ser. No. 156,648. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LOURNAY, INC., New York, N. Y. Filed Dec. 13, 1921.

L'ILE D'AMOUR

Particular description of goods.—Rouge, Cold Cream, Lip Stick, Toilet Water, Talcum Powder, and Perfume.
Claims use since Oct. 20, 1920.

Ser. No. 156,649. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LOURNAY, INC., New York, N. Y. Filed Dec. 13, 1921.

Qui Sait

Particular description of goods.—Rouge, Cold Cream, Lip Stick, Toilet Water, Talcum Powder, and Perfume.
Claims use since Oct. 20, 1920.

Ser. No. 156,691. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAX HERBST, doing business as Herbine Chemical Co., New York, N. Y. Filed Dec. 14, 1921.

HERBINE

Particular description of goods.—Active Astringent, Antiseptic, and Deodorant Mouth Wash.
Claims use since Nov. 1, 1921.

Ser. No. 156,746. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) T. G. KOHL COMPANY, Wausau, Wis. Filed Dec. 15, 1921.

ANKO

Particular description of goods.—Chimney Cleaners.
Claims use since Aug. 20, 1921.

Str. No. 156,796. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) MITCHELL & DILLON COAL COMPANY, Chicago, Ill. Filed Dec. 16, 1921.

JASON

Particular description of goods.—Coal.
Claims use since Nov. 15, 1921.

Ser. No. 156,837. (CLASS 32. FURNITURE AND UPHOLSTERY.) LOUX SONS, Philadelphia, Pa. Filed Dec. 17, 1921. Under ten-year proviso.

LOUX

Particular description of goods.—Household, Office, and Porch Furniture—Namely, Davenports, Wooden and Upholstered Chairs, Day Beds, Couches, Sofas, Armchairs, Smoking Stands, Humidors, Cellarettes, Tea Wagons, Wooden Umbrella Stands, Buffets, Sideboards, China Closets, Serving Tables, Dining-Room Tables, Dining-Room

Chairs; Kitchen Tables, (Wood and Metal;) Kitchen Chairs, Kitchen Cabinets, Bureaus, Dressing Tables, Vanity Tables, Chifforobes, Chiffoniers, Night Tables; Beds, (Wooden, Iron, Steel and Brass;) Library Tables, Window Shades, Cedar Chests, Medicine Cabinets, Toilet and Hand Mirrors, Bookcases, Desks, Typewriter Desks, Office Chairs, Mattresses, Bed Springs, Pillows, and Bolsters.

Claims use since March, 1889.

Ser. No. 156,870. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) UNITED SHOE MACHINERY CORPORATION, Paterson, N. J., and Boston, Mass. Filed Dec. 17, 1921.

U.S.M.CO.

Trade mark consists of the letters "U. S. M. Co."

Particular description of goods.—Machines and Parts Thereof and Tools Used in the Manufacture of Boots and Shoes, Comprising Lasting Machines, Fastening-Inserting Machines, Buttonhole-Making Machines, Buttonhole-Finishing Machines, Edge-Trimming Cutters, Edge-Setting Irons, and Burnishing Irons.

Claims use since 1900.

Ser. No. 156,954. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) ALLOY FOUNDRY AND MACHINE CORPORATION, New Rochelle, N. Y. Filed Dec. 20, 1921.

ALUMAT

Particular description of goods.—Step Plates.

Claims use since Nov. 1, 1920.

Ser. No. 156,999. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EDWARD L. MITTELSTAEDT, doing business as Mocq, Burnier & Cie., Inc., New York, N. Y. Filed Dec. 21, 1921.

PERF

Particular description of goods.—Perfume Extracts and Toilet Waters.

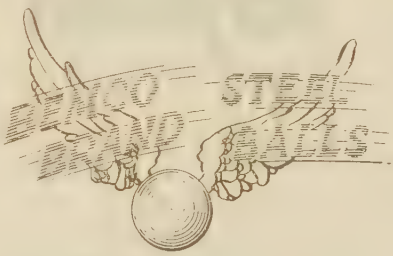
Claims use since Dec. 1, 1921.

Ser. No. 157,117. (CLASS 10. FERTILIZERS.) TEXAS GULF SULPHUR COMPANY, New York, N. Y. Filed Dec. 24, 1921.

Particular description of goods.—Sulphur and Sulphur Inoculated with Bacteria.

Claims use since Nov. 29, 1921.

Ser. No. 157,129. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THEODORE R. BERGMAN, doing business as Bemco Manufacturing Company, New York, N. Y. Filed Dec. 27, 1921.



No claim being made to the words "Brand" and "Steel Balls" apart from the mark shown in the drawing.

Particular description of goods.—Steel Balls.

Claims use since December, 1916.

Ser. No. 157,154. (CLASS 39. CLOTHING.) A. E. LITTLE CO., Lynn, Mass. Filed Dec. 27, 1921.

No claim being made to the exclusive use of the words "Shoe for Boys and Girls" apart from the mark shown.

Particular description of goods.—Boots and Shoes of Leather and Leather and Cloth.

Claims use since Nov. 15, 1921.

Ser. No. 157,218. (CLASS 38. PRINTS AND PUBLICATIONS.) NEIL DIVIR, doing business as "N. Divir," New York, N. Y. Filed Dec. 28, 1921.

No claim being made to the exclusive use of the words For Success," "Health," "Happiness," and "Long Life" apart from the mark as shown in the drawing.

Particular description of goods.—Periodical Publications—Namely, Charts and Books Published at Irregular Intervals.

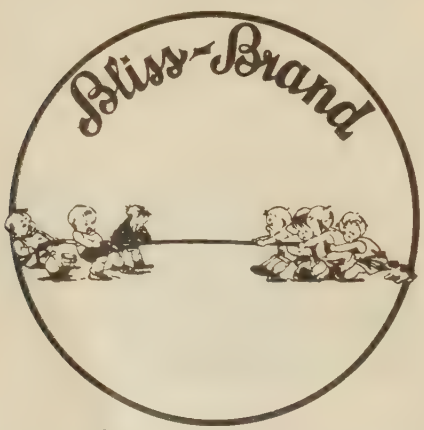
Claims use since Dec. 20, 1921.

Ser. No. 157,252. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BOYCE & VEEDER COMPANY, INC., Long Island City, N. Y. Filed Dec. 29, 1921.

Particular description of goods.—Portable Fire Extinguishers.

Claims use since about May 30, 1921.

Ser. No. 157,353. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) WM. B. BLISS JR. & CO., New York, N. Y., assignor to Wm. B. Bliss Jr. & Co., Incorporated, New York, N. Y., a Corporation of New York. Filed Dec. 31, 1921.



No claim to the exclusive use of the word "Brand" apart from the mark shown in the drawing.

Particular description of goods.—Woven and Braided Narrow Fabrics—Namely, Tapes, Elastics, Braids, Bindings, Webbings, Edgings, Hercules, Rickrack; Lacings—Namely, Middy Laces, Corset Laces, Shoe Laces; Soutache, Cords, Tassels, and Featherstitch Trimmings.

Claims use since Oct. 10, 1921.

Ser. No. 157,399. (CLASS 27. HOROLOGICAL INSTRUMENTS.) KEITH-LANDIS CORPORATION, Chicago, Ill. Filed Dec. 30, 1921.

KEITH~LANDIS

The words "Keith Landis" are disclaimed except in connection with the mark shown.

Particular description of goods.—Clocks and Watches.

Claims use since on or about Sept. 22, 1921.

Ser. No. 157,439. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE NATIONAL TOOL COMPANY, Cleveland, Ohio. Filed Jan. 3, 1922.

SOLIDATED

Particular description of goods.—Milling Cutters, Reamers, Counterbores, Special Metal-Working Small Tools Made to Order.

Claims use since on or about Sept. 28, 1921.

Ser. No. 157,440. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) OTTO OSTEN, Chicago, Ill. Filed Jan. 3, 1922.

TON-SIL

Particular description of goods.—Bleaching Materials.

Claims use since on or about Dec. 1, 1921.

Ser. No. 157,514. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) GEORGE K. CULP, INC., Wilmington, Del., and New York, N. Y. Filed Jan. 5, 1922.

CULP PLAN

Particular description of goods.—Vehicle Tires Wholly or Partly of Rubber, Particularly Solid Tires and Casings and Inner Tubes of Pneumatic Tires.

Claims use since April, 1921.

Ser. No. 157,544. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) ALMA MANUFACTURING CO. OF BALTIMORE CITY, Baltimore, Md. Filed Jan. 5, 1922.

"TWIN-BUCKLE"

No claim being made to the word "Buckle" apart from the mark shown.

Particular description of goods.—Suspender Buckles, Buckles for Men's and Boys' Clothing.

Claims use since on or about Dec. 10, 1921.

Ser. No. 157,618. (CLASS 48. MALT BEVERAGES, EXTRACTS, AND LIQUORS.) GOTTFRIED KRUEGER BREWING COMPANY, Newark, N. J. Filed Jan. 7, 1922.

MIXIT

Particular description of goods.—Malt and Hop Extract for Beverages.

Claims use since about Oct. 15, 1921.

Ser. No. 157,643. (CLASS 39. CLOTHING.) L. Q. WHITE SHOE CO., Bridgewater, Mass. Filed Jan. 7, 1922.

BUOYANT

Particular description of goods.—Rubber Heels.

Claims use since Dec. 21, 1921.

Ser. No. 157,730. (CLASS 39. CLOTHING.) THOMAS G. PLANT COMPANY, Boston, Mass. Filed Jan. 10, 1922.

EASY FOOT

Particular description of goods.—Boots, Shoes, and Slippers of Leather, Rubber, Felt, Silk, Cloth, or Other Fabric Construction.

Claims use since about April, 1918.

Ser. No. 157,765. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHNSON & SONS, New York, N. Y., and London, England. Filed Jan. 11, 1922.

VEDOL

Particular description of goods.—Photographic Chemicals.

Claims use since Jan. 11, 1921.

Ser. No. 157,830. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANNIE A. DENNEY, Philadelphia, Pa. Filed Jan. 12, 1922.

TANGORINE

Particular description of goods.—Cream for Use on the Human Hair to Strengthen and Give a Glossy Appearance to the Same.

Claims use since on or about Sept. 1, 1919.

Ser. No. 157,840. (CLASS 39. CLOTHING.) LOUIS A. LEOPOLD, trading as Lane Bryant, New York, N. Y. Filed Jan. 12, 1922.

ADAPTO

Particular description of goods.—Shoes of Leather, Rubber, Fabric, and of the Combination of the Foregoing.

Claims use since Jan. 2, 1922.

Ser. No. 157,861. (CLASS 37. PAPER AND STATIONERY.) UNITED STATES ENVELOPE COMPANY, Springfield, Mass. Filed Jan. 12, 1922.

MONO-OUTLOOK

Particular description of goods.—Envelopes

Claims use since Nov. 1, 1921.

Ser. No. 157,875. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAMES L. BLADES, doing business as The New Jersey Products Company, Woodcliff-on-Hudson, N. J. Filed Jan. 13, 1922.

Particular description of goods.—Cold Creams, Vanishing Creams, Talcum Powders, Powder Compacts, Nail Polishes, Toilet Waters, Tooth Pastes, Brilliantines, Hair Tonic, and Shampoos.
Claims use since July 12, 1921.

Ser. No. 158,032. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) H. S. BERLINER, trading as The Compo Company, Lachine, Quebec, Canada. Filed Jan. 17, 1922.

Particular description of goods.—Talking Machines, Talking-Machine Parts, Talking-Machine Records, and Talking-Machine Needles.
Claims use since June 21, 1921.

Ser. No. 158,033. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) H. S. BERLINER, trading as The Compo Company, Lachine, Quebec, Canada. Filed Jan. 17, 1922.

Particular description of goods.—Talking Machines, Talking-Machine Parts, Talking-Machine Records, and Talking-Machine Needles.
Claims use since Nov. 2, 1921.

Ser. No. 158,089. (CLASS 39. CLOTHING.) MARTIN AND MARTIN, Chicago, Ill. Filed Jan. 18, 1922.

Particular description of goods.—Men's, Women's, and Children's Leather Shoes.
Claims use since Jan. 1, 1912.

Ser. No. 158,196. (CLASS 39. CLOTHING.) PAUL A. SAVI, Boston, Mass. Filed Jan. 20, 1922.

Particular description of goods.—Boots and Shoes of Leather, Rubber, Fabric, and Combinations.
Claims use since Dec. 29, 1921.

Ser. No. 158,268. (CLASS 42. KNITTED, NETTED AND TEXTILE FABRICS.) TILTON & KEELER, INC. New York, N. Y. Filed Jan. 21, 1922.

No claim being made to the exclusive use of the word "Draperies" apart from the mark shown in drawing.
Particular description of goods.—Cotton Piece Goods.
Claims use since Jan. 3, 1922.

Ser. No. 158,569. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) EMPIRE SILK COMPANY, Wilmington, Del., and New York, N. Y. Filed Jan. 28, 1922.

Particular description of goods.—Silk Piece Goods.
Claims use since Jan. 17, 1922.

Ser. No. 158,708. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) GOLDY BROTHERS, New York, N. Y. Filed Feb. 1, 1922.

The child represented being the seven-year-old daughter of Samuel Goldy, one of applicants, no claim being made to the word "Brand" apart from the mark shown.

Particular description of goods.—Silk Ribbons and Silk and Cotton Ribbons.

Claims use since January, 1921.

Ser. No. 158,714. (CLASS 17. TOBACCO PRODUCTS.) JOHN C. HERMAN & CO., Harrisburg, Pa. Filed Feb. 1, 1922.

The portrait is that of John C. Herman.

Particular description of goods.—Cigars.

Claims use since Jan. 13, 1922.

Ser. No. 158,724. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PACIFIC MILLS, Lawrence and Boston, Mass. Filed Feb. 1, 1922.

Particular description of goods.—Cotton Piece Goods.

Claims use since Nov. 7, 1919.

Ser. No. 158,726. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PACIFIC MILLS, Lawrence and Boston, Mass. Filed Feb. 1, 1922.

Particular description of goods.—Cotton Piece Goods.

Claims use since Oct. 4, 1916.

Ser. No. 158,799. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PELZER MANUFACTURING COMPANY, Pelzer, S. C. Filed Feb. 2, 1922.

Particular description of goods.—Sheetings.

Claims use since Jan. 10, 1922.

Ser. No. 158,832. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MARTIN SONS AND COMPANY, LIMITED, Lindley, Borough of Huddersfield, England. Filed Feb. 3, 1922.

Particular description of goods.—Cloths and Stuffs of Wool, Worsted, or Hair.

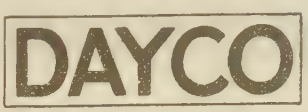
Claims use since May 28, 1921.

Ser. No. 158,856. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE CAFICO CHEMICAL COMPANY, INC., Pittsburgh, Pa. Filed Feb. 4, 1922.

Particular description of goods.—Soaps and Soap Powders.

Claims use since July 8, 1921.

Ser. No. 158,918. (CLASS 12. CONSTRUCTION MATERIALS.) MATILDA DAY, doing business as William J. Day & Co., Boston, Mass. Filed Feb. 6, 1922.



Particular description of goods.—Hardwood Floors.

Claims use since Jan. 7, 1922.

Ser. No. 158,957. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) V. VIVAUDOU, INC., New York, N. Y. Filed Feb. 6, 1922.

Mavis

Particular description of goods.—Veils, Hair Nets, Silk Piece Goods, Cotton Piece Goods, Woolen Piece Goods, and Lace Curtains.
Claims use since Jan. 18, 1922.

Ser. No. 159,011. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CHENEY BROTHERS, South Manchester, Conn. Filed Feb. 8, 1922.

Colorspun

Particular description of goods.—Woven, Knitted, Netted, Textile, and Pile Fabrics in the Piece, Comprised in Whole or in Part of Silk.
Claims use since about Jan. 27, 1922.

Ser. No. 159,114. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn. Filed Feb. 9, 1922.

SEAL-TEX

Trade-mark consists of "Seal-Tex."
Particular description of goods.—Pile Fabrics in the Piece.
Claims use since Jan. 4, 1922.

Ser. No. 159,241. (CLASS 12. CONSTRUCTION MATERIALS.) GORDON S. BOWDISH, New Orleans, La. Filed Feb. 13, 1922.

TEXASPHALTIC

Particular description of goods.—Bituminous Cement.
Claims use since Jan. 1, 1922.

Ser. No. 159,252. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FORSTMANN & HUFFMANN COMPANY, Passaic, N. J. Filed Feb. 13, 1922.

Ardenna

Particular description of goods.—Woolen Piece Goods.
Claims use since Jan. 10, 1922.

Ser. No. 159,253. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FORSTMANN & HUFFMANN COMPANY, Passaic, N. J. Filed Feb. 13, 1922.

Anitra

Particular description of goods.—Woolen Piece Goods.
Claims use since Jan. 3, 1922.

Ser. No. 159,254. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FORSTMANN & HUFFMANN COMPANY, Passaic, N. J. Filed Feb. 13, 1922.

Morena

Particular description of goods.—Woolen Piece Goods.
Claims use since Jan. 10, 1922.

Ser. No. 159,255. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FORSTMANN & HUFFMANN COMPANY, Passaic, N. J. Filed Feb. 13, 1922.

Livona

Particular description of goods.—Woolen Piece Goods.
Claims use since Jan. 10, 1922.

Ser. No. 159,256. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FORSTMANN & HUFFMANN COMPANY, Passaic, N. J. Filed Feb. 13, 1922.

Heliosa

Particular description of goods.—Woolen Piece Goods.
Claims use since Jan. 3, 1922.

Ser. No. 159,289. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SHLIVEK BROTHERS FABRICS CORPORATION, New York, N. Y. Filed Feb. 13, 1922.

AUSTRELLA

Particular description of goods.—Wool, Wool and Cotton, and Wool and Silk Mixture Fabrics in the Piece.
Claims use since about Nov. 15, 1921.

Ser. No. 159,291. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SHLIVEK BROTHERS FABRICS CORPORATION, New York, N. Y. Filed Feb. 13, 1922.

GOLFANA

Particular description of goods.—Wool, Wool and Cotton, and Wool and Silk Mixture Fabrics in the Piece.
Claims use since about Nov. 15, 1921.

Ser. No. 159,343. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) N. B. COHEN, Scranton, Pa. Filed Feb. 15, 1922.

TANGERINE

Particular description of goods.—Hair Nets.
Claims use since Jan. 5, 1922.

Ser. No. 159,344. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) N. B. COHEN, Scranton, Pa. Filed Feb. 15, 1922.

Bianet

Particular description of goods.—Hair Nets.
Claims use since Jan. 5, 1922.

Ser. No. 159,346. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) N. B. COHEN, Scranton, Pa. Filed Feb. 15, 1922.

ROSELYN

Particular description of goods.—Hair Nets.
Claims use since Jan. 5, 1922.

Ser. No. 159,471. (CLASS 50. MERCANDISE NOT OTHERWISE CLASSIFIED.) MAPPIN & WEBB LIMITED, Sheffield and London, England. Filed Feb. 17, 1922.

M
TRUSTWORTHY

Particular description of goods.—Scent-Bottle Screws—i. e., Bottle Closures.
Claims use since May 20, 1890.

Ser. No. 159,472. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) MAPPIN & WEBB LIMITED, Sheffield and London, England. Filed Feb. 17, 1922.

Particular description of goods.—Scent-Bottle Screws—i. e., Bottle Closures.
Claims use since Jan. 26, 1877.

Ser. No. 159,513. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) J. L. MOTT COMPANY, Trenton, N. J. Filed Feb. 18, 1922.

EVERITE

Particular description of goods.—Seats and Covers for Water Closets.
Claims use since Jan. 16, 1922.

Ser. No. 159,621. (CLASS 45. BEVERAGES, NONALCOHOLIC.) E. & H. SILVERMAN, doing business as The First Aid Syrup Co., Hazleton, Pa. Filed Feb. 20, 1922.

Particular description of goods.—Noncereal, Nonalcoholic, Maltless Beverage Sold as a Soft Drink.
Claims use since May 1, 1921.

Ser. No. 159,640. (CLASS 37. PAPER AND STATIONERY.) WAXTWELL PAPER COMPANY, Grand Rapids, Mich. Filed Feb. 20, 1922.

Waxtwell

Particular description of goods.—Wrapping Paper.
Claims use since Jan. 3, 1922.

Ser. No. 159,719. (CLASS 12. CONSTRUCTION MATERIALS.) THE POLLAK STEEL COMPANY, Cincinnati, Ohio. Filed Feb. 23, 1922.

POSCO

Particular description of goods.—Metal Bars for Reenforcing Concrete.
Claims use since Apr. 18, 1919.

Ser. No. 159,759. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) LIONEL F. LEE, doing business as Lee Rubber Company, Waukesha, Wis. Filed Feb. 24, 1922.

GIANT GRIP

Particular description of goods.—Inner-Tire Rubber Patches.
Claims use since Dec. 28, 1921.

Ser. No. 159,923. (CLASS 45. BEVERAGES, NONALCOHOLIC.) CHERRY BLOSSOM MFG. CO., Newton, Iowa. Filed Feb. 28, 1922.

Birch Bloom

Particular description of goods.—Nonalcoholic, Noncereal, Maltless Beverages Sold as Soft Drinks and Sirups for Making the Same.
Claims use since Nov. 15, 1914.

Ser. No. 159,954. (CLASS 45. BEVERAGES, NONALCOHOLIC.) CHERRY BLOSSOM MFG. CO., Newton, Iowa. Filed Feb. 28, 1922.

Lemon Bloom

Particular description of goods.—Nonalcoholic, Noncereal, Maltless Beverages Sold as Soft Drinks and Sirups for Making the Same.
Claims use since Nov. 15, 1914.

Ser. No. 160,284. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) CITY BRASS WORKS CO., Chicago, Ill. Filed Mar. 7, 1922.

Ceder

Particular description of goods.—Hinges, Particularly Windshield Hinges.
Claims use since November, 1917.

Ser. No. 160,306. (CLASS 45. BEVERAGES, NONALCOHOLIC.) JOHN Z. SCHONHOFF, trading as Lord Baltimore Bottling Company, Baltimore, Md. Filed Mar. 7, 1922.

LORD BALTIMORE

Particular description of goods.—Ginger Ale.
Claims use since on or about Mar. 1, 1922.

Ser. No. 160,352. (CLASS 37. PAPER AND STATIONERY.) IMPORT PAPER COMPANY, Chicago, Ill. Filed Mar. 8, 1922.

PLATINUM

Particular description of goods.—Writing Paper.
Claims use since October, 1920.

Ser. No. 160,353. (CLASS 37. PAPER AND STATIONERY.) IMPORT PAPER COMPANY, Chicago, Ill. Filed Mar. 8, 1922.

IMPACO

Particular description of goods.—Writing Paper.
Claims use since January, 1917.

Ser. No. 160,379. (CLASS 45. BEVERAGES, NONALCOHOLIC.) AMERICAN BOTTLING & SODA WATER CO., San Francisco, Calif. Filed Mar. 9, 1922.

HOME RUN

Particular description of goods.—Nonintoxicating, Noncereal, Maltless Fruit Beverage Sold as a Soft Drink and Sirups Used in the Preparation of Same.
Claims use since Nov. 14, 1921.

Ser. No. 160,393. (CLASS 45. BEVERAGES, NONALCOHOLIC.) California Products & Extract Co., San Francisco, Calif. Filed Mar. 9, 1922.

SUNRIPE

Particular description of goods.—Nonintoxicating, Non-Alcoholic, Noncereal, Maltless Fruit Beverages Sold as a Soft Drink and Sirups Used in the Preparation of Same.
Claims use since July 1, 1921.

Ser. No. 160,537. (CLASS 12. CONSTRUCTION MATERIALS.) The Carborundum Company, Niagara Falls, N. Y. Filed Mar. 11, 1922.

FIREFRAX

Particular description of goods.—Refractory Brick, Refractory Cement, Refractory Tile, Muffles, and Shaped Refractories.
Claims use since Feb. 17, 1922.

Ser. No. 160,766. (CLASS 37. PAPER AND STATIONERY.) Louisville Paper Co., Louisville, Ky. Filed Mar. 16, 1922.

CONQUEST

Particular description of goods.—Bond Paper.
Claims use since August, 1913.

Ser. No. 160,983. (CLASS 12. CONSTRUCTION MATERIALS.) United States Tent & Awning Company, Chicago, Ill. Filed Mar. 20, 1922.

OUTDOOR

Particular description of goods.—Portable Houses.
Claims use since Feb. 10, 1922.

Ser. No. 160,991. (CLASS 12. CONSTRUCTION MATERIALS.) The Barrett Company, New York, N. Y. Filed Mar. 21, 1922.

Particular description of goods.—Felt Roofing and Sheathing and Building Paper.
Claims use since about Aug. 1, 1921.

Ser. No. 161,047. (CLASS 12. CONSTRUCTION MATERIALS.) Harry H. Honigbaum, New York, N. Y. Filed Mar. 22, 1922.

DI-VER-SO.

Particular description of goods.—Shingles.
Claims use since Mar. 8, 1922.

Ser. No. 161,053. (CLASS 12. CONSTRUCTION MATERIALS.) Kerlow Steel Flooring Company, New York, N. Y. Filed Mar. 22, 1922.

KERLOW

Particular description of goods.—Steel Flooring, Ventilator Gratings, Grids, and Grilles.
Claims use since about Dec. 13, 1921.

Ser. No. 161,127. (CLASS 12. CONSTRUCTION MATERIALS.) Grays Harbor Shingle Co., Aberdeen, Wash. Filed Mar. 23, 1922.

VERTIGRAIN

Particular description of goods.—Red-Cedar Shingles.
Claims use since Mar. 1, 1922.

Ser. No. 161,354. (CLASS 45. BEVERAGES, NONALCOHOLIC.) The Cherry Pride Company, Chicago, Ill. Filed Mar. 28, 1922.

Rohter's
Cherry Pride

Particular description of goods.—Nonalcoholic, Noncereal, Maltless Beverages Sold as Soft Drinks and Sirups for Making the Same.
Claims use since Jan. 15, 1921.

Ser. No. 161,358. (CLASS 45. BEVERAGES, NONALCOHOLIC.) F. GREENWOOD, INC., Paterson, N. J. Filed Mar. 28, 1921.

GRECO

Particular description of goods.—Nonalcoholic, Noncereal, Maltless Beverages Sold as Soft Drinks and Sirups for Making the Same.
Claims use since Mar. 1, 1913.

Ser. No. 161,456. (CLASS 45. BEVERAGES, NONALCOHOLIC.) STAR EXTRACT WORKS, New York, N. Y. Filed Mar. 29, 1922.

ORANJOY

Particular description of goods.—Nonalcoholic, Maltless Beverage and Extract for Making the Same.
Claims use since May 28, 1921.

Ser. No. 161,527. (CLASS 45. BEVERAGES, NONALCOHOLIC.) CALIFORNIA FRUIT BEVERAGE CO., Los Angeles, Calif. Filed Mar. 31, 1922.

SEQUOIA

Particular description of goods.—Apple Cider, Grape Juice, and Fruit Sirups for Making Nonalcoholic, Noncereal, Maltless Carbonated Soft Drinks.
Claims use since Nov. 22, 1920.

Ser. No. 161,553. (CLASS 45. BEVERAGES, NONALCOHOLIC.) THE HAMBURGER CO., Chicago, Ill. Filed Mar. 31, 1922.

Rasbo

Particular description of goods.—Nonintoxicating, Nonalcoholic, Noncereal, Maltless Fruit Beverage Sold as a Soft Drink and Sirups Used in Preparation of Same.
Claims use since 1912.

Ser. No. 161,613. (CLASS 45. BEVERAGES, NONALCOHOLIC.) S. & J. ANGERT BROS., Philadelphia, Pa., and Atlantic City, N. J. Filed Apr. 1, 1922.

Particular description of goods.—Nonalcoholic, Noncereal, Maltless Beverages, Sold as Soft Drinks.
Claims use since Jan. 15, 1922.

Ser. No. 161,706. (CLASS 12. CONSTRUCTION MATERIALS.) CHARLES HERBERT SANKEY, London, England. Filed Apr. 3, 1922.

PYRUMA

Particular description of goods.—Fire Cement.
Claims use since Apr. 12, 1907.

Ser. No. 161,713. (CLASS 45. BEVERAGES. NONALCOHOLIC.) ABNER-DRURY COMPANY, Washington, D. C. Filed Apr. 4, 1922.

SHAWNEE

Particular description of goods.—Ginger Ale.
Claims use since Nov. 26, 1921.

Ser. No. 162,298. (CLASS 38. PRINTS AND PUBLICATIONS.) INTERPRETER PUBLISHING CORPORATION, New York, N. Y. Filed Apr. 14, 1922.

THE INTERNATIONAL Interpreter

Particular description of goods.—Weekly Periodical.
Claims use since Apr. 8, 1922.

TRADE-MARK REGISTRATIONS GRANTED

[ACT OF FEBRUARY 20, 1905.]

MAY 16, 1922.

154,854. SANITARY NAPKINS, SANITARY APRONS, SANITARY BELTS, SANITARY DIAPERS, AND SURGEONS' RUBBER GLOVES. Ace Specialties Corp., New York, N. Y.

Filed October 24, 1921. Serial No. 154,469. PUBLISHED FEBRUARY 14, 1922.

154,855. WINDOW AND DOOR SCREENS. Acme Screen Company, Dallas, Tex.

Filed October 21, 1921. Serial No. 154,395. PUBLISHED JANUARY 31, 1922.

154,856. SCISSORS AND SHEARS. The Acme Shear Company, Bridgeport, Conn.

Filed September 2, 1921. Serial No. 152,497. PUBLISHED JANUARY 31, 1922.

154,857. CASES, BOXES, AND CONTAINERS FOR EYEGLASSES, SPECTACLES, OPERA GLASSES, Etc. Aitchison & Company, New York, N. Y.

Filed December 24, 1921. Serial No. 157,089. PUBLISHED FEBRUARY 7, 1922.

154,858. MANILA ROPE, SISAL ROPE, WIRE ROPE, AND MARLINE COVERED WIRE ROPE. Ajax Rope Company, Inc., New York, N. Y.

Filed November 17, 1921. Serial No. 155,472. PUBLISHED FEBRUARY 21, 1922.

154,859. LOCKS. Aktiebolaget Abloy Osakeyhtio, Helsingfors, Finland.

Filed November 19, 1921. Serial No. 155,587. PUBLISHED JANUARY 31, 1922.

154,860. LOCKS. Aktiebolaget Abloy Osakeyhtio, Helsingsfors, Finland.

Filed November 19, 1921. Serial No. 155,588. PUBLISHED JANUARY 31, 1922.

154,861. CERTAIN CHAINS, LOOPS, RINGS AND HOOKS, AND STAPLES, BOLTS, CARGO NETS, AND OTHER PRODUCTS. American Chain Company, Inc., New York, N. Y., and Bridgeport, Conn.

Filed April 5, 1921. Serial No. 145,736. PUBLISHED AUGUST 2, 1921.

154,862. CORSETS AND BRASSIÈRES. American Lady Corset Co., Detroit, Mich.

Filed March 28, 1921. Serial No. 145,306. PUBLISHED JULY 12, 1921.

154,863. SHAVING BRUSHES. American Safety Razor Corporation, Brooklyn and New York, N. Y.

Filed December 16, 1921. Serial No. 156,816. PUBLISHED FEBRUARY 14, 1922.

154,864. WIRE FOR PIANOS AND OTHER MUSICAL INSTRUMENTS. The American Steel & Wire Company of New Jersey, Cleveland, Ohio.

Filed December 1, 1921. Serial No. 156,140. PUBLISHED JANUARY 10, 1922.

154,865. WIRE ROPE AND CABLES OF EVERY FORM AND FOR ALL USES, AND AEROPLANE CABLES. The American Steel & Wire Company of New Jersey, Cleveland, Ohio.

Filed December 1, 1921. Serial No. 156,136. PUBLISHED FEBRUARY 7, 1922.

154,866. SMOKING AND CHEWING TOBACCO AND CIGARETTES. The American Tobacco Company, New York, N. Y.

Filed April 18, 1921. Serial No. 146,285. PUBLISHED FEBRUARY 14, 1922.

154,867. FERTILIZERS, PARTICULARLY THOSE CONTAINING PHOSPHATE. Anaconda Copper Mining Company, Anaconda and Butte, Mont., and New York, N. Y.

Filed March 25, 1921. Serial No. 145,199. PUBLISHED FEBRUARY 7, 1922.

154,868. MOTION PICTURES. Arrow Film Corporation, New York, N. Y.

Filed October 19, 1921. Serial No. 154,294. PUBLISHED FEBRUARY 14, 1922.

154,869. TOOTH PASTE. Atkins-Blakeney Chemical Company, Scranton, Pa.

Filed September 20, 1921. Serial No. 153,122. PUBLISHED JANUARY 3, 1922.

154,870. PERIODICALS PUBLISHED WEEKLY. The Atlas Publishing Company, New York, N. Y.

Filed November 14, 1921. Serial No. 155,331. PUBLISHED JANUARY 31, 1922.

154,871. TOILET PAPER. John F. Auer, Philadelphia, Pa

Filed December 21, 1921. Serial No. 156,980. PUBLISHED JANUARY 31, 1922.

154,872. VAPORIZERS FOR SUPPLYING WATER VAPOR TO THE CYLINDERS OF INTERNAL-COMBUSTION ENGINES. Automatic Steam Carburetor Company, Chicago, Ill.

Filed February 10, 1921. Serial No. 143,376. PUBLISHED JANUARY 17, 1922.

154,873. FOUNTAIN PENS. Louis Badois, Paris, France.

Filed December 21, 1921. Serial No. 156,981. PUBLISHED FEBRUARY 14, 1922.

154,874. STEEL AND IRON IN CERTAIN FORMS, CERTAIN STEELS, AND STEEL CASTINGS, FORGINGS, AND STAMPINGS. Arthur Balfour & Co. Limited, Sheffield, England.

Filed August 31, 1921. Serial No. 152,411. PUBLISHED JANUARY 31, 1922.

154,875. SWEATERS AND SWEATER COATS, HOSIERY, AND FABRIC AND LEATHER GLOVES. Baynton Mills, Philadelphia, Pa.

Filed December 3, 1920. Serial No. 140,569. PUBLISHED JANUARY 17, 1922.

154,876. CARBONATED, MALTLESS SOFT DRINKS AND SIRUPS THEREFOR. Beacon Chocolate Company, Boston, Mass.

Filed June 10, 1919. Serial No. 119,392. PUBLISHED FEBRUARY 7, 1922.

154,877. CARBONATED, MALTLESS SOFT DRINKS AND SIRUPS THEREFOR. Beacon Chocolate Company, Boston, Mass.

Filed June 10, 1919. Serial No. 119,393. PUBLISHED FEBRUARY 7, 1922.

154,878. AUTOMOBILE-RADIATOR-SOLUTION TESTERS. The Beckley-Ralston Co., Chicago, Ill.

Filed August 11, 1920. Serial No. 135,985. PUBLISHED JANUARY 31, 1922.

154,879. FURNITURE POLISH. Bernard Benjamin, Dayton, Ohio.

Filed November 19, 1921. Serial No. 155,591. PUBLISHED FEBRUARY 14, 1922.

154,880. CIGARETTES AND CIGARETTE TOBACCO. JOHN M. BERBERIAN, Boston, Mass.
Filed June 22, 1921. Serial No. 149,501. PUBLISHED JANUARY 31, 1922.

154,881. HAIR NETS. ARMAND V. BLATT, New York, N. Y.
Filed October 15, 1921. Serial No. 154,117. PUBLISHED JANUARY 31, 1922.

154,882. WATER-SOFTENING APPARATUS. THE BORROMITE COMPANY OF AMERICA, Chicago, Ill.
Filed November 3, 1920. Serial No. 139,109. PUBLISHED FEBRUARY 14, 1922.

154,883. A PERIODICAL PUBLISHED MONTHLY. ARTHUR W. BRAYLEY, Dorchester, Mass.
Filed January 22, 1921. Serial No. 142,580. PUBLISHED JANUARY 3, 1922.

154,884. A LIQUID AUTOMOBILE POLISH. RAY E. BRIGGS, Los Angeles, Calif.
Filed November 26, 1921. Serial No. 155,954. PUBLISHED FEBRUARY 14, 1922.

154,885. CERTAIN NAMED PAPERS. BRITTAINS, LIMITED, township of Cheddlet n. county of Staffordshire, England.
Filed October 3, 1921. Serial No. 153,637. PUBLISHED FEBRUARY 21, 1922.

154,886. WELTING. BROCKTON RAND COMPANY, Montello, Brockton, Mass.
Filed May 14, 1921. Serial No. 147,702. PUBLISHED NOVEMBER 22, 1921.

154,887. NEWSPRINT PAPER. THE BROMPTON PULP & PAPER CO. LIMITED, Montreal, Quebec, Canada.
Filed January 28, 1921. Serial No. 142,870. PUBLISHED FEBRUARY 28, 1922.

154,888. CERTAIN ARTICLES OF CLOTHING. BROWN DURRELL CO., Boston, Mass.
Filed January 7, 1921. Serial No. 141,939. PUBLISHED DECEMBER 20, 1921.

154,889. SOUND REPRODUCERS FOR PHONOGRAPHS. THE BRUNSWICK-BALKE-COLLENDER COMPANY, Chicago, Ill.
Filed November 28, 1921. Serial No. 155,985. PUBLISHED JANUARY 10, 1922.

154,890. BOWLING-ALLEY BALL RETURNS. THE BRUNSWICK-BALKE-COLLENDER COMPANY, Wilmington, Del., and Chicago, Ill.
Filed January 3, 1922. Serial No. 157,407. PUBLISHED FEBRUARY 14, 1922.

154,891. SAXOPHONES. BUESCHER BAND INSTRUMENT CO., Elkhart, Ind.
Filed October 14, 1921. Serial No. 154,105. PUBLISHED JANUARY 31, 1922.

154,892. POWDER PUFFS. MARIE A. BUTLER, New York, N. Y.
Filed October 10, 1921. Serial No. 153,919. PUBLISHED FEBRUARY 7, 1922.

154,893. GRAPE JUICE, PINEAPPLE JUICE, AND LOGANBERRY JUICE. CALIFORNIA PACKING CORPORATION, San Francisco, Calif.
Filed July 20, 1920. Serial No. 135,201. PUBLISHED APRIL 26, 1921.

154,894. CEDAR-OIL POLISH. GEORGE H. CAPEN, Canton Junction, Mass.
Filed November 15, 1921. Serial No. 155,395. PUBLISHED FEBRUARY 14, 1922.

154,895. MUCILAGE AND LIBRARY PASTE. GEORGE H. CAPEN, Canton Junction, Mass.
Filed November 15, 1921. Serial No. 155,393. PUBLISHED JANUARY 31, 1922.

154,896. CERTAIN ARTICLES OF CLOTHING. CARAVEL COMPANY, INC., New York, N. Y.
Filed June 24, 1920. Serial No. 134,115. PUBLISHED JULY 12, 1921.

154,897. ALLOY STEEL IN BARS, BILLETS, AND SHAPES. THE CARPENTER STEEL COMPANY, Reading, Pa.
Filed July 6, 1920. Serial No. 134,583. PUBLISHED OCTOBER 25, 1921.

154,898. SPECIAL METAL-WORKING MACHINERY AND PRODUCTION TOOLS, AS JIGS, FIXTURES, DIES, ETC. THE CARROLL ENGINEERING CO., Dayton, Ohio.
Filed September 25, 1920. Serial No. 137,604. PUBLISHED FEBRUARY 7, 1922.

154,899. DENTAL CEMENT, ALLOY, TEMPORARY STOPPING. ALEXANDER CASSRIEL COMPANY, Chicago, Ill.
Filed January 24, 1920. Serial No. 127,541. PUBLISHED JANUARY 31, 1922.

154,900. A MATERIAL FOR PRECIPITATING OR SEPARATING IMPURITIES OR OTHER MATTER FROM FLUIDS. CELITE PRODUCTS COMPANY, Los Angeles, Calif., and New York, N. Y.
Filed June 18, 1921. Serial No. 149,319. PUBLISHED JANUARY 31, 1922.

154,901. HYGIENIC POWDER FOR THE TOILET AND BATH, DENTIFRICES, BEAUTY CREAM, AND PERFUMES. CENTRAL-SPÉCIALITÉS SOCIETE ANONYME, Paris, France.
Filed November 4, 1920. Serial No. 139,149. PUBLISHED APRIL 12, 1921.

154,902. CIGARS. JOHN HICKS CHANDLER, Newnan, Ga.
Filed October 18, 1921. Serial No. 154,264. PUBLISHED JANUARY 31, 1922.

154,903. HERNIAL TRUSSES. CHESTERMAN-LEELAND CO., Philadelphia, Pa.
Filed October 28, 1921. Serial No. 154,680. PUBLISHED JANUARY 31, 1922.

154,904. GARBAGE AND ASH RECEPTACLES. CHICAGO GRANITINE MANUFACTURING COMPANY, Chicago, Ill.
Filed December 5, 1921. Serial No. 156,263. PUBLISHED FEBRUARY 7, 1922.

154,905. NONFERROUS INGOTS OF COPPER, NICKEL, AND ZINC AND ALLOYS OF THE SAME. CHARLES N. CHOATE, Bridgeport, Conn.
Filed October 29, 1921. Serial No. 154,726. PUBLISHED FEBRUARY 14, 1922.

154,906. CERTAIN NAMED RECEPTACLES. MARGARET CLAYES, San Francisco, Calif.
Filed January 12, 1921. Serial No. 142,132. PUBLISHED JANUARY 31, 1922.

154,907. CULTIVATORS, PLOWS, HARROWS, MOWERS, REAPERS, BINDERS, AND HITCHES FOR CONNECTING SUCH IMPLEMENTS AND OTHER VEHICLES WITH TRACTORS. THE CLEVELAND TRACTOR COMPANY, Euclid, Ohio.
Filed April 22, 1920. Serial No. 131,466. PUBLISHED FEBRUARY 14, 1922.

154,908. BRASS AND COPPER SEAMLESS TUBING. U. S. COPPER PRODUCTS CORP., Cleveland, Ohio.
Filed June 9, 1920. Serial No. 133,450. PUBLISHED NOVEMBER 23, 1920.

154,909. GOLF BALLS. CORONA RUBBER MANUFACTURING CO., Philadelphia, Pa.
Filed June 16, 1920. Serial No. 133,769. PUBLISHED JANUARY 31, 1922.

154,910. A CAPTIVE-BALL DEVICE FOR PLAYING AND PRACTICE OF GAMES—NAMELY, GOLF. CRAIG GOLFMETER CO., San Francisco, Calif.
Filed November 21, 1921. Serial No. 155,666. PUBLISHED FEBRUARY 14, 1922.

154,911. FASTENERS, PLATES, CLAMPS, AND RIVETS MADE OF ANY METAL FOR MACHINERY BELTING. CRESCENT BELT FASTENER COMPANY, New York, N. Y.
Filed September 27, 1920. Serial No. 137,657. PUBLISHED JANUARY 31, 1922.

154,912. GASOLINE AND ENGINE AND MOTOR FUEL OILS. CROWN OIL & WAX CO. OF DELAWARE, Baltimore, Md.
Filed April 28, 1921. Serial No. 146,872. PUBLISHED JANUARY 31, 1922.

154,913. PLUG TOBACCO. CUMBERLAND TOBACCO WORKS, INC., Nashville, Tenn.
Filed July 3, 1920. Serial No. 134,536. PUBLISHED JANUARY 31, 1922.

154,914. CERTAIN VALVES AND UNIONS AND INDICATOR POSTS, FLOOR STANDS, VALVE BOXES. FIRE HYDRANTS, FLANGES, AND FUSIBLE PLUGS. DARLING VALVE & MANUFACTURING COMPANY, Williamsport, Pa.
Filed August 11, 1921. Serial No. 151,661. PUBLISHED JANUARY 31, 1922.

154,915. BLACK READY-MIXED PAINT. THE DAYTON COLOR WORKS COMPANY, Dayton, Ohio.
Filed October 15, 1921. Serial No. 154,128. PUBLISHED FEBRUARY 14, 1922.

154,916. CIGARS, CIGARETTES, CHEROOTS, STOGIES, CHEWING TOBACCO, SCRAPS, AND SNUFF. DEMMI CIGAR CO., Tampa, Fla.
Filed August 5, 1920. Serial No. 135,804. PUBLISHED FEBRUARY 7, 1922.

154,917. OIL ENGINES. DIAMOND IRON WORKS, Minneapolis, Minn.
Filed October 6, 1919. Serial No. 123,475. PUBLISHED FEBRUARY 14, 1922.

154,918. LEVELS, BEVELS, SQUARES, AND CUTTING GAUGES, MARKING GAUGES, AND MORTISE GAUGES. HENRY DISSTON & SONS, INCORPORATED, Philadelphia, Pa.
Filed October 26, 1921. Serial No. 154,584. PUBLISHED FEBRUARY 14, 1922.

154,919. WAXED PAPER. DRAGON PAPER MFG. CO. INC., New York and Long Island City, N. Y.
Filed November 7, 1921. Serial No. 155,088. PUBLISHED JANUARY 31, 1922.

154,920. FOUNTAIN PENS. DUNN-PEN COMPANY, INC., New York, N. Y.
Filed December 28, 1921. Serial No. 157,214. PUBLISHED FEBRUARY 14, 1922.

154,921. FOUNTAIN PENS. DUNN-PEN COMPANY, INC., New York, N. Y.
Filed December 28, 1921. Serial No. 157,216. PUBLISHED FEBRUARY 14, 1922.

154,922. CARBON-STEEL, HIGH-SPEED OR ALLOYED TOOL STEEL. DYKTOR BROTHERS, INC., New York, N. Y.
Filed November 2, 1921. Serial No. 154,920. PUBLISHED FEBRUARY 7, 1922.

154,923. PADLOCKS. EAGLE LOCK CO., Terryville, Conn.
Filed November 20, 1920. Serial No. 139,884. PUBLISHED JANUARY 31, 1922.

154,924. CASTILE SOAP. DAVID A. EBERLY, Alameda, Calif.
Filed July 19, 1920. Serial No. 135,141. PUBLISHED OCTOBER 25, 1921.

154,925. CARBONATED, NONALCOHOLIC, MALTLESS BEVERAGES SOLD AS SOFT DRINKS. THE EILERT BEVERAGE COMPANY, Cleveland, Ohio.
Filed June 15, 1921. Serial No. 149,177. PUBLISHED JANUARY 31, 1922.

154,926. MALT EXTRACT. ALFRED ENDRES, New York, N. Y.
Filed July 23, 1921. Serial No. 150,856. PUBLISHED FEBRUARY 14, 1922.

154,927. FISHING REELS. THE ENTERPRISE MANUFACTURING COMPANY, Akron, Ohio.
Filed November 9, 1921. Serial No. 155,220. PUBLISHED JANUARY 31, 1922.

154,928. TOWEL HOLDERS AND BROOM HOLDERS. C. E. ERICKSON CO. INC., Des Moines, Iowa.
Filed March 16, 1920. Serial No. 129,779. PUBLISHED FEBRUARY 7, 1922.

154,929. A SKIN OINTMENT. EYERS DRUG & CHEMICAL CO., Gloucester, Mass.
Filed January 20, 1921. Serial No. 142,478. PUBLISHED JULY 26, 1921.

154,930. A MEDICINE USED AGAINST CANCER, STOMACH AND LIVER TROUBLES, AND AS A BLOOD PURIFIER. WILLIAM FAUPEL, London, England.
Filed July 22, 1921. Serial No. 150,805. PUBLISHED NOVEMBER 15, 1921.

154,931. ABDOMINAL BANDAGES AND SUPPORTERS. ERNEST J. FAYART, Springfield, Ill.
Filed September 9, 1921. Serial No. 152,746. PUBLISHED FEBRUARY 14, 1922.

154,932. PHONOGRAPHS. FEDERAL PHONOGRAPH CO., INC., New York, N. Y., assignors to Paul B. Klugh, New York, N. Y.
Filed June 8, 1920. Serial No. 133,411. PUBLISHED NOVEMBER 2, 1920.

154,933. STEEL DIES USED IN DROP FORGING AND ANALOGOUS MACHINES FOR FORGING OR STAMPING METAL PRODUCTS. A. FINKL & SONS CO., Chicago, Ill.
Filed May 20, 1921. Serial No. 147,957. PUBLISHED JANUARY 17, 1922.

154,934. TOOL STEEL AND DIE STEEL IN THE FORM OF BARS, BLOCKS, AND DISKS. FIRTH-STERLING STEEL COMPANY, McKeesport, Pa.
Filed October 19, 1921. Serial No. 154,303. PUBLISHED JANUARY 31, 1922.

154,935. VIOLIN STRINGS. CARL FISCHER, New York, N. Y.
Filed June 2, 1921. Serial No. 148,538. PUBLISHED FEBRUARY 21, 1922.

154,936. FERROUS METAL PLATES AND SHEETS. FOLLANSBEE BROTHERS COMPANY, Pittsburgh, Pa.
Filed July 28, 1921. Serial No. 151,038. PUBLISHED FEBRUARY 14, 1922.

154,937. WOOLEN PIECE GOODS. FORSTMANN & HUFFMANN COMPANY, Passaic, N. J.
Filed November 19, 1921. Serial No. 155,612. PUBLISHED FEBRUARY 14, 1922.

154,938. PRINTED CIRCULARS AND PERIODICAL PAMPHLETS. FORT WAYNE ENGINEERING & MANUFACTURING CO., Fort Wayne, Ind.
Filed February 10, 1921. Serial No. 143,388. PUBLISHED JANUARY 31, 1922.

154,939. LOCKS AND LATCHES. THE E. T. FRAIM LOCK CO., Lancaster, Pa.
Filed February 25, 1921. Serial No. 144,022. PUBLISHED FEBRUARY 7, 1922.

154,940. SPELLING GAMES. SAML. GABRIEL SONS & COMPANY, New York, N. Y.
Filed December 9, 1921. Serial No. 156,487. PUBLISHED JANUARY 31, 1922.

154,941. COTTON PIECE GOODS. GARNER PRINT WORKS AND BLEACHERY, New York, N. Y.
Filed July 28, 1921. Serial No. 151,039. PUBLISHED FEBRUARY 14, 1922.

154,942. COTTON PIECE GOODS. GARNER PRINT WORKS AND BLEACHERY, New York, N. Y.
Filed July 28, 1921. Serial No. 151,040. PUBLISHED FEBRUARY 14, 1922.

154,943. COTTON PIECE GOODS. GARNER PRINT WORKS AND BLEACHERY, New York, N. Y.
Filed July 28, 1921. Serial No. 151,041. PUBLISHED FEBRUARY 14, 1922.

154,944. RECORD CARDS. THE GAYNOR MANUFACTURING COMPANY, Bridgeport, Conn.
Filed December 6, 1921. Serial No. 156,328. PUBLISHED JANUARY 31, 1922.

154,945. FERTILIZERS. GEDEA GAUDIAS DROUIN, St. Eustache, Quebec, Canada.
Filed February 17, 1921. Serial No. 143,701. PUBLISHED FEBRUARY 7, 1922.

154,946. A CLEANING AND POLISHING SOLUTION FOR FLOORS, FURNITURE, AND ENAMELED PAINTED SURFACES. JEREMIAH W. GERATY, New York, N. Y.
Filed December 1, 1921. Serial No. 156,157. PUBLISHED FEBRUARY 28, 1922.

154,947. SAFETY RAZORS. GILLETTE SAFETY RAZOR COMPANY, Boston, Mass.
Filed May 4, 1921. Serial No. 147,191. PUBLISHED FEBRUARY 7, 1922.

154,948. SAFETY RAZORS. GILLETTE SAFETY RAZOR COMPANY, Boston, Mass.
Filed May 4, 1921. Serial No. 147,193. PUBLISHED FEBRUARY 7, 1922.

154,949. SAFETY RAZORS. GILLETTE SAFETY RAZOR COMPANY, Boston, Mass.
Filed May 4, 1921. Serial No. 147,194. PUBLISHED FEBRUARY 7, 1922.

154,950. SAFETY RAZORS. GILLETTE SAFETY RAZOR COMPANY, Boston, Mass.
Filed June 29, 1921. Serial No. 149,802. PUBLISHED FEBRUARY 7, 1922.

154,951. LUBRICATING OIL. GILMORE PETROLEUM COMPANY, Los Angeles, Calif.
Filed November 21, 1921. Serial No. 155,680. PUBLISHED FEBRUARY 14, 1922.

154,952. LUBRICATING OIL. GILMORE PETROLEUM COMPANY, Los Angeles, Calif.
Filed November 21, 1921. Serial No. 155,681. PUBLISHED FEBRUARY 14, 1922.

154,953. BRAIDED OIL-SILK FISHING LINES. B. F. GLADDING & CO. INC., South Otselic, N. Y.
Filed October 22, 1921. Serial No. 154,448. PUBLISHED JANUARY 31, 1922.

154,954. SILK FISHING LINES. B. F. GLADDING & CO. INC., South Otselic, N. Y.
Filed October 26, 1921. Serial No. 154,592. PUBLISHED JANUARY 31, 1922.

154,955. MALT EXTRACTS FOR USE IN MAKING NONALCOHOLIC BEVERAGES. SIGMUND L. GOLDMAN, Chicago, Ill.
Filed August 27, 1921. Serial No. 152,252. PUBLISHED FEBRUARY 14, 1922.

154,956. EXPENSE-ACCOUNT BOOKS. HENRY B. GOODMAN, Boston, Mass.
Filed November 19, 1921. Serial No. 155,614. PUBLISHED FEBRUARY 14, 1922.

154,957. PORTABLE SAVINGS BANK. JOHN H. GREER, San Francisco, Calif.
Filed December 29, 1920. Serial No. 141,633. PUBLISHED FEBRUARY 14, 1922.

154,958. PRESSURE GAUGES FOR PNEUMATIC TIRES AND OTHER PURPOSES. THE GREIST MANUFACTURING COMPANY, New Haven, Conn.
Filed September 30, 1920. Serial No. 137,775. PUBLISHED FEBRUARY 7, 1922.

154,959. PLANCHETTE BOARDS. WHITFIELD J. HAINER, Providence, R. I.
Filed December 20, 1919. Serial No. 126,281. PUBLISHED FEBRUARY 7, 1922.

154,960. CERTAIN SPECIFIED ARTICLES OF STATIONERY. HAMILTON CARD & PAPER HOUSE, INC., New York, N. Y.
Filed May 26, 1921. Serial No. 148,275. PUBLISHED FEBRUARY 14, 1922.

154,961. FINGER-PIECE EYEGLASS MOUNTINGS. F. A. HARDY & COMPANY, Chicago, Ill.
Filed November 3, 1921. Serial No. 154,979. PUBLISHED JANUARY 31, 1922.

154,962. LUBRICATING OILS AND GREASES. A. W. HARRIS OIL COMPANY, Providence, R. I.
Filed November 18, 1921. Serial No. 155,558. PUBLISHED FEBRUARY 14, 1922.

154,963. BABY EXERCISERS. FRANCES M. HASKINS, New York, N. Y.
Filed December 1, 1921. Serial No. 156,159. PUBLISHED FEBRUARY 7, 1922.

154,964. STEEL PENS, LEAD PENCILS, AND RUBBER ERASERS. EGON HASSINGER, Barcelona, Spain.
Filed October 31, 1919. Serial No. 124,403. PUBLISHED JANUARY 31, 1922.

154,965. HAIR NETS. THE HAZEL NET COMPANY, New York, N. Y.
Filed November 22, 1921. Serial No. 155,753. PUBLISHED FEBRUARY 14, 1922.

154,966. HAIR NETS. THE HAZEL NET COMPANY, New York, N. Y.
Filed November 22, 1921. Serial No. 155,754. PUBLISHED FEBRUARY 14, 1922.

154,967. PIPE-BENDING TOOLS. ROBERT H. HENDERSON, Ampere, N. J.
Filed June 27, 1921. Serial No. 149,701. PUBLISHED JANUARY 10, 1922.

154,968. NONALCOHOLIC, MALTLESS BEVERAGE SOLD AS A SOFT DRINK. FRANK L. HENDRICKSON, Maysville, Ky.
Filed September 17, 1920. Serial No. 137,285. PUBLISHED FEBRUARY 7, 1922.

154,969. GASOLINE. HERCULES PETROLEUM COMPANY, Dallas, Tex.
Filed August 26, 1919. Serial No. 122,015. PUBLISHED APRIL 6, 1920.

154,970. A CEREAL MALT BEVERAGE CONTAINING LESS THAN ONE-HALF OF ONE PER CENT ALCOHOL. JULIUS A. HIERONIMUS, San Francisco, Calif.
Filed September 13, 1920. Serial No. 137,120. PUBLISHED FEBRUARY 7, 1922.

154,971. TOILET PAPER, PAPER NAPKINS, PAPER TOWELS, AND WRAPPING PAPER. THE JOHN HOBERG CO., Green Bay, Wis.
Filed November 9, 1921. Serial No. 155,226. PUBLISHED JANUARY 31, 1922.

154,972. FIBER ROPES AND TWINES. THE HOOVEN & ALLISON COMPANY, Xenia, Ohio.
Filed November 21, 1921. Serial No. 155,686. PUBLISHED FEBRUARY 7, 1922.

154,973. FIBER ROPES AND TWINES. THE HOOVEN & ALLISON COMPANY, Xenia, Ohio.
Filed November 21, 1921. Serial No. 155,687. PUBLISHED FEBRUARY 7, 1922.

154,974. FIBER ROPES AND TWINES. THE HOOVEN & ALLISON COMPANY, Xenia, Ohio.
Filed November 21, 1921. Serial No. 155,688. PUBLISHED FEBRUARY 7, 1922.

154,975. AUTOMOBILE RIM TOOLS. ROBERT D. HUGHES, Lynchburg, Va.
Filed May 3, 1921. Serial No. 147,160. PUBLISHED AUGUST 30, 1921.

154,976. ROLLER STROPPING APPARATUS FOR RAZORS AND SAFETY-RAZOR BLADES. HUGO BÜCHNER MASCHINENFABRIK UND APPARATEBAU-ANSTALT GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Berlin, Germany.
Filed March 17, 1921. Serial No. 144,891. PUBLISHED FEBRUARY 14, 1922.

154,977. FIRST-AID OUTFITS. HYGIENIC FIBRE COMPANY, Versailles, Conn.
Filed November 19, 1921. Serial No. 155,618. PUBLISHED FEBRUARY 14, 1922.

154,978. TRANSFER SHEETS FOR USE IN THE ART OF PRINTING. FRANK W. HYMAN, New York, N. Y.
Filed October 12, 1921. Serial No. 154,023. PUBLISHED FEBRUARY 7, 1922.

154,979. WATER-PURIFICATION APPARATUS COMPRISING SYSTEMS OF SETTLING TANKS, CHEMICAL TANKS, FILTERS, AND HEATERS. INTERNATIONAL FILTER CO., Chicago, Ill.
Filed October 2, 1920. Serial No. 137,834. PUBLISHED JANUARY 31, 1922.

154,980. LIQUID AND PASTE PAINTS, PAINT ENAMELS, AND VARNISHES. IVOROID MIXED PAINT COMPANY, Newark, N. J.
Filed June 11, 1921. Serial No. 149,007. PUBLISHED JANUARY 31, 1922.

154,981. PUNCTURE-SEALING COMPOSITION AND PRESERVATIVE FOR PNEUMATIC TIRES. JACKSON LABORATORIES, Indianapolis, Ind.
Filed December 3, 1921. Serial No. 156,225. PUBLISHED FEBRUARY 7, 1922.

154,982. SEAL PRESSES. MARSHALL H. JACKSON, Chicago, Ill.
Filed December 4, 1920. Serial No. 140,597. PUBLISHED FEBRUARY 28, 1922.

154,983. RUBBER ERASERS. JOSEPH DIXON CRUCIBLE COMPANY, Jersey City, N. J.
Filed January 14, 1922. Serial No. 157,917. PUBLISHED FEBRUARY 21, 1922.

154,984. LOCKS AND PADLOCKS. CARL JUDYCKI, Athol, Mass.
Filed November 18, 1920. Serial No. 139,801. PUBLISHED JANUARY 31, 1922.

154,985. STEEL PLATES. THE M. W. KELLOGG COMPANY, New York, N. Y.
Filed August 25, 1921. Serial No. 152,170. PUBLISHED JANUARY 31, 1922.

154,986. LUBRICANTS CONSISTING OF OILS AND GREASES. KEYSTONE LUBRICATING COMPANY, Philadelphia, Pa.
Filed July 20, 1921. Serial No. 150,690. PUBLISHED JANUARY 31, 1922.

154,987. LUBRICANTS CONSISTING OF OILS AND GREASES. KEYSTONE LUBRICATING COMPANY, Philadelphia, Pa.
Filed September 9, 1921. Serial No. 152,759. PUBLISHED FEBRUARY 14, 1922.

154,988. EAR CONE ADAPTED TO RECEIVE MEDICINE AND BE PLACED IN THE EAR FOR HEALING EFFECTS. GEORGE C. KLIPPERT CHEMICAL CO., Mount Vernon, N. Y.
Filed November 1, 1921. Serial No. 154,879. PUBLISHED JANUARY 31, 1922.

154,989. STEAM LOCOMOTIVES, TURNTABLES, BUCKET EXCAVATORS, CONCRETE MIXERS, DUMP BUCKETS, TIPPLES, MECHANICAL SWITCH THROWS, CAR REPLACERS, AND CERTAIN BEARINGS. KOPPEL INDUSTRIAL CAR & EQUIPMENT COMPANY, Koppel and Pittsburgh, Pa.
Filed May 13, 1920. Serial No. 132,394. PUBLISHED FEBRUARY 7, 1922.

154,990. TOILET BRUSHES—NAMELY, TOOTH, NAIL, HAND, HAIR, CLOTH, AND HAT BRUSHES. KYOTO MANUFACTURING & TRADING CO., New York, N. Y.
Filed August 8, 1921. Serial No. 151,545. PUBLISHED JANUARY 31, 1922.

154,991. SHEETING. LANETT COTTON MILLS, Lanett, Ala.
Filed November 10, 1921. Serial No. 155,266. PUBLISHED FEBRUARY 7, 1922.

154,992. PIANOS AND PLAYER PIANOS. LAUTER-HUMANA COMPANY, Newark, N. J.
Filed June 1, 1921. Serial No. 148,497. PUBLISHED FEBRUARY 21, 1922.

154,993. TENNIS RACKETS. HARRY C. LEE & COMPANY, INC., New York, N. Y.
Filed December 30, 1921. Serial No. 157,320. PUBLISHED FEBRUARY 14, 1922.

154,994. HANDKERCHIEFS. HENRY H. LEON CO., New York, N. Y.
Filed October 19, 1921. Serial No. 154,316. PUBLISHED JANUARY 31, 1922.

154,995. EXPANSION BOLTS. LE ROY MONTGOMERY, South Norwalk, Conn.
Filed March 5, 1921. Serial No. 144,340. PUBLISHED MAY 24, 1921.

154,996. CUTLERY—VIZ, SCISSORS, POCKETKNIVES, CARVING KNIVES, RAZORS, AND RAZOR BLADES. LESSMANN BROS., New York, N. Y.
Filed April 20, 1921. Serial No. 146,445. PUBLISHED FEBRUARY 14, 1922.

154,997. SEALING TAPE. LIBERTY PAPER CO., New York, N. Y.
Filed December 10, 1921. Serial No. 156,537. PUBLISHED JANUARY 31, 1922.

154,998. SMOKING AND CHEWING TOBACCO AND CIGARETTES. LIGGETT & MYERS TOBACCO COMPANY, New York, N. Y.
Filed October 25, 1920. Serial No. 138,773. PUBLISHED APRIL 12, 1921.

154,999. WRITING PAPER. E. E. LLOYD PAPER COMPANY, Chicago, Ill.
Filed November 14, 1921. Serial No. 155,354. PUBLISHED JANUARY 31, 1922.

155,000. SUBSTITUTE FOR PREPARED SHELLAC. THE LOWE BROTHERS COMPANY, Dayton, Ohio.
Filed October 17, 1921. Serial No. 154,219. PUBLISHED JANUARY 3, 1922.

155,001. MALTLESS FOUNTAIN DRINKS AND SIRUPS AND EXTRACTS THEREFOR. MCCORMICK & CO. INC., Baltimore, Md.
Filed October 26, 1921. Serial No. 154,604. PUBLISHED JANUARY 31, 1922.

155,002. GINGER ALE. J. J. MCLAUGHLIN LIMITED, Toronto, Ontario, Canada.
Filed June 21, 1921. Serial No. 149,468. PUBLISHED JANUARY 31, 1922.

155,003. SILK PIECE GOODS. H. R. MALLINSON & CO. INC., New York, N. Y.
Filed November 23, 1921. Serial No. 155,820. PUBLISHED FEBRUARY 14, 1922.

155,004. PREPARED SHELLAC SUBSTITUTE. THE MANTROSE CORPORATION, New York, N. Y.
Filed January '13, 1920. Serial No. 127,095. PUBLISHED APRIL 26, 1921.

155,005. BEDSPREADS. MARSHALL FIELD & COMPANY, Chicago, Ill.
Filed November 27, 1920. Serial No. 140,324. PUBLISHED FEBRUARY 21, 1922.

155,006. CATAMENIAL BANDAGES. JOHN B. MARSHALL, Catonsville, Md.
Filed July 10, 1919. Serial No. 120,426. PUBLISHED AUGUST 10, 1920.

155,007. BROOMS. W. L. MARTIN BROOM & MOP CO., Louisville, Ky.
Filed December 14, 1921. Serial No. 156,705. PUBLISHED FEBRUARY 7, 1922.

155,008. BROOMS. W. L. MARTIN BROOM & MOP CO., Louisville, Ky.
Filed December 14, 1921. Serial No. 156,706. PUBLISHED FEBRUARY 7, 1922.

155,009. BROOMS. W. L. MARTIN BROOM & MOP CO., Louisville, Ky.
Filed December 14, 1921. Serial No. 156,707. PUBLISHED FEBRUARY 7, 1922.

155,010. LUBRICATING OILS AND GREASES. MASON CITY OIL & GREASE COMPANY, Mason City, Iowa.
Filed August 16, 1921. Serial No. 151,839. PUBLISHED FEBRUARY 14, 1922.

155,011. BODY AND SHOULDER BRACE. MAYOR MASON, Glendale, Calif.
Filed November 30, 1921. Serial No. 156,104. PUBLISHED JANUARY 31, 1922.

155,012. PHONOGRAPHS AND PARTS THEREFOR AND PHONOGRAPH RECORDS. BENOIT & MATHIEU, Montreal, Quebec, Canada.
Filed May 25, 1921. Serial No. 148,197. PUBLISHED JANUARY 31, 1922.

155,013. MARKING TOOLS, CONSISTING OF BRASS PRINTING DIES, BRANDS, AND DIES MADE OF STEEL FOR MARKING ARTICLES FORMED OF METAL. JAS. H. MATTHEWS & CO., Pittsburgh, Pa.
Filed March 9, 1921. Serial No. 144,532. PUBLISHED FEBRUARY 14, 1922.

155,014. CIGARETTES. MICHEL MAVROMATAS, New York, N. Y.
Filed January 29, 1921. Serial No. 142,936. PUBLISHED FEBRUARY 7, 1922.

155,015. LEAD PENCILS. MAYS MANUFACTURING CO. INC., Providence, R. I.
Filed December 7, 1921. Serial No. 156,397. PUBLISHED JANUARY 31, 1922.

155,016. GOLF-CLUB HEADS. METAL & ALLOY SPECIALTIES COMPANY, INC., Buffalo, N. Y.
Filed December 8, 1921. Serial No. 156,456. PUBLISHED JANUARY 31, 1922.

155,017. MIXING APPARATUSES FOR SODA FOUNTAINS. THE METALLOGRAPH CORPORATION, New York, N. Y.
Filed September 20, 1921. Serial No. 153,149. PUBLISHED JANUARY 31, 1922.

155,018. SOAP. CYRUS R. MEYER, Baltimore, Md.
Filed September 21, 1921. Serial No. 153,182. PUBLISHED DECEMBER 13, 1921.

155,019. CLEANING APPARATUS FOR FILTER PARTS. MIDWEST STEEL & SUPPLY COMPANY, INC., New York, N. Y.
Filed October 26, 1921. Serial No. 154,610. PUBLISHED FEBRUARY 14, 1922.

155,020. A MONTHLY TRADE PUBLICATION. MONROE TIRE CORPORATION, Chicago, Ill.
Filed November 8, 1920. Serial No. 139,361. PUBLISHED FEBRUARY 8, 1921.

155,021. LOCKS AND SAFES. NAAMLOOZE VENNOOTSCHAP HANDEL-MAATSCHAPPIJ PLANEET, The Hague, Netherlands.
Filed August 24, 1920. Serial No. 136,426. PUBLISHED JANUARY 31, 1922.

155,022. GOLF BALLS AND GOLF CLUBS. HERBERT NALTY, London, England.
Filed December 20, 1921. Serial No. 156,970. PUBLISHED FEBRUARY 14, 1922.

155,023. CERTAIN ARTICLES OF CLOTHING. NATIONAL CLOAK & SUIT CO., New York, N. Y.
Filed August 3, 1918. Serial No. 112,501. PUBLISHED JUNE 7, 1921.

155,024. MILLING CUTTERS, REAMERS, COUNTER BORES, HOBS, GEAR CUTTERS, METAL SLITTING SAWS, DRILLS, TAPS AND AUTOMATIC SCREW-MACHINE TOOLS. THE NATIONAL TOOL COMPANY, Cleveland, Ohio.
Filed April 22, 1921. Serial No. 146,579. PUBLISHED JANUARY 31, 1922.

155,025. COLORS AND TINTS IN DRY POWDER FORM. P. W. NELSON INC., Brooklyn, N. Y., and Chicago, Ill.
Filed November 9, 1921. Serial No. 155,232. PUBLISHED FEBRUARY 14, 1922.

155,026. LITHOPONE. THE NEW JERSEY ZINC COMPANY, Newark and Franklin, N. J.
Filed September 16, 1920. Serial No. 137,267. PUBLISHED JANUARY 17, 1922.

155,027. WAX PAPER. NEWARK PARAFFINE AND PARCHMENT PAPER CO., New York, N. Y.
Filed November 17, 1921. Serial No. 155,516. PUBLISHED JANUARY 31, 1922.

155,028. GOLD ALLOYS FOR DENTAL PURPOSES—NAMELY, GOLD PLATE. THE J. M. NEY COMPANY, Hartford, Conn.
Filed November 25, 1921. Serial No. 155,905. PUBLISHED JANUARY 31, 1922.

155,029. GOLD ALLOYS FOR DENTAL PURPOSES—NAMELY, CASTING GOLD. THE J. M. NEY COMPANY, Hartford, Conn.
Filed November 25, 1921. Serial No. 155,906. PUBLISHED JANUARY 31, 1922.

155,030. GOLD ALLOYS FOR DENTAL PURPOSES—NAMELY, BAND MATERIAL. THE J. M. NEY COMPANY, Hartford, Conn.
Filed November 25, 1921. Serial No. 155,909. PUBLISHED JANUARY 31, 1922.

155,031. GOLD ALLOYS FOR DENTAL PURPOSES—NAMELY, GOLD PLATE. THE J. M. NEY COMPANY, Hartford, Conn.
Filed November 25, 1921. Serial No. 155,913. PUBLISHED JANUARY 31, 1922.

155,032. GOLD ALLOYS FOR DENTAL PURPOSES—NAMELY, BAND MATERIAL. THE J. M. NEY COMPANY, Hartford, Conn.
Filed November 25, 1921. Serial No. 155,914. PUBLISHED JANUARY 31, 1922.

155,033. GOLD ALLOYS FOR DENTAL PURPOSES—NAMELY, SPRING GOLD. THE J. M. NEY COMPANY, Hartford, Conn.
Filed November 25, 1921. Serial No. 155,918. PUBLISHED JANUARY 31, 1922.

155,034. GOLD ALLOYS FOR DENTAL PURPOSES—NAMELY, BAND MATERIAL. THE J. M. NEY COMPANY, Hartford, Conn.
Filed November 25, 1921. Serial No. 155,924. PUBLISHED JANUARY 31, 1922.

155,035. GOLD ALLOYS FOR DENTAL PURPOSES—NAMELY, GOLD PLATE. THE J. M. NEY COMPANY, Hartford, Conn.
Filed November 25, 1921. Serial No. 155,927. PUBLISHED JANUARY 31, 1922.

155,036. LIQUID FUEL OILS. NORTHWESTERN OIL COMPANY, Superior, Wis., and Duluth, Minn.
Filed December 6, 1921. Serial No. 156,335. PUBLISHED FEBRUARY 14, 1922.

155,037. TOY BALLOONS—NAMELY, SMALL AIRSHIP BALLOONS, TWO-COLOR BALLOONS, VALVE BALLOONS, AND SQUAWKER BALLOONS. THE OAK RUBBER COMPANY, Ravenna, Ohio.
Filed May 18, 1921. Serial No. 147,889. PUBLISHED JANUARY 31, 1922.

155,038. TOY BALLOONS—NAMELY, SMALL AIRSHIP BALLOONS, TWO-COLOR BALLOONS, VALVE BALLOONS, AND SQUAWKER BALLOONS. THE OAK RUBBER COMPANY, Ravenna, Ohio.
Filed May 18, 1921. Serial No. 147,890. PUBLISHED JANUARY 31, 1922.

155,039. LUBRICATING OIL. OKLAHOMA PRODUCING AND REFINING CORPORATION OF AMERICA, Tulsa, Okla.
Filed January 7, 1922. Serial No. 157,632. PUBLISHED FEBRUARY 14, 1922.

155,040. FILING CARDS. OXFORD FILING SUPPLY CO., Brooklyn, N. Y.
Filed June 23, 1921. Serial No. 149,555. PUBLISHED JANUARY 31, 1922.

155,041. CERTAIN NAMED TOYS. OXFORD-PRINT, Boston, Mass.
Filed April 29, 1919. Serial No. 117,985 PUBLISHED FEBRUARY 7, 1922.

155,042. CANDIES. PACIFIC COAST BISCUIT COMPANY, Seattle, Wash.
Filed March 7, 1921. Serial No. 144,416. PUBLISHED JUNE 28, 1921.

155,043. MALT EXTRACT. PACIFIC MALT & HOP CO. INC., Brooklyn, N. Y.
Filed September 10, 1921. Serial No. 152,766. PUBLISHED JANUARY 31, 1922.

155,044. FOUNTAIN PENS. THE PARKER PEN CO., Janesville, Wis.
Filed January 14, 1922. Serial No. 157,956. PUBLISHED FEBRUARY 21, 1922.

155,045. PRINTING AND WRITING PAPER. PARSONS PAPER COMPANY, Holyoke, Mass.
Filed November 17, 1921. Serial No. 155,519. PUBLISHED JANUARY 31, 1922.

155,046. PAPER WEIGHTS. SAMUEL C. PATCHETT, Washington, D. C.
Filed October 21, 1921. Serial No. 154,417. PUBLISHED FEBRUARY 21, 1922.

155,047. NEEDLES OR STYLI FOR SOUND-REPRODUCING INSTRUMENTS. PERMANENT MANUFACTURING CO., Oakland, Calif.
Filed January 25, 1921. Serial No. 142,766. PUBLISHED FEBRUARY 14, 1922.

155,048. HANDLE EXTENSIONS. PETERSON AND GOODMAN, Chicago, Ill.
Filed October 20, 1921. Serial No. 154,380. PUBLISHED JANUARY 31, 1922.

155,049. PHONOGRAPHIC SOUND RECORDS OR PLATES. POLYPHONWERKE AKTIENGESELLSCHAFT, Berlin, Germany.
Filed April 1, 1921. Serial No. 145,582. PUBLISHED JANUARY 10, 1922.

155,050. CERTAIN NAMED ACCESSORIES AND SUPPLIES FOR PHONOGRAPHS. POLYPHONWERKE AKTIENGESELLSCHAFT, Berlin, Germany.
Filed April 1, 1921. Serial No. 145,586. PUBLISHED FEBRUARY 14, 1922.

155,051. METAL FLOWER POTS. THE PORCIRON MFG. CO., Royersford, Pa.
Filed December 21, 1921. Serial No. 157,003. PUBLISHED FEBRUARY 7, 1922.

155,052. MANILA ROPE. THE PORTLAND CORDAGE CO., Portland, Oreg.
Filed July 13, 1920. Serial No. 134,911. PUBLISHED MARCH 22, 1921.

155,053. LUBRICATING OIL. THE POWER-OIL CO. LTD., St. Louis, Mo.
Filed November 18, 1921. Serial No. 155,571. PUBLISHED FEBRUARY 7, 1922.

155,054. PIANOS AND PIANO PLAYERS. PREMIER GRAND PIANO CORPORATION, New York, N. Y.
Filed May 22, 1920. Serial No. 132,808. PUBLISHED MARCH 22, 1921.

155,055. LEATHER GOODS—NAMELY, HAND AND TRAVELING BAGS, PURSES, TOILET KITS, PORTFOLIOS, AND MUSIC BOXES. PROGRESSIVE LEATHER GOODS CO., New York, N. Y.
Filed August 11, 1919. Serial No. 121,542. PUBLISHED SEPTEMBER 28, 1920.

155,056. PHONOGRAPH SOUND-BOX ATTACHMENTS FOR GOVERNING THE NOISE AND TONE OF RECORDS. RICHARD QUINN, Philadelphia, Pa.
Filed November 15, 1921. Serial No. 155,418. PUBLISHED JANUARY 31, 1922.

155,057. CERTAIN CHEESECLOTH, GAUZE, AND MUSLIN USED FOR INTERLINING GARMENTS. JACOB A. RAINFORD, Bergenfield, N. J.
Filed May 24, 1921. Serial No. 148,167. PUBLISHED JANUARY 31, 1922.

155,058. MINERAL WATER. RATHJEN-EGGERS COMPANY, San Francisco, Calif.
Filed December 3, 1921. Serial No. 156,239. PUBLISHED JANUARY 31, 1922.

155,059. TOBACCO PRODUCTS, NAMELY, CIGARS, STOGIES, CIGARETTES, SMOKING TOBACCO, AND CHEWING TOBACCO. RAUCH CIGAR COMPANY, INC., Indianapolis, Ind.
Filed November 7, 1921. Serial No. 155,120. PUBLISHED FEBRUARY 14, 1922.

155,060. METAL PIPE FITTINGS, PIPE HANGERS, VALVES, AND NUTS. JAMES D. RAWLES COMPANY, Boston, Mass.
Filed November 22, 1920. Serial No. 139,989. PUBLISHED FEBRUARY 14, 1922.

155,061. NONALCOHOLIC, MALTLESS, NONCEREAL BEVERAGES SOLD AS SOFT DRINKS. REAL FRUIT BEVERAGE CO., South Bend, Ind.
Filed October 9, 1920. Serial No. 138,138. PUBLISHED FEBRUARY 7, 1922.

155,062. LUBRICATING OILS, GASOLINE, AND LUBRICATING GREASES. RED "C" OIL MANUFACTURING CO., Baltimore, Md.
Filed January 17, 1920. Serial No. 127,261. PUBLISHED FEBRUARY 14, 1922.

155,063. CASH REGISTERS AND PARTS THEREOF. REMINGTON ARMS COMPANY, INC., Bridgeport, Conn., Ilion and New York, N. Y., and Swanton, Vt.
Filed June 2, 1921. Serial No. 148,553. PUBLISHED FEBRUARY 14, 1922.

155,064. CASH REGISTERS AND PARTS THEREOF. REMINGTON ARMS COMPANY, INC., Bridgeport, Conn., Ilion and New York, N. Y., and Swanton, Vt.
Filed June 2, 1921. Serial No. 148,554. PUBLISHED FEBRUARY 14, 1922.

155,065. UPHOLSTERERS' TACKS. G. G. ROBERTS CORPORATION, Whitman, Mass.
Filed January 15, 1921. Serial No. 142,306. PUBLISHED JANUARY 31, 1922.

155,066. PHONOGRAPH RECORDS. THE RODEHEAVER COMPANY, Philadelphia, Pa., and Chicago, Ill.
Filed April 5, 1921. Serial No. 145,753. PUBLISHED JANUARY 31, 1922.

155,067. LABORATORY APPARATUS, PARTICULARLY FOR PHYSICIANS' MEASURING APPARATUS FOR LIQUIDS AND SHAKING APPARATUS FOR TREATING LIQUIDS. LOYAL D. ROGERS, Chicago, Ill.
Filed November 14, 1921. Serial No. 155,367. PUBLISHED FEBRUARY 14, 1922.

155,068. REFRIGERATORS. J. ROSE & CO. INC., New York, N. Y.
Filed January 6, 1922. Serial No. 157,589. PUBLISHED FEBRUARY 21, 1922.

155,069. DEVICES FOR HOLDING RAZOR BLADES FOR STROPPING PURPOSES. REYNOLD W. ROSENDAHL, Philadelphia, Pa.
Filed September 10, 1921. Serial No. 152,805. PUBLISHED JANUARY 31, 1922.

155,070. CIGARS. ROSENTHAL BROS. & BENDETSON, Boston, Mass.
Filed March 6, 1920. Serial No. 129,351. PUBLISHED FEBRUARY 7, 1922.

155,071. CERTAIN NAMED CEMENTS. RUBBER AND CEMENTS, INCORPORATED, Chicago, Ill.
Filed October 10, 1921. Serial No. 153,955. PUBLISHED JANUARY 3, 1922.

155,072. CIGARS, CIGARETTES, AND SMOKING AND CHEWING TOBACCO. SAMOS CIGARETTE & TOBACCO CO. INC., New York, N. Y.
Filed January 22, 1921. Serial No. 142,676. PUBLISHED JANUARY 31, 1922.

155,073. CORD AND TWINE. SAMSON CORDAGE WORKS, Boston, Mass.
Filed December 1, 1921. Serial No. 156,180. PUBLISHED FEBRUARY 7, 1922.

155,074. MALTLESS SIRUPS, INCLUDING LARGELY SUGAR, WATER, AND FLAVORING EXTRACTS FOR USE IN NONALCOHOLIC BEVERAGES. SANTERBA PERFUMERY MANUFACTURER INC., New York, N. Y.
Filed May 13, 1920. Serial No. 132,414. PUBLISHED FEBRUARY 7, 1922.

155,075. NONALCOHOLIC, NONCEREAL, MALTLESS BEVERAGES SOLD AS SOFT DRINKS AND SIRUPS THEREFOR. SAVANNAH BEVERAGE & ICE CO., Savannah, Ga.
Filed June 14, 1920. Serial No. 133,710. PUBLISHED SEPTEMBER 28, 1920.

155,076. PAPER FOR PRINTING AND WRITING PURPOSES, WRAPPING PAPERS, CARDBOARD, BOX BOARD, AND MAILING ENVELOPES. J. & J. SCOTT, LTD., New York, N. Y.
Filed December 1, 1921. Serial No. 156,177. PUBLISHED JANUARY 31, 1922.

155,077. SCRATCH FILLERS. ALFRED SHALES, Newton, Mass.
Filed September 14, 1920. Serial No. 137,186. PUBLISHED FEBRUARY 14, 1922.

155,078. GLUE. THE SHERWIN-WILLIAMS COMPANY, Cleveland, Ohio.
Filed September 10, 1920. Serial No. 137,050. PUBLISHED FEBRUARY 7, 1922.

155,079. SKIN LOTIONS. CLAY W. HOLMES, deceased, by Floyd M. Shoemaker, administrator, Elmira, N. Y., assignor to Flora H. Shoemaker.
Filed February 16, 1921. Serial No. 143,641. PUBLISHED JULY 26, 1921.

155,080. FEED CUTTERS, ENSILAGE CUTTERS, AND FODDER SHREDDERS. THE SILVER MANUFACTURING COMPANY, Salem, Ohio.
Filed October 27, 1920. Serial No. 138,880. PUBLISHED FEBRUARY 1, 1921.

155,081. FAMILY AND MANUFACTURING SEWING MACHINES, THEIR PARTS, AND ATTACHMENTS. THE SINGER MANUFACTURING COMPANY, Elizabeth, N. J., and New York, N. Y.
Filed July 1, 1921. Serial No. 149,935. PUBLISHED FEBRUARY 14, 1922.

155,082. HAIR NETS. SITROUX IMPORTING COMPANY, INC., New York, N. Y.
Filed November 22, 1921. Serial No. 155,781. PUBLISHED FEBRUARY 14, 1922.

155,083. HAIR NETS. SITROUX IMPORTING COMPANY, INC., New York, N. Y.
Filed November 22, 1921. Serial No. 155,783. PUBLISHED FEBRUARY 14, 1922.

155,084. HAIR NETS. SITROUX IMPORTING COMPANY, INC., New York, N. Y.
Filed November 22, 1921. Serial No. 155,787. PUBLISHED FEBRUARY 14, 1922.

155,085. HAIR NETS. SITROUX IMPORTING COMPANY, INC., New York, N. Y.
Filed November 22, 1921. Serial No. 155,788. PUBLISHED FEBRUARY 14, 1922.

155,086. LADIES' SHOES OF LEATHER AND OF FABRIC. SMALTZ-GOODWIN COMPANY, Philadelphia, Pa.
Filed April 28, 1921. Serial No. 146,936. PUBLISHED NOVEMBER 8, 1921.

155,087. IMITATIONS OF OR SUBSTITUTES FOR GOLD LEAF AND SILVER LEAF. THE J. L. N. SMYTHE COMPANY, Philadelphia, Pa.
Filed October 19, 1921. Serial No. 154,331. PUBLISHED JANUARY 31, 1922.

155,088. AXLE GREASE AND OTHER LUBRICATING OILS AND GREASES. THE SNOW FLAKE AXLE GREASE COMPANY, Boston, Mass.
Filed February 17, 1921. Serial No. 143,715. PUBLISHED OCTOBER 11, 1921.

155,089. GASOLINE. SOUTHERN OIL CORPORATION, Kansas City, Mo.
Filed June 10, 1920. Serial No. 133,560. PUBLISHED APRIL 26, 1921.

155,090. PETROLEUM AND CERTAIN NAMED PRODUCTS THEREOF. STANDARD OIL COMPANY OF NEW YORK, New York, N. Y.
Filed August 17, 1920. Serial No. 136,206. PUBLISHED FEBRUARY 7, 1922.

155,091. CLOTHING CONSISTING OF COATS, VESTS, AND PANTS. STEIN BROS. MFG. CO., Williamsport, Pa.
Filed July 10, 1920. Serial No. 134,792. PUBLISHED NOVEMBER 9, 1920.

155,092. MALT SIRUP FOR BEVERAGES. HARRISON D. STERRICK, Pittsburgh, Pa.
Filed November 2, 1921. Serial No. 154,940. PUBLISHED JANUARY 31, 1922.

155,093. MAGAZINE ISSUED TWICE MONTHLY. STREET & SMITH CORPORATION, New York, N. Y.
Filed November 12, 1921. Serial No. 155,324. PUBLISHED JANUARY 17, 1922.

155,094. CARPET SWEEPERS, TABLE FORKS, TOOL HANDLES, LAWN MOWERS, AND CERTAIN TOOLS AND ARTICLES OF CUTLERY. STREVELL-PATERSON HARDWARE CO., Salt Lake City, Utah.
Filed May 24, 1921. Serial No. 148,174. PUBLISHED JANUARY 31, 1922.

155,095. WRAPPING PAPER. FRED C. STRYPE, New York, N. Y.
Filed December 23, 1921. Serial No. 157,082. PUBLISHED JANUARY 31, 1922.

155,096. CENTRIFUGAL FANS. B. F. STURTEVANT COMPANY, Boston, Mass.
Filed September 1, 1921. Serial No. 152,493. PUBLISHED JANUARY 31, 1922.

155,097. MAGAZINE PENCILS. JULIUS SWANBERG, Chicago, Ill.
Filed July 5, 1921. Serial No. 150,041. PUBLISHED FEBRUARY 28, 1922.

155,098. NONALCOHOLIC, MALTLESS BEVERAGES SOLD AS SOFT DRINKS. TENPENNY COMPANY, INCORPORATED, Norfolk, Va.
Filed December 14, 1921. Serial No. 156,725. PUBLISHED JANUARY 31, 1922.

155,099. GASOLINE. TULSA OIL PRODUCTS CO., Tulsa, Okla.
Filed December 7, 1921. Serial No. 156,421. PUBLISHED FEBRUARY 14, 1922.

155,100. MINERAL OILS AND GREASES. TULSA REFINED OIL COMPANY, Tulsa, Okla.
Filed July 15, 1921. Serial No. 150,424. PUBLISHED JANUARY 31, 1922.

155,101. SMOKING AND CHEWING TOBACCO, CIGARETTES, CIGARS, AND SNUFF. "TURMAC" TURKISH-MACEDONIAN TOBACCO COMPANY, Arnhem, Holland.
Filed December 13, 1921. Serial No. 156,664. PUBLISHED FEBRUARY 14, 1922.

155,102. DROP FORGINGS AND CASTINGS. TWIN CITY FORGE AND FOUNDRY COMPANY, Stillwater, Minn.
Filed January 24, 1921. Serial No. 142,731. PUBLISHED FEBRUARY 14, 1922.

155,103. ELECTRICAL WARMING APPARATUS. TWINPLEX SALES CO., St. Louis, Mo.
Filed October 14, 1921. Serial No. 154,097. PUBLISHED JANUARY 31, 1922.

155,104. STEEL CLAMPS, HACK-SAW FRAMES, SCRIBERS, SCREW DRIVERS, NAIL SETS, AND CENTER PUNCHES. UNION TOOL COMPANY, Orange, Mass.
Filed February 21, 1921. Serial No. 143,900. PUBLISHED MAY 3, 1921.

155,105. LUBRICATING OILS. THE UNITED OIL COMPANY, INCORPORATED, Baltimore, Md.
Filed December 30, 1921. Serial No. 157,347. PUBLISHED FEBRUARY 14, 1922.

155,106. FRUIT AND VEGETABLE WRAPPERS. UNITED PAPER COMPANY, Atlanta, Ga.
Filed December 7, 1921. Serial No. 156,423. PUBLISHED FEBRUARY 28, 1922.

155,107. READY-MIXED PAINTS. UNITED STATES GUTTA PERCHA PAINT COMPANY, Saco, Me., and Providence, R. I.
Filed October 11, 1920. Serial No. 138,192. PUBLISHED MAY 17, 1921.

155,108. PHONOGRAPH OR SOUND-REPRODUCING INSTRUMENT. THE VAN TOY CO., Cleveland, Ohio.
Filed November 21, 1921. Serial No. 155,719. PUBLISHED JANUARY 10, 1922.

155,109. PAINTERS' BRUSHES. WADSWORTH, HOWLAND & CO., INCORPORATED, Boston, Mass.
Filed September 27, 1921. Serial No. 153,421. PUBLISHED FEBRUARY 7, 1922.

155,110. MAGAZINE PENCILS. THE WALDREF MANUFACTURING CO., St. Paul, Minn.
Filed December 2, 1921. Serial No. 156,205. PUBLISHED FEBRUARY 28, 1922.

155,111. DUPLICATOR ROLLS AND LEAD PENCILS. WALSH DUPLICATOR CORP., New York, N. Y.
Filed September 12, 1921. Serial No. 152,875. PUBLISHED FEBRUARY 28, 1922.

155,112. TOILET PAPER. S. WALTER INC., Philadelphia, Pa.
Filed January 6, 1922. Serial No. 157,594. PUBLISHED FEBRUARY 14, 1922.

155,113. TRANSMISSIONS, DIFFERENTIALS, CLUTCHES, CONTROL LEVERS AND GEARS FOR AUTOMOTIVE VEHICLES. WARNER GEAR COMPANY, Muncie, Ind.
Filed August 17, 1921. Serial No. 151,897. PUBLISHED FEBRUARY 7, 1922.

155,114. PRINTING PAPER. S. D. WARREN COMPANY, Boston, Mass.
Filed December 12, 1921. Serial No. 156,612. PUBLISHED FEBRUARY 21, 1922.

155,115. POULTRY COOPS, POULTRY BOXES, EGG CASES, BUTTER BOXES, AND PACKING BOXES. WEBSTER BROTHERS MANUFACTURING COMPANY, Waucoma, Iowa.
Filed September 16, 1921. Serial No. 153,024. PUBLISHED JANUARY 31, 1922.

155,116. FOUR-WHEELED PLAY WAGONS FOR CHILDREN. H. C. WHITE COMPANY, North Bennington, Vt.
Filed May 2, 1921. Serial No. 147,142. PUBLISHED FEBRUARY 14, 1922.

155,117. MOP WRINGERS. WHITE MOP WRINGER CO., Fultonville, N. Y.
Filed July 18, 1921. Serial No. 150,580. PUBLISHED FEBRUARY 7, 1922.

155,118. DENTAL FILES AND DENTAL SAWS. THE S. S. WHITE DENTAL MANUFACTURING COMPANY, Philadelphia, Pa.
Filed August 3, 1920. Serial No. 135,771. PUBLISHED FEBRUARY 14, 1922.

155,119. TOILET PAPER. WHITE-WASHBURNE COMPANY, INC., Hinsdale, N. H.
Filed January 26, 1922. Serial No. 158,504. PUBLISHED FEBRUARY 28, 1922.

155,120. TOILET PAPER. WHITE-WASHBURNE COMPANY, INC., Hinsdale, N. H.
Filed January 26, 1922. Serial No. 158,505. PUBLISHED FEBRUARY 28, 1922.

155,121. TOILET PAPER. WHITE-WASHBURNE COMPANY, INC., Hinsdale, N. H.
Filed January 26, 1922. Serial No. 158,506. PUBLISHED FEBRUARY 28, 1922.

155,122. TOILET PAPER. WHITE-WASHBURNE COMPANY, INC., Hinsdale, N. H.
Filed January 26, 1922. Serial No. 158,508. PUBLISHED FEBRUARY 28, 1922.

155,123. WRITING PAPERS AND MAILING ENVELOPES. WHITING PAPER COMPANY, Holyoke, Mass.
Filed January 11, 1922. Serial No. 157,785. PUBLISHED FEBRUARY 14, 1922.

155,124. WRITING PAPER AND MAILING ENVELOPES. WHITING PAPER COMPANY, Holyoke, Mass.
Filed November 22, 1921. Serial No. 155,792. PUBLISHED JANUARY 31, 1922.

155,125. BOTTLE-CAPPING MACHINES. GEORGE E. WHITNEY, Bridgeport, Conn.
Filed September 6, 1921. Serial No. 152,664. PUBLISHED JANUARY 31, 1922.

155,126. CIGARETTE CASES WHICH ARE MADE OF OR PLATED WITH PRECIOUS METALS. WIGHTMAN & HOUGH CO., Providence, R. I.
Filed February 14, 1919. Serial No. 115,867. PUBLISHED APRIL 29, 1919.

155,127. LIQUID STAINS. THE WILLIAM FLOOD COMPANY, Cleveland, Ohio.
Filed September 20, 1921. Serial No. 153,163. PUBLISHED JANUARY 3, 1922.

155,128. READY-MIXED ROOFING PAINT, WATERPROOFING PAINT, FILLERS, AND VARNISHES. C. A. WOOLSEY PAINT & COLOR COMPANY, Jersey City, N. J.
Filed October 14, 1921. Serial No. 154,107. PUBLISHED JANUARY 3, 1922.

155,129. FILING FOLDERS, DATA BOOKS, ARTICLE SORTING AND DISTRIBUTING FOLDERS. WORK-ORGANIZER SPECIALTIES COMPANY, Detroit, Mich.
Filed June 2, 1921. Serial No. 148,570. PUBLISHED FEBRUARY 14, 1922.

155,130. PUMPING AND CERTAIN OTHER MACHINERY. WORTHINGTON PUMP AND MACHINERY CORPORATION, New York, N. Y.
Filed June 24, 1921. Serial No. 149,607. PUBLISHED FEBRUARY 14, 1922.

155,131. A FLAVORING FOR NONALCOHOLIC, MALTLESS BEVERAGES SOLD AS SOFT DRINKS. RUIE CLARICE WYLIE, Wichita, Kans.
Filed November 29, 1921. Serial No. 156,061. PUBLISHED JANUARY 31, 1922.

155,132. TEA. YANGTZE CORPORATION, New York, N. Y., assignor, by mesne assignments, to Ming Inc., a Corporation of New York.
Filed September 3, 1920. Serial No. 136,819. PUBLISHED JULY 26, 1921.

155,133. SMOKING TOBACCO. THE ZORRO TOBACCO CO., INC., New York, N. Y.
Filed February 12, 1921. Serial No. 143,525. PUBLISHED DECEMBER 20, 1921.

TRADE-MARK REGISTRATIONS GRANTED

[ACT OF MARCH 19, 1920, SEC. 1 (b)].

MAY 16, 1922.

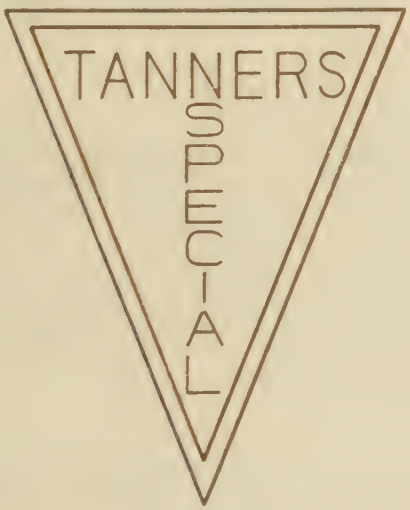
THESE REGISTRATIONS ARE NOT SUBJECT TO OPPOSITION.

155,134. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ACME ABRASIVE COMPANY, Chicago, Ill. Filed Dec. 1, 1921. Serial No. 156,129.

ACME
COMMUTATOR SMOOTHING STONE

Particular description of goods.—Grinding and Polishing Stones.
Claims use since September, 1920.

155,135. (CLASS 39. CLOTHING.) ALLEN-SQUIRE COMPANY, Spencer, Mass. Filed Apr. 29, 1921. Serial No. 146,948.



Particular description of goods.—Leather Shoes.
Claims use since Mar. 12, 1921.

155,136. (CLASS 37. PAPER AND STATIONERY.) M. ISABEL AYER, Boston, Mass. Filed Jan. 19, 1922. Serial No. 158,107.

THE AYER PEN
BOSTON

Particular description of goods.—Fountain Pens.
Claims use since Dec. 1, 1920.

155,137. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE BAKER R. & L. COMPANY, Cleveland, Ohio. Filed Aug. 27, 1920. Serial No. 136,544.

BAKER

Particular description of goods.—Automatic Make-and-Break Mechanisms for Electric Circuits.
Claims use since in or about the year 1898 with respect to passenger automobiles and trucks and parts thereof and accessories therefor, and since on or about Sept. 27, 1917, it and its predecessor have actually placed the said trade-mark upon cut-out devices for electric circuits.

155,138. (CLASS 37. PAPER AND STATIONERY.) BERKOWITZ ENVELOPE COMPANY, Kansas City, Mo. Filed June 20, 1921. Serial No. 149,378.

SUPERIOR

Particular description of goods.—Writing Paper Commonly Known as Bond Paper.
Claims use since May 1, 1912.

155,139. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) FRED BIFFAR, Jr., Chicago, Ill. Filed Apr. 22, 1921. Serial No. 146,519.

SECRET SERVICE SPECIAL

Particular description of goods.—Revolvers.
Claims use since January, 1913.

155,140. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) FRED BIFFAR, Jr., Chicago, Ill. Filed Mar. 19, 1921. Serial No. 144,959.

METROPOLITAN
POLICE

Particular description of goods.—Revolvers.
Claims use since Oct. 1, 1920.

155,141. (CLASS 39. CLOTHING.) BIRKENFELD, STRAUSS & CO., New York, N. Y. Filed May 13, 1921. Serial No. 147,653.

Particular description of goods.—Women's and Children's Underwear Made of Textile Fabric, Children's Dresses, and Women's Shirt Waists or Blouses.
Claims use since April, 1917.

155,142. (CLASS 39. CLOTHING.) BURSON KNITTING COMPANY, Rockford, Ill. Filed Mar. 5, 1921. Serial No. 144,310.

BURSON

Particular description of goods.—Hosiery.
Claims use since 1913.

155,143. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HERBERT J. CATHCART, Plainfield, N. J., and New York, N. Y. Filed Sept. 15, 1921. Serial No. 152,952.

KYRTLE CLOTH

Particular description of goods. Cotton, Woolen, or Silk Piece Goods.
Claims use since Feb. 1, 1921.

155,144. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE CENTRAL BRASS MANUFACTURING CO., Cleveland, Ohio. Filed June 20, 1921. Serial No. 149,383.

QUICK-PRESSION

Particular description of goods.—Cocks and Faucets.
Claims use since about June, 1909.

155,145. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE CINCINNATI SHAPER CO., Cincinnati, Ohio. Filed May 14, 1921. Serial No. 147,709.

CINCINNATI

Particular description of goods.—Shapers and Crank Planers.
Claims use since 1907.

155,146. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE COORS PORCELAIN COMPANY, Golden, Colo. Filed Nov. 7, 1921. Serial No. 155,086.

COORS

Particular description of goods.—Laboratory Porcelain Ware Consisting of Acid Receivers, Ball Mills, Baskets, Beakers, Boats, Bottle Rests, Bunsen Burners, Capsules, Casseroles, Cells, Draining Chambers, Cones, Crucibles, Crucible Covers, Delivery Tubes, Disks, Annealing Cups, Swimming Cups, Evaporating Dishes, Crystallizing Dishes, Funnels, Mortars, Graduated Pitchers, Color Plates, Flat Plates, Desiccator Plates, Streak Plates, Spatulas, Mercury Troughs, Pyrometer Tubes, Combustion Tubes, Porous Cells, Porous Cups, Porous Flasks, Porous Filters, Porous Plates (Round), Porous Plates (Square), Porous Plates (Dinner Plate Shape).
Claims use since about Jan. 1, 1915.

155,147. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) RUPERT COX, Kansas City, Mo. Filed Feb. 9, 1920. Serial No. 128,144.

YOU
SEE WHAT YOU GET
GET WHAT YOU SEE

Particular description of goods.—Visible Measuring Gasoline-Dispensing Pumps and Visible Measuring Attachment for Gasoline-Measuring Dispensing Pumps.
Claims use since Aug. 14, 1918.

155,148. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) A. DOUGHERTY, New York, N. Y. Filed Jan. 13, 1922. Serial No. 157,888.

Particular description of goods.—Playing Cards.
Claims use since about 1890.

155,149. (CLASS 37. PAPER AND STATIONERY.) THE DUPLEX ENVELOPE COMPANY, Quincy, Ill. Filed May 20, 1921. Serial No. 147,954.

Duplex mailing Envelope two in one

Particular description of goods.—Envelopes for Mailing Articles and for Correspondence.
Claims use since Jan. 1, 1921.

155,150. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FORSTMANN & HUFFMANN COMPANY, Passaic, N. J. Filed Dec. 11, 1920. Serial No. 140,936.

Gerona

Particular description of goods.—Woolen Piece Goods.
Claims use since Nov. 15, 1920.

155,151. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) FUNK & WAGNALLS COMPANY, New York, N. Y. Filed June 10, 1920. Serial No. 133,531.

INTERNATIONAL COLLEGE OF LANGUAGES

Particular description of goods.—Phonograph Records.
Claims use since Oct. 4, 1900.

155,152. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE GEM HAMMOCK & FLY NET COMPANY, Milwaukee, Wis. Filed Jan. 10, 1921. Serial No. 142,016.

Velvetstep

Particular description of goods.—Cotton and Woolen Rugs.
Claims use since Dec. 24, 1920.

155,153. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HARDINGE COMPANY, New York, N. Y. Filed Dec. 10, 1921. Serial No. 156,526.

CONICAL MILL

Particular description of goods.—Ball and Pebble Mills.
Claims use since December, 1908.

155,154. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) W. H. HOLBROOK COMPANY, Boston, Mass. Filed Aug. 31, 1920. Serial No. 136,680.

DOUBLE-TWILL

Particular description of goods.—Shoe-Linings of Textile Fabric in the Piece.
Claims use since Jan. 1, 1920.

155,155. (CLASS 39. CLOTHING.) E. H. HORWOOD & CO., Hoboken, N. J., and New York, N. Y. Filed Aug. 13, 1921. Serial No. 151,761.

DUPLEX

Particular description of goods.—Brassières.
Claims use since Dec. 15, 1908.

155,156. (CLASS 39. CLOTHING.) HOUSE DRESS APRON CO., INC., Amsterdam, N. Y. Filed Dec. 16, 1920. Serial No. 141,172.

House
Dress Apron

Particular description of goods.—Aprons.
Claims use since Oct. 20, 1920.

155,157. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) KAHGA IMPORTING COMPANY, New York, N. Y. Filed Jan. 7, 1922. Serial No. 157,617.

SMUTHSLIP

Particular description of goods. Silk Piece Goods.
Claims use since Aug. 1, 1920.

155,158. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) GUSTAV KLEMPERER, New York, N. Y. Filed Nov. 17, 1921. Serial No. 155,501.

Fine as Gossamer
Strong as Gold

Particular description of goods. -Hair Nets.
Claims use since about January, 1919.

155,159. (CLASS 39. CLOTHING.) MACUNGIE SHOE MANUFACTURING COMPANY, Macungie, Pa. Filed Apr. 10, 1920. Serial No. 130,974.

Particular description of goods.—Infants' and Children's Turn Shoes and Slippers in Cloth, Leather, Worsted, Rubber, and Canvas.
Claims use since Feb. 16, 1920.

155,160. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) MADISON PIANO COMPANY, INC., New York, N. Y. Filed Dec. 27, 1921. Serial No. 157,165.

MADISON

Particular description of goods.—Pianos, Electric Pianos, Reproducing Pianos, and Player Pianos.
Claims use since Jan. 9, 1918.

155,161. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE MARTIN BAND INSTRUMENT COMPANY, Elkhart, Ind. Filed Jan. 28, 1922. Serial No. 158,577.

Martin

Particular description of goods.—Saxaphones, Clarinets, Piccolos, Flutes, and Horns.
Claims use since July 20, 1920.

155,162. (CLASS 39. CLOTHING.) LOUIS MILLER, Brooklyn, N. Y. Filed Sept. 14, 1921. Serial No. 152,926.

TRADE
MILLER
MARK

Particular description of goods.—Men's Dress Shirts.
Claims use since Apr. 1, 1913.

155,163. (CLASS 39. CLOTHING.) HENRY MYER & COMPANY, Baltimore, Md. Filed Sept. 13, 1921. Serial No. 152,896.

ARLINGTON

Particular description of goods.—Negligée Shirts
Claims use since the year 1901.

155,164. (CLASS 45. BEVERAGES, NONALCOHOLIC.) OLD SCOTCH CO., Augusta, Me. Filed Oct. 10, 1921. Serial No. 153,947.

OLD SCOTCH

Particular description of goods. -Ginger Ale.
Claims use since on or about Nov. 16, 1920.

155,165. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) ORIENTAL SILK PRINTING COMPANY, Haledon, N. J., and New York, N. Y. Filed Dec. 23, 1921. Serial No. 157,074.

HALEDON DYED

Particular description of goods.—Silk and Silk and Cotton Piece Goods and Cotton Goods in the Piece.
Claims use since October, 1919.

155,166. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THOMAS OWENS, Angola, Ind. Filed Mar. 31, 1921. Serial No. 145,526.

"PERFECTION"

Particular description of goods.—Dressed Poultry, Eggs, and Butter.
Claims use since 1901.

155,167. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PAGODA IMPORT COMPANY, INC., New York and Brooklyn, N. Y. Filed Apr. 7, 1921. Serial No. 145,853.

Parfait

Particular description of goods.—Hair Nets.
Claims use since Dec. 1, 1920.

155,168. (CLASS 39. CLOTHING.) PARAMOUNT KNITTING COMPANY, Chicago, Ill. Filed May 9, 1921. Serial No. 147,459.

COLORADO

Particular description of goods.—Hosiery.
Claims use since Feb. 5, 1920.

155,169. (CLASS 39. CLOTHING.) PARAMOUNT KNITTING COMPANY, Chicago, Ill. Filed May 9, 1921. Serial No. 147,460.

MONTANA

Particular description of goods.—Hosiery.
Claims use since Mar. 22, 1919.

155,170. (CLASS 39. CLOTHING.) PARAMOUNT KNITTING COMPANY, Chicago, Ill. Filed May 9, 1921. Serial No. 147,461.

SANDOW

Particular description of goods.—Hosiery.
Claims use since Apr. 24, 1897.

155,171. (CLASS 39. CLOTHING.) PARAMOUNT KNITTING COMPANY, Chicago, Ill. Filed May 9, 1921. Serial No. 147,462.

PANAMA

Particular description of goods.—Hosiery.
Claims use since June 5, 1910.

155,172. (CLASS 39. CLOTHING.) PARAMOUNT KNITTING COMPANY, Chicago, Ill. Filed May 9, 1921. Serial No. 147,463.

TUSCUMBIA

Particular description of goods.—Hosiery.
Claims use since Dec. 3, 1914.

155,173. (CLASS 39. CLOTHING.) PARAMOUNT KNITTING COMPANY, Chicago, Ill. Filed May 9, 1921. Serial No. 147,464.

DEARBORN

Particular description of goods.—Hosiery.
Claims use since Apr. 23, 1919.

155,174. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) S. I. PARKER, Howe, Ind. Filed June 25, 1921. Serial No. 149,649.

Particular description of goods.—Laundry Tablets.
Claims use since November, 1918.

155,175. (CLASS 37. PAPER AND STATIONERY.) POWERS PAPER COMPANY, Springfield, Mass. Filed Jan. 14, 1922. Serial No. 157,954.

HY GRADE

Particular description of goods.—Writing, Printing, and Typewriting Papers; Correspondence Envelopes, Papeteries, and Wedding Stationery, Box or Bulk.
Claims use since 1913.

155,176. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) RICHMOND SUNDRY COMPANY, INC., Richmond, Va. Filed June 21, 1921. Serial No. 149,485.

HOLD-PHAST

Particular description of goods.—Hair Nets.
Claims use since Mar. 1, 1921.

155,177. (CLASS 39. CLOTHING.) RUBBERIZED SHEETING & SPECIALTY CO. INC., New York, N. Y. Filed Oct. 5, 1920. Serial No. 137,966.

RUBRIZ
"KEPDRY"
HOUSEHOLD
AND
NURSERY
APRON

Particular description of goods.—Household and Nursery Aprons.
Claims use since February, 1920.

155,178. (CLASS 39. CLOTHING.) SEAMLESS BRASSIÈRE CO., INC., New York, N. Y. Filed June 24, 1921. Serial No. 149,604.

Best-Fit
BRASSIERE

Particular description of goods.—Brassières.
Claims use since Aug. 15, 1918.

155,179. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE SHAW-WALKER CO., Muskegon, Mich. Filed Sept. 8, 1921. Serial No. 152,728.

SHAW-WALKER

Particular description of goods.—Metal Filing Cabinets, Wood Filing Cabinets, Metal Storage Cabinets, Wood Storage Cabinets, Steel Fire-Resisting Filing Cabinets, Metal and Wood Card Cabinets, Metal Wardrobes, Steel Wardrobes, and Interior Sections for the Foregoing, Steel and Wood Office Desks and Card-Filing Desks, and Steel Shelving.
Claims use since Mar. 8, 1899.

155,180. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ST. LOUIS PUMP & EQUIPMENT COMPANY, St. Louis, Mo. Filed Dec. 30, 1920. Serial No. 141,693.

Particular description of goods.—Pumps for Oil and Other Fluids.
Claims use since Oct. 1, 1920.

155,181. (CLASS 39. CLOTHING.) SUPERIOR HAT COMPANY, St. Louis, Mo. Filed Aug. 29, 1921. Serial No. 152,351.

SUPERIOR

Particular description of goods.—Harvest Hats.
Claims use since Nov. 1, 1917.

155,182. (CLASS 39. CLOTHING.) U. S. GLOVE CO., Marion, Ind. Filed June 9, 1921. Serial No. 148,905.

TWIN SEAM

Particular description of goods.—Leather-Palm Work Gloves, a Combination of Leather and Cotton Flannel.
Claims use since Jan. 1, 1920.

155,183. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE UNITED STATES PLAYING CARD COMPANY, East Norwood, Cincinnati, Ohio. Filed July 29, 1921. Serial No. 151,107.

Particular description of goods.—Playing Cards.
Claims use since about 1909.

155,184. (CLASS 5. ADHESIVES.) THE COMMERCIAL PASTE COMPANY, Columbus, Ohio. Filed Feb. 10, 1921. Serial No. 143,382.

QUICK STICK

Particular description of goods.—Certain Named Boiler and Furnace Pastes.
Claims use since Jan. 1, 1912.

TRADE-MARK REGISTRATIONS CANCELED.

53,928. PEPPER SAUCE. E. MCILHENNY'S SON, Avery Island and New Iberia, La. Registered June 12, 1906 Canceled Mar. 14, 1922.

53,929. PEPPER SAUCE. E. MCILHENNY'S SON, Avery Island and New Iberia, La. Registered June 12, 1906. Canceled Mar. 14, 1922.

140,193. NEWSPRINT PAPER, CARDBOARD MADE OF SULFITE AND GROUND WOOD, AND WOOD BOARD. PRICE BROTHERS & COMPANY LIMITED, Quebec, Quebec, Canada. Registered Mar. 8, 1921. Canceled Apr. 15, 1922.

146,892. BLOWPIPES. TORCHWELD EQUIPMENT COMPANY, Chicago, Ill. Registered Sept. 20, 1921. Canceled Apr. 15, 1922.

147,061. DRY-CLEANING PREPARATION IN THE FORM OF STICK OR PENCIL FOR LEATHER AND FABRIC. U. S. SPECIALTY MFG. CO., Somerville, Mass. Registered Sept. 27, 1921. Canceled Apr. 3, 1922.

148,599. SILVER-PLATED FLAT AND HOLLOW WARE. SIMEON L. & GEORGE H. ROGERS COMPANY, Hartford, Conn. Registered Nov. 15, 1921. Canceled Mar. 21, 1922.

LABELS

REGISTERED MAY 16, 1922.

24,375.—*Title:* "DOODEWARD'S LIGHTNING WONDER GLOSS." (For Automobiles, Pianos, Furniture, Woodwork, and All Varnished, Painted, and Enameled Surfaces.) JOSEPH DOODEWARD, Covington, Ky. Filed August 26, 1921.

24,376.—*Title:* "YEAST O BEAUTY SOAP." (For a Toilet Soap.) WILLIAM TYLER GREEN, Summit, N. J. Filed August 23, 1921.

24,377.—*Title:* "WONDERFUL IMPROVEMENT FOR SERVICE AND CLEANING." (For Window Shades, Being Applied to the Shade Rollers Thereof.) THE PARIS MANUFACTURING COMPANY, Cleveland, Ohio. Filed July 18, 1921.

24,378.—*Title:* "ROUTLEDGE." (For Bird Remedies.) ROUTLEDGE BIRD, PET AND ANIMAL CO., Portland, Oreg. Filed March 23, 1922.

24,379.—*Title:* "ROUTLEDGE." (For Birdseed.) ROUTLEDGE BIRD, PET AND ANIMAL CO., Portland, Oreg. Filed March 23, 1922.

24,380.—*Title:* "ESKIMO PIE." (For Confections.) RUSSELL STOVER COMPANY, Chicago, Ill. Filed April 3, 1922.

24,381.—*Title:* "THE GOOD KIND." (For Canned Corn.) STEELE-WEDELES COMPANY, Chicago, Ill. Filed March 23, 1922.

24,382.—*Title:* "S AND W." (For Canned Peaches.) SUSSMAN, WORMSER & CO., San Francisco, Calif. Filed March 18, 1922.

24,383.—*Title:* "S AND W." (For Canned Corn.) SUSSMAN, WORMSER & CO., San Francisco, Calif. Filed March 18, 1922.

24,384.—*Title:* "S AND W." (For Canned Peas.) SUSSMAN, WORMSER & CO., San Francisco, Calif. Filed March 18, 1922.

24,385.—*Title:* "S AND W." (For Canned Asparagus.) SUSSMAN, WORMSER & CO., San Francisco, Calif. Filed March 18, 1922.

24,386.—*Title:* "S AND W." (For Canned Apricots.) SUSSMAN, WORMSER & CO., San Francisco, Calif. Filed March 18, 1922.

24,387.—*Title:* "S AND W." (For Canned Tomatoes.) SUSSMAN, WORMSER & CO., San Francisco, Calif. Filed March 18, 1922.

24,388.—*Title:* "S AND W." (For Fruit Salad.) SUSSMAN, WORMSER & CO., San Francisco, Calif. Filed March 18, 1922.

24,389.—*Title:* "S AND W." (For Canned Pineapple.) SUSSMAN, WORMSER & CO., San Francisco, Calif. Filed March 18, 1922.

24,390.—*Title:* "S AND W." (For Canned Cherries.) SUSSMAN, WORMSER & CO., San Francisco, Calif. Filed March 18, 1922.

24,391.—*Title:* "BLUE BONNET BRAND EAST TEXAS TOMATOES." (For Tomatoes.) TEXAS TOMATO GROWERS EXCHANGE, Tyler, Tex. Filed May 28, 1921.

24,392.—*Title:* "WHITING'S LINIMENT." (For Bottles Containing Liniment.) F. T. WHITING and J. A. MARTIN, Charleston, W. Va. Filed May 16, 1921.

PRINTS

REGISTERED MAY 16, 1922.

6,126.—*Title:* "GLADYS." (For Advertising Purposes For Glover's Mange Medicine.) H. CLAY GLOVER CO., New York, N. Y. Filed December 13, 1921.

6,127.—*Title:* "SHAVES BY MAIL?" (For Advertising Purposes for Razor Blades.) THE GREIST MFG. CO., New Haven, Conn. Filed March 17, 1922.

6,128.—*Title:* "HOW TO USE THIS SAMPLE OF LOTUS HAIR COLOR RESTORER." (For Advertising Purposes for the Lotus Preparation for the Hair.) THE LOTUS CO. INC., Newark, N. J. Filed March 30, 1922.

6,129.—*Title:* "YELLOW CAB MANUFACTURING CO." (For Advertising Purposes for Taxicabs.) YELLOW CAB MANUFACTURING CO., Chicago, Ill. Filed August 19, 1921.

6,130.—*Title:* "THIS IS THE VEHICLE THAT HAS STANDARDIZED THE TAXICAB INDUSTRY IN AMERICA." (For Advertising Purposes for Taxicabs.) YELLOW CAB MANUFACTURING CO., Chicago, Ill. Filed August 19, 1921.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

EX PARTE KUSTERER.

No. 1400. Decided February 6, 1922.

PATENTS—INVENTION—ASSEMBLING ELEMENTS FROM TWO OLD DEVICES TO OPERATE IN THE SAME MANNER IS NOT INVENTION.

The assembling of available parts of two prior devices to produce a device which operates in substantially the same manner as one of the prior devices *Held* not to be invention.

Mr. F. L. Chappell and *Mr. O. A. Earl* for Kusterer.

Mr. T. A. Hostetler for the Commissioner of Patents.

VAN ORSDEL, *J.:*

This appeal is from the decision of the Commissioner of Patents, refusing to allow claim 3 in appellant's application, which reads as follows:

3. A table slide structure comprising a center slide adapted to be secured to the bridge of the table, an outer slide member secured to one portion of the table top and an inner slide member secured to the opposite portion of the table top, said slides having co-engaging parts, a pulley with a vertical axle on the central slide, a cable looped over said pulley and connecting the inner slide member to the outer slide member, clearance way being formed in said slides for the cable, whereby the movements of the slides are equalized.

This claim was denied on reference to a British patent issued to one Pocock in 1805; a patent issued to one Curry, September 21, 1869, and a patent issued to one McMahon, June 25, 1912.

The invention relates to an extension table in which the extension slides, moving in opposite directions, are connected by cables in such manner as to equalize the movement of the slides.

The patent of Pocock discloses a rectangular frame so mounted that it slides between fixed rails, and a similar frame with one end open and mounted to slide on the outer sides of the fixed rails. Pulleys are mounted near the center of the fixed rails and the cords placed over the pulleys with one end attached to the inner frame and the other end to the outer frame, in such manner that the movement of one frame simultaneously moves the other. The patent to McMahon discloses two fixed rails carrying a table top with the rails tongued and grooved and a clearance space for the rack and pinion shifting mechanism. The patent to Curry discloses slides tongued and grooved with clearing spaces for the cords.

It, therefore, appears that the claim in issue shows a combination of elements, old in the art; in other words, it covers the construction of McMahon modified by the cord and pulley slide shifting mechanism shown in the Pocock patent. It is well settled that elements which are old in the art when assembled in such a manner as to produce a new result, may be held to constitute invention. We think, however, that the rule is not applicable in this case. Appellant's device, while showing a high degree of mechanical skill in the selection and putting together of available parts of the different devices above referred to, operates in substantially the same manner as did the old British patent.

In cases where the dividing line between patentability and the exercise of mechanical skill is difficult to define, we resolve the doubt in favor of invention, but the present case does not, in our opinion, belong to that class. While appellant produced a valuable improvement, we are unable to reach the conclusion that what he accomplished amounted to invention.

The decision of the Commissioner of Patents is affirmed.

In the absence of Mr. Chief Justice Smyth, Mr. Justice Hoehling, of the Supreme Court of the District of Columbia, participated in the hearing and disposition of this case.

ADJUDICATED PATENTS.

(U. S. C. C. A. Ill.) The Brewer patent, No. 780,086, for vending device, *Held* void for lack of lawful utility and invention. *Brewer* v. *Lichtenstein*, 278 Fed. Rep., 512.

(U. S. C. C. A. N. Y.) The Janin patent, No. 1,312,910, for hydroaeroplane, claim 8 awarded to Glenn H. Curtiss. *Curtiss Aeroplane & Motor Corporation* v. *Janin*, 278 Fed. Rep., 454.

(U. S. C. C. A. Mich.) The Johnson patent, No. 814,786, for talking machine, claim 42, *Held* not infringed. *Cheney Talking Mach. Co.* v. *Victor Talking Mach. Co.*, 278 Fed. Rep., 445.

(U. S. C. C. A. Mich.) The Johnson patent, No. 814,848, for talking-machine horn, claims 7 and 11 *Held* not infringed. *Cheney Talking Mach Co.* v. *Victor Talking Mach. Co.*, 278 Fed. Rep., 445.

(U. S. D. C. N. Y.) The Palmer patent, No. 578,995, for fabric-turning machine, *Held* valid and infringed. *Palmer* v. *E. Z. Waist Co.*, 278 Fed. Rep., 530.

(U. S. C. C. A. N. J.) The Pearse patent, No. 873,680, for railroad-track-spraying apparatus claims 5, 8 *Held* anticipated. *Chipman Chemical Engineering Co.* v. *Reade Mfg. Co.*, 278 Fed. Rep., 520.

(U. S. C. C. A. N. Y.) The Vreeland patents, Nos. 1,239,852 and 1,245,166, relating to the art of radiotelegraphy, *Held* not void, as interfering with prior Fessenden patents. *International Signal Co.* v. *Vreeland Apparatus Co.*, 278 Fed. Rep., 468.

PATENT SUITS.

[Notices under section 4921, Revised Statutes, as amended February 18, 1922.]

787,814, J. D. Wolf, Separation of metals from their ores, suit filed April 13, 1922, U. S. D. C., Ariz., Doc. E–107, *Wolf Mineral Process Corp.* v. *Cullihan Zinc Lead Co.;* same, Doc. E–108, *same* v. *Butte & Superior Mining Co.;* same, Doc. E–109, *same* v. *Walker Mining Co.;* same, Doc. E–110, *same* v. *Arizona Copper Co.;* same, Doc. E–111, *same* v. *East Butte Copper Mining Co.*

837,017, C. Auer von Welsbach, Pyrophoric alloy, suit filed April 19, 1922, U. S. D. C., Pa., Doc. 2511, *Alexander Harris & New Process Metals Co.* v. *G. Zorn, Jr.*

871,735, J. Rashkin, Doors for elevator shafts, suit filed February 20, 1922, U. S. D. C., Mass., Doc. 1694 E., *The Peelle Co.* v. *Morrison & Skinner Co.*

878,995, W. B. Palmer, Apparatus for inverting tubular fabric, suit filed December 10, 1920, U. S. D. C., N. D. N. Y., Doc. 287, *W. B. Palmer & J. V. Palmer* v. *The E. Z. Waist Co.* Decree filed March 21, 1922, holding first claim of patent in suit valid.

955,173, W. Klocke, Drawing presses, suit filed April 25, 1922, U. S. D. C., N. D. Ohio (W. Div.), Doc. 319, *E. W. Bliss Co.* v. *The Toledo Mach. & Tool Co.*

958,578, F. W. Ballard, Hydroelectric power plants, suit filed November 26, 1921, U. S. D. C., N. D. N. Y., Doc. 321, *The Davey Tree Expert Co.* v. *C. A. Jackson.* Decree filed March 7, 1922, enjoining defendant from further use of patented improvements mentioned in patent in suit.

1,029,321, J. Schaffer, Sheet-metal boxes, suit filed April 11, 1922, U. S. D. C., E. D. N. Y., Doc. 1047, *J. Schaffer & The Schaffer Tinware Mfg. Co.* v. *M. Kamenstein.*

1,100,991 and 1,372,089, A. D. Rostow, Device for shaping noses, suit filed February 22, 1922, U. S. D. C., N. D. N. Y., Doc. 343, *The Anita Co.* v. *M. Trilley & J. Hilgers.*

1,112,437, G. Cody, Antisiphon self-scouring trap, suit filed April 21, 1922, U. S. D. C., E. D. N. Y., Doc. 1050, *W. E. Warland* v. *E. T. Cody, administratrix G. F. Cody.*

1,192,336, S. Mueller, Machines for folding noodles; 1,217,891, same, Method of folding noodles; 42,608 (design), same, Design for noodles or macaroni, suit filed April 29, 1922, U. S. D. C., E. D. N. Y., Doc. 1057, *S. Mueller* v. *A. Zeregas Sons.*

1,204,012, M. Guett, Snap switches, suit filed April 20, 1922, U. S. D. C., Pa., Doc. 2513, *The Hart & Hegeman Co.* v. *Ideal Electric Mfg. Co.*

1,231,542, J. P. Weis, Strip-feeding method for sewing machines; 1,277,004, same, Strip-feeding means for sewing machines; 1,277,005, same, Sewing machines; 1,277,007, same, Wearing apparel, suit filed April 14, 1922, U. S. D. C., E. D. N. Y., Doc. 1049, *Metropolitan Sewing Machine Corp.* v. *Dave Sonsky.*

1,238,525, A. E. Kinsley, Game traps, suit filed July 29, 1919, U. S. D. C., N. D. N. Y., Doc. 267, *Triumph Trap Co., Inc.* v. *Oneida Community, Lim.* Opinion district judge filed February 28, 1922, holding second claim of patent valid; decree filed April 6, 1922, accordingly, and dismissing suit as to claims 1, 3, 4, and 5.

1,296,588, J. H. Bamberg, Metal molds; 1,296,589, same, Castings and process of making same; 1,296,590, same, Metal molds; 1,296,591, same, Piston casting; 1,296,594, A. B. Norton, Molds; 1,296,595, same, Process of making castings; 1,396,596, F. A. Parkhurst, Metal molds; 1,296,597, same, Mold and process of casting; 1,308,103, same, Mold and method of casting; suit filed May 1, 1922, U. S. D. C., S. D. Ohio (W. Div.), Doc. 256, *Aluminum Manufactures, Inc.* v. *The Kant-Skore Piston Co.*

1,316,240, J. M. Hothersall, Lunch boxes, suit filed April 10, 1922, U. S. D. C., E. D. N. Y., Doc. 1046, *American Can Co., Corp.* v. *Golder Mfg. Co., Corp.*

1,316,540, A. C. Fuller, Telegraphy and apparatus therefor, suit filed April 26, 1922, U. S. Ct. Claims, D. C., Doc. B–81, *A. C. Fuller* v. *The United States.*

1,368,115, F. R. Chester, Amusement apparatus, suit filed April 25, 1922, U. S. D. C., E. D. N. Y., Doc. 1052, *Chester-Pollard Amusement Co. Inc.* v. *L. Gordon;* same, Doc. 1053, *same* v. *J. Nichols;* same, suit filed Apr. 26, 1922, Doc. 1054, *same* v. *W. & I. Reichenthaler.*

1,396,687 and 1,396,688, E. A. Laughlin, Vehicle body bearings, suit filed May 2, 1922, U. S. D. C., N. D. Ohio (E. Div.), Doc. 724, *E. A. Laughlin & J. R. H. Potts* v. *The Pittsburgh & Lake Erie R. R. Co. Corp.*

1,406,077, A. F. Poole, Single-magazine pencils, suit filed April 19, 1922, U. S. D. C., S. D. Ill. (S. Div.), Doc. 216, *The Wahl Co.* v. *E. M. & G. R. Shanklin.*

49,803 (design), J. A. Johnson, Design for vehicle tops, suit filed April 24, 1922, U. S. D. C., E. D. N. Y., Doc. 1051, *H. Perlmutter & S. Langweil* v. *Auto Baby Carriage Co.*

Amendment to the Rules of Practice.

(ORDER NO. 2,743.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 3, 1922.

Acting under the provisions of section 483 of the Revised Statutes and with the approval of the Secretary of the Interior, the following rules of the Rules of Practice of the United States Patent Office have been amended as follows:

Rule 17, paragraph (*a*):

(*a*) Any attorney at law who is in good standing in any court of record in the United States or any of the States or Territories thereof and who shall furnish a certificate of the clerk of such United States, State, or Territorial court, duly authenticated under the seal of the court, that he is an attorney in good standing, *and who shall file proof that he is possessed of the legal and technical qualifications enumerated in paragraph (b.)*

Rule 22, paragraphs (*c*) and (*d*):

(*c*) *The Commissioner of Patents may, after notice and opportunity for a hearing, suspend or exclude, either generally or in any particular case, from further practice*

before his office any person, agent, or attorney shown to be incompetent or disreputable, or guilty of gross misconduct, or who refuses to comply with the rules and regulations, or who shall, with intent to defraud in any manner, deceive, mislead, or threaten any applicant or prospective applicant, or other person having immediate or prospective business before the office, by word, circular, letter, or by advertising, or who shall guarantee the successful prosecution of any application for patent or the procurement of any patent, or by word, circular, letter, or advertisement shall make any false promise or misleading representation, or who uses the name of any member of either House of Congress or of any officer of the Government in advertising his business. (Act approved April 27, 1916.) The reasons for any such suspension or exclusion shall be duly recorded. And the action of the Commissioner may be reviewed upon the petition of the person so refused recognition or so suspended or excluded by the Supreme Court of the District of Columbia under such conditions and upon such proceedings as the said court may by its rules determine.

Rule 30, line 5, by changing $15 to *$20.*

Rule 185:

185. An assignment, grant, or conveyance of a patent will be void as against any subsequent purchaser or mortgagee for a valuable consideration without notice unless recorded in the Patent Office within three months from the date thereof *or prior to such subsequent purchase or mortgage.*

If any assignment, grant, or conveyance of any patent shall be acknowledged before any notary public of the several States or Territories or the District of Columbia, or any commissioner of *any court of the United States for any District or Territory,* or before any secretary of legation or consular officer authorized to administer oaths or perform notarial acts under section 1750 of the Revised Statutes, the certificate of such acknowledgment, under the hand and official seal of such notary or other officer, shall be prima facie evidence of the execution of such assignment, *grant* or conveyance.

Rule 188:

188. In every case where it is desired that the patent issue to an assignee, the assignment must be recorded in the Patent Office at a date not later than the day on which the final fee is paid. *In the case of an application for a design patent the assignment must be recorded before the case is allowed.* (See Rule 26.) The date of the record is the date of the receipt of the assignment at the office *in proper form and accompanied by the full legal fee for recording.*

Rule 191, page 57:

191. The following is the schedule of fees and of prices of publications of the Patent Office:

On filing each original application for a patent, except in design cases	*$20.00*
On filing each renewal application for a patent except in design cases	*20.00*
On issuing each original patent, except in design cases	20.00
In design cases:	
For 3 years and 6 months	10.00
For 7 years	15.00
For 14 years	30.00
On every application for the reissue of a patent	30.00
On filing each disclaimer	10.00
On an appeal for the first time from the primary examiner to the examiners in chief	10.00
On every appeal from the examiners in chief to the Commissioner	20.00
For certified copies of patents if in print:	
For specification and drawing, per copy	.10
For the certificate	.25
For the grant	.50
For certifying to a duplicate of a model	.50
For manuscript copies of records, for every 100 words or fraction thereof	.10
If certified, for the certificate additional	.25
For photostat copies of records,	
Size 10 by 15 inches, per copy	*.25*
Size 8 by 12½ inches, per copy	*.15*
If certified, for the certificate additional	*.25*
For uncertified copies of the specifications and accompanying drawings of patents, if in print, each	.10
For the drawings, if in print	.10
For copies of drawings not in print, the reasonable cost of making them.	
For photo prints of drawings, for each sheet of drawings:	
Size 10 by 15 inches, per copy	.25
Size 8 by 12½ inches, per copy	.15
For 20-coupon orders, each coupon good for one copy of a printed specification and drawing, and receivable in payment for photographic prints	2.00
For 100 coupons in stub book	10.00
For recording every assignment, agreement, power of attorney, or other paper, of 300 words or under	1.00
Of over 300 and under 1,000 words	2.00
For each additional 1,000 words or fraction thereof	1.00
For each additional patent or application included or involved in one writing, where more than one is so included or involved, additional	*.25*
For abstracts of title to each patent or invention:	
For the search, one hour or less, and certificate	*2.00*
Each additional hour or fraction thereof	*1.00*
For each brief from the digest of assignments, of 200 words or less	.20
Each additional 100 words or fraction thereof	.10
For searching titles or records, one hour or less	*1.00*
Each additional hour or fraction thereof	*1.00*
For assistance to attorneys in the examination of publications in the Scientific Library, one hour or less	*1.50*
Each additional hour or fraction thereof	*1.50*
For copies of matter in any foreign language, for every 100 words or a fraction thereof	.10
For translation, for every 100 words or fraction thereof	*.60*

Rule 191, pages 58 and 59 remain unchanged.

THOMAS E. ROBERTSON,
Commissioner.

Changes in Classification.

(ORDER No. 2,733.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., March 31, 1922.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In class 8, Bleaching and Dyeing, (Division VI,) abolish subclass—

1. **Carbon dyes.**

The patents formerly contained in this subclass have been placed for the most part in class 260, Chemistry—Carbon Compounds, hereinafter established.

In class 23, Chemicals, (Division VI,) abolish subclasses—

24. **Carbon compounds.**
27. **Vinegar.**

The patents formerly contained in subclass 24 have been placed for the most part in class 260, Chemistry—Carbon Compounds, hereinafter established, and those formerly contained in subclass 27 have been placed for the most part in class 99, Preserving, subclass 17, Food compounds, Vinegar, hereinafter established.

In class 99, Preserving, (Division II,) establish subclass—

Food compounds—
17. Vinegar.

The patents contained in this subclass have been taken for the most part from class 23, Chemicals, subclass 27, Vinegar, hereinbefore abolished.

In class 134, Liquid Coating Compositions, (Division VI,) establish the following subclass and definition, the patents contained in this subclass having been taken for the most part from class 8, Bleaching and Dyeing, subclass 1, Carbon dyes, hereinbefore abolished:

Paint.
Pigments—
58.5. Lake-containing.

58.5. PAINT, PIGMENTS, LAKE-CONTAINING. Pigments which consist of or contain carbon-compound dyes absorbed in or adsorbed on particles of inorganic salts, inorganic hydroxides, or other inorganic compounds (e. g., aluminum hydroxide, barium sulfate).

Note.—Compositions which contain only definite chemical compounds of dye radicals with metals are excluded. Search class 260, CHEMISTRY—CARBON COMPOUNDS, subclasses 11, Metallo compounds, 12, Metallo compounds, Copper or chromium, and 13, Metallo compounds, Mercury, for such compounds, excepting compounds of the alkali metals and of the alkaline-earth metals, for which search under the corresponding dyes in class 260.

In class 134, Liquid Coating Compositions, (Division VI,) add to the definitions of subclasses 59, Paint, Pigments, Iron Salts; 67, Paint, Pigments, Lead Salts, and 78, Paint, Pigments, Zinc Salts, the following note:

Search this class, subclass 58.5, for lakes containing zinc, lead, or iron salts.

Establish, in Division VI, class 260, Chemistry—Carbon Compounds, with the following subclasses and definitions, the patents contained in this class having been taken for the most part from classes 8, Bleaching and Dyeing, subclass 1, Carbon dyes, and 23, Chemicals, subclass 24, Carbon compounds, hereinbefore abolished:

260.—CHEMISTRY — CARBON COMPOUNDS.
1. **Miscellaneous.**
2. **Condensation (unknown constitution)—**
3. Methylene—
4. Phenol—
5. Anhydrous,
6. Rubber,
7. Coumarone and indene.
8. Organic-acid-polyhydric alcohol.
9. **Protein derivatives.**
10. **Carbohydrate derivatives.**
11. **Metallo compounds—**
12. Copper or chromium,
13. Mercury,
14. Arsenic—
15. Arseno.
16. **Ozonides or peroxides.**
17. **Sulphurized products—**
18. With heavy metals and their compounds,
19. From indophenols and indamines,
20. Phenols—
21. Nitro,
22. Amido,
23. Amines—
24. Mixed amines.
25. **Alkaloids (except purines)—**
26. Cinchona.
27. **Azines—**
28. Oxazines,
29. Diazines—
30. Piperazine,
31. Indanthrene,
32. Pyrimidine—
33. Barbituric acid,
34. Purines—
35. Removing chlorine.
36. **Acridine—**
37. Acridones.
38. **Quinoline—**
39. Carboxylic acids,
40. Condensed quinoline,
41. Salts.
42. **Pyridine—**
43. Piperidine.
44. **Azoles—**
45. Pyrazoles.
46. **Pyrrols (including carbazoles)—**
47. Indoles—
48. Indogoid—
49. Halogen,
50. Indigo—
51. From arylglycines,
52. Halogen.
53. **Oxygen and sulphur rings—**
54. Oxygen rings only.
55. **Indophenols and indamines.**
56. **Quinones—**
57. Anthraquinone—
58. Phenols—
59. Amines,
60. Amines,

260.—CHEMISTRY—CARBON COMPOUNDS—Continued.
Quinones—
Anthraquinone—
61. Polynuclear derivatives.
62. **Pyronines—**
63. Rhodamines.
64. **Polyarylmethyl—**
65. Triarylmethyl—
66. Trioxytriaryl,
67. Triaminotriaryl,
68. Diaminotriaryl.
69. **Diazo, azoxy, nitroso, azo, hydrazo—**
70. Polyazo—
71. Diaminodiphenyl,
72. Trisazo—
73. Diaminodiphenyl—
74. Benzidine—
75. Carboxylic,
76. Disazo—
77. Diaminodiphenyl—
78. Benzidine—
79. Dinaphthyl—
80. Unsymmetrical,
81. Secondary—
82. Naphthyl-naphthyl-naphthyl,
83. Phenyl-naphthyl-naphthyl,
84. Phenyl-phenyl-naphthyl,
85. Urea type,
86. Monazo—
87. Pyrazolone,
88. Naphthyl-naphthyl—
89. β-naphthol,
90. Naphthyl-phenyl—
91. Naphthol—
92. Amino—
93. β-naphthol,
94. Sulphonic,
95. Carboxylic,
96. Phenyl-phenyl—
97. Phenol.
98. **Esters—**
99. Terpene,
100. Carbohydrate—
101. Carboxylic acid—
102. Subsequent treatment,
103. Aromatic carboxylic acid—
104. Phenol,
105. Nucleo amino,
106. Aliphatic carboxylic acid—
107. Phenol.
108. **Carboxylic acids—**
109. Aromatic amino,
110. Phenol—
111. Salicyl,
112. Aliphatic—
113. Halogen,
114. Formates from CO,
115. Oxalic from formates,
116. From hydrocarbons, alcohols, and aldehydes,

260. CHEMISTRY—CARBON COMPOUNDS—Continued.
Carboxylic acids—
Aliphatic—
117. From unsaturated compounds,
118. From salts,
119. Destructive decomposition,
120. Fermentation,
121. Tartaric,
122. Purification,
123. Anhydrides and chlorides,
124. Amides—
125. Ureas,
126. Saccharin.
127. **Amines—**
128. Aromatic—
129. Sulphonic acids,
130. Condensation with aldehydes and ketones.
131. **Ketones—**
132. Terpene—
133. Camphor,
134. Aliphatic—
135. Fermentation.
136. **Aldehydes—**
137. Phenol aldehydes (vanillin),
138. Aliphatic—
139. From acetylene,
140. Polymerization,
141. Addition and condensation products.
142. **Nitro compounds—**
143. Phenol,
144. Aliphatic—
145. Carbohydrates—
146. Preliminary treatment,
147. Fortifying acids,
148. Purification and drying.
149. **Ethers—**
150. Phenol,
151. Aliphatic—
152. Carbohydrates.
153. **Hydroxy derivatives—**
154. Phenol—
155. Sulphonic acids,
156. Aliphatic—
157. Hydrins.
158. **Sulphoxy compounds—**
159. Sulphonic acids.
160. **Halogen derivatives—**
161. Nucleo aromatic,
162. Aliphatic—
163. Carbon tetrachloride (from CS_2),
164. Chloroform (by oxidation),
165. By reduction,
166. From gases only.
167. **Hydrocarbons—**
168. Aromatic,
169. Aliphatic—
170. Unsaturated—
171. Diolefines.
172. **Processes.**
173. **Apparatus.**

THOMAS E. ROBERTSON, *Commissioner.*

Changes in Classification.

(ORDER NO. 2,736.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 6, 1922.

It is hereby directed that class 167, Medicines, be transferred from Division II to Division VI, to take effect immediately.

WM. A. KINNAN,
First Assistant Commissioner.

Changes in Classification.

(ORDER NO. 2,740.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 25, 1922.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In class 183, Gas Separation, (Division XXV,) establish the following subclasses and definitions:

2.5. **Deaerating liquids—**
2.6. Foam breakers.

2.5. DEAERATING LIQUIDS. Processes and apparatus for removing air or other gases from a fluid not essentially gaseous in form, such as water containing absorbed air, foam, or the like.

2.6. DEAERATING LIQUIDS, FOAM BREAKERS. Processes and apparatus for breaking foam to release the gas contained in the bubbles.

The patents contained in these subclasses have been taken for the most part from class 183, Gas Separation, subclass 3, With liquid separation.

THOMAS E. ROBERTSON,
Commissioner.

Date of Patent.

RULE 167. * * * The issue closes weekly on Thursday, and the patents of that issue bear date as of the *fourth* Tuesday thereafter.

THE

OFFICIAL GAZETTE

OF THE

United States Patent Office.

Vol. 298—No. 4. TUESDAY, MAY 23, 1922. Price—$5 per year.

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Printed copies of patents are furnished by the Patent Office at 10 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

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Issue of May 23, 1922.

Patents	812—	No. 1,416,668 to No. 1,417,479,	inclusive.
Designs	37—	No. 60,972 to No. 61,008,	inclusive.
Trade-Marks	178—	No. 155,185 to No. 155,362,	inclusive.
Reissues	6—	No. 15,359 to No. 15,364,	inclusive.
Total	1033		

Interference Notice.

Department of the Interior,
United States Patent Office.
Washington, D. C., May 10, 1922.

Christian E. Gudebrod, his heirs, assigns, or legal representatives, take notice:

An interference having been declared by this Office between the application of Smith & Dove Mfg. Co., Andover, Mass., for registration of a trade-mark and trade-mark registered February 19, 1895, No. 26,104, to Christian E. Gudebrod, 644 Broadway, New York, N. Y., and a notice of such declaration sent by registered mail to Christian E. Gudebrod at the said address having been returned by the post office undeliverable, notice is hereby given that unless said Gudebrod, his heirs, assigns, or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the Official Gazette for three consecutive weeks.

THOMAS E. ROBERTSON,
Commissioner.

Notice of Opposition.

Department of the Interior,
United States Patent Office.
Washington, D. C., May 10, 1922.

Estasi Perfumery Co., Inc., its heirs, assigns, or legal representatives, take notice:

On December 15, 1921, upon the petition of the A. P. Babcock Company, of 501 Fifth Avenue, New York, N. Y., an opposition proceeding against the registration of a trade-mark to Estasi Perfumery Co., Inc., of 235 Fifth Avenue, New York, N. Y., was instituted by this Office. The attorney of record for Estasi Perfumery Co., Inc., has since withdrawn from the case, and a notice of such opposition sent to Estasi Perfumery Co., Inc., at the said address having been returned by the post office undeliverable, notice is hereby given that unless said Estasi Perfumery Co., Inc., its heirs, assigns, or legal representative, shall enter an appearance therein within thirty days from the first publication of this order, the opposition will be proceeded with as in case of default.

This notice will be published in the Official Gazette for three consecutive weeks.

THOMAS E. ROBERTSON,
Commissioner.

Adverse Decisions in Interference.

Patent No. 1,397,304.

On March 22, 1922, a decision was rendered that D'Orsay McCall White was not the first inventor of the subject-matter covered by claims 1, 2, and 3 of his Patent No. 1,397,304, subject, "Detachable transmission construction," and no appeal having been taken within the time allowed such decision has become final.

Patent No. 1,257,988.

On April 22, 1922, a decision was rendered that Arthur J. Evers was not the first inventor of the subject-matter covered by claim 12 of his Patent No. 1,257,988, subject, "Pasteboard-box-making machines," and no appeal having been taken within the time allowed such decision has become final.

Design Patent No. 59,196.

On April 21, 1922, a decision was rendered that Victor H. Cohn was not the first inventor of the subject-matter covered by the claim of his Patent No. 59,196, subject, "Design for a ring," and no appeal having been taken within the time allowed such decision has become final.

Changes in Classification.

(Order No. 2,744.)

Department of the Interior,
United States Patent Office,
Washington, D. C., May 16, 1922.

It is hereby directed that subclass 41, Condensers, in class 250, Radiant Energy, be transferred from Division XVI to Division XLVIII, to take effect immediately.

WM. A. KINNAN,
Acting Commissioner.

PATENT DRAWING CO.
NEW YORK

Amendments.

Rule 73. In every amendment the exact word or words to be stricken out or inserted in the application must be specified and the precise point indicated where the erasure or insertion is to be made. All such amendments must be on sheets of paper separate from the papers previously filed, and written on but one side of the paper. Erasures, additions, insertions, or mutilations of the papers and records must not be made by the applicant.

Amendments and papers requiring the signature of the applicant must, also, in case of assignment of an undivided part of the invention, be signed by the assignee. (Rules 6, 107.)

Condition of Applications Under Examination at Close of Business May 13, 1922.

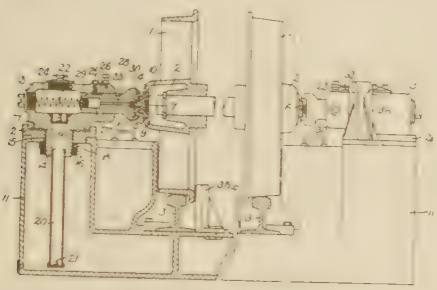
(Total number of applications waiting action, excluding Trade-Mark division, 66,191; Trade-Mark division, 8,740. Oldest new case, Mar. 3; oldest amended, Mar. 26, 1921. The dates given are 1921 except where * indicates 1922.)

Room No.	Divisions, Examiners, and subjects of inventions.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended.	
314	1. LOEFFLER, F. A., Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Planting; Scattering Unloaders.	Nov. 7	Nov. 17	895
1-8	2. BALDWIN, M., Bee Culture; Dairy; Medicines; Pneumatics; Preserving; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco; Trees, Plants, and Flowers.	June 8	July 5	1,837
175	3. RICH, WM. J., Electric Heating and Rheostats; Electrochemistry; Heating; Metal Founding; Metallurgical Apparatus; Metallurgy; Metal Treatment; Plastic Metal Working.	Sept. 12	May 19	903
234	4. MERRITT, A. D., Conveyers; Conveyers, Fluid Current; Conveyers, Power Driven; Excavating; Handling—Hand and Hoist-Line Implements; Hoisting; Material or Article Handling; Pushing and Pulling Implements; Railway Mail Delivery; Traversing Hoists.	July 23	*Feb 8	1,496
167	5. MACNAB, J. F., Bookmaking; Books, Strips, and Leaves; Harvesters; Jewelry; Manifolding; Music; Printed Matter; Tying Cords or Strands.	July 16	July 18	1,080
318	6. LEWERS, A. M., Bleaching and Dyeing; Chemicals; Explosive, Pyrotechnic, and Match Compositions; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Substance Preparation.	Aug. 15	*Jan. 6	1,240
312	7. JARBOE, C. G., Games and Toys; Optics; Photography; Velocipedes	Aug. 9	Nov. 3	2,325
133	8. CLIFT, J. W., Beds; Chairs and Seats; Flexible-Sheet-Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	*Feb. 24	*Apr. 4	758
221	9. TRYON, F. M., Air and Gas Pumps; Hydraulic Motors; Injectors and Ejectors; Motors, Fluid; Motors, Fluid Current; Pumps.	May 9	*Feb. 13	1,043
235	10. MITCHELL, T. H., Land Vehicles; Land Vehicles, Animal Draft Appliances; Land Vehicles—Bodies and Tops; Land Vehicles—Dumping; Land Vehicles, Wheel Substitutes; Motor Vehicles.	Oct. 20	*Mar. 1	1,090
154	11. ARMSTRONG, H. C., Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	*Jan. 3	*Jan. 27	608
322	12. PIERCE, P. P., Machine Elements	Oct. 30	Jan. 12	1,169
329	13. NIXON, G. A., Bolt, Nail, Nut, Rivet, and Screw Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Turning.	Apr. 30	*Jan. 4	1,918
323	14. BRUMBAUGH, N. J., Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire Working.	Aug. 1	*Feb. 27	899
308	15. REDROW, W. L., Bread, Pastry, and Confection Making; Glass; Laminated Fabrics and Analogous Manufactures; Paper Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	June 3	July 19	1,980
112	16. BACKUS, C. D., Radiant Energy; Telegraphy; Telephony	May 14	May 17	2,178
307	17. RAFTER, G. S., Coating, Label Pasting, and Paper Hanging; Nut and Bolt Locks; Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet-Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	Aug. 5	Nov. 26	1,331
229	18. PORTER, M. E., Liquid Heaters and Vaporizers; Motors, Expansible-Chamber Type; Power Plants; Speed-Responsive Devices; Steam and Vacuum Pumps.	Mar. 3	May 5	2,301
236	19. GLASCOCK, E. S., Automatic Temperature and Humidity Regulation; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels; Rheostats and Humidostats.	May 18	Sept. 3	1,232
179	20. WRIGHT, H., Artificial Body Members; Miscellaneous Hardware; Closure Fasteners; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Nov. 10	Nov. 21	1,756
212	21. THURBER, W. L., Continuous-Strip Feeding; Textiles; Textiles, Braiding, Netting, or Lace Making; Textiles, Cloth Finishing; Textiles, Fiber Preparation; Textiles, Knitting; Textiles, Spinning; Textiles, Twisting or Twining; Textiles, Weaving; Winding and Reeling.	Apr. 21	Sept. 19	932
249	22. COLWELL, J. H., Aeronautics; Firearms; Ordnance; Ammunition and Explosive Devices; Ammunition and Explosive-Charge Making.	Sept. 22	*Jan. 7	569
217	23. GROESBECK, W. D., Acoustics; Coin Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	Apr. 11	Oct. 4	799
144	24. DURAS, C. O., Apparel; Apparel Apparatus; Garment Supporters; Sewing Machines	July 21	Dec. 15	1,199
315	25. LIGHTFOOT, J. H., Agitating; Butchering; Centrifugal-Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	*Feb. 25	Mar. 6	430
105	26. HODGES, J. S., Electricity, Generation; Motive Power; Prime-Mover Dynamo Plants	Aug. 20	Nov. 3	993
214	27. ANDERSON, L. S., Abrading; Brush, Broom, and Mop Making; Brushing, Scrubbing, and General Cleaning; Laundry; Washing Apparatus.	Aug. 11	Sept. 12	1,899
225	28. BENSON, A. R., Internal-Combustion Engines	Aug. 26	Aug. 9	1,751
147	29. MORRIS, B. N., Boring and Drilling; Button Making; Chucks or Sockets; Coopering; Tool-Handle Fastenings; Wheelwright Machines; Wood Sawing; Wood Turning; Woodworking; Woodworking Tools.	July 25	*Mar. 11	637
152	30. SULLIVAN, M. R., Illuminating Burners; Illumination; Liquid and Gaseous Fuel Burners; Typewriting Machines.	Nov. 5	*Feb. 27	1,446
172	31. HOLMES, W. N., Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Fuel and Igniting Devices; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	May 15	July 25	2,123
278	32. BANCROFT, J. F., Gas and Liquid Contact Apparatus; Heat Exchange	July 1	*Jan. 16	1,073
70	33. COWLES, W. A., Bridges; Hydraulic and Earth Engineering; Masonry and Concrete Structures; Metallic Building Structures; Roads and Pavements; Roofs.	Oct. 6	Nov. 28	949
304	34. SIMPSON, G. R., Electricity-Transmission to Vehicles; Pneumatic Dispatch; Railways; Railway Rolling Stock; Railway Switches and Signals; Railways, Surface Track; Railway Wheels and Axles; Store Service; Track Sanders; Vehicle Fenders.	*Feb. 3	Mar. 1	437
52	35. REYNOLDS, E. C., Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals and Indicators; Toilet.	Dec. 2	*Feb. 14	922
204	36. MORTON, G. L., Automatic Weighers; Driers; Geometrical Instruments; Measuring Instruments; Force Measuring.	Dec. 8	Nov. 9	1,797
107	37. TAYLOR, E. C., Electricity, Circuit Makers and Breakers	June 25	June 14	1,973
378	38. IDE, G. R., Animal Husbandry; Earth Boring; Fishing, Trapping, and Vermin Destroying; Mining, Quarrying, and Ice Harvesting; Stationery; Stoneworking; Wells.	Oct. 10	Oct. 15	1,637
220	39. COWLES, A. W., Fluid-Pressure Regulators; Joint Packings; Multiple Valves; Packed Shaft or Rod Joints; Pipe Joints or Couplings; Rod Joints or Couplings; Valved Pipe Joints or Couplings; Valves; Water Distribution.	Apr. 5	May 11	2,253
273	40. OBERLIN, J. J., Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Receptacles; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	May 18	July 21	2,970
125	41. BROWN, J. T., Land Vehicles, Wheels and Axles; Resilient Tires and Wheels	Dec. 7	Nov. 30	712
114	42. CUTTING, H. O., Electrical Conduits and Housings; Electric Signaling; Electric Lamps	June 21	June 1	1,918
382	43. HOPKINS, F. M., Baths and Closets; Dispensing; Dispensing Beverages; Electricity, Medical and Surgical; Fire Extinguishers; Sewerage; Surgery; Liquid Separation or Purification.	June 22	Aug. 10	1,860
253	44. SHAFFER, C. H., Air Guns, Catapults, and Targets; Boats and Buoys; Filling and Closing Portable Receptacles; Marine Propulsion; Railway Draft Appliances; Refrigeration; Ships.	Aug. 29	*Mar. 24	503
379	45. GILES, A. H., Journal Boxes, Pulleys, and Shafting; Lubrication; Motors; Spring Devices	Aug. 22	*Feb. 2	1,238
332	46. WOLCOTT, C. L., Curtains, Shades, and Screens; Educational Appliances; Fire Escapes; Ladders; Fluid Sprinkling, Spraying, and Diffusing; Paper Files and Binders; Wooden Buildings; Scaffolds.	Sept. 19	Nov. 3	1,333
264	47. BARKER, H., Brakes; Clutches and Power Stop Control; Elevators; Fluid-Pressure Brake and Analogous Systems.	July 2	Oct. 20	1,366
118	48. ROEPKE, O. B., Electricity Conductors; Electricity, General Applications	Mar. 5	Mar. 26	2,553
163	TRADE-MARKS, DESIGNS, LABELS AND PRINTS: T. L. MEAD, JR.			
	Trade-Marks	Sept. 12	Jan. 30	5,788
	Designs	Sept. 20	Dec. 3	2,715
	Labels and Prints	Apr. 22	May 1	237

PATENTS

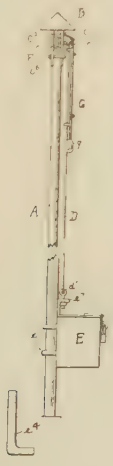
GRANTED MAY 23, 1922.

1,416,668. MEANS FOR MECHANICALLY OILING THE WHEELS OF TRAMWAY AND LIKE VEHICLES. Tom Abbott, Pontyclun, Llantrisant, Wales. Filed Oct. 2, 1920. Serial No. 414,331. 2 Claims. (Cl. 184—2.)



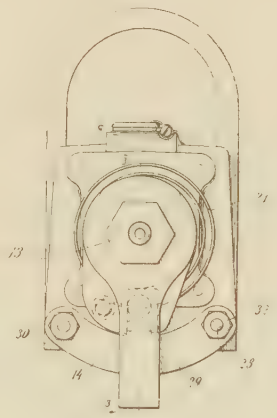
2. Means for mechanically oiling the wheels of tramway and like vehicles consisting of fixed oil wells located on at each side of a track for the vehicles, plates closing the upper ends of said oil wells, pump cylinders mounted on said plates, formed with bosses having passages communicating with said cylinders, and secured in position by means of nuts engaging with said bosses, plungers fitting the front ends of said cylinders, formed with cavities and with passages leading from said cavities to the front ends of the plungers, and provided at their rear ends with non-return valves, nipples at the front ends of said plungers communicating with the passages leading from said cavities, dip tubes secured to the lower ends of the bosses formed on said cylinders, automatic valves fitted to the lower ends of said dip tubes and to the upper ends of the passages formed in the bosses of said cylinders, means for returning said cylinders to their normal positions when displaced therefrom, and stops for determining the normal positions of said cylinders, substantially as described.

1,416,669. FLAGSTAFF. Charles W. Allman, Ottumwa, Iowa. Filed Aug. 4, 1921. Serial No. 489,696. 4 Claims. (Cl. 116—173.)



4. A tubular flag-staff having a bracket adapted to adjustably clamp the upper end of said staff said bracket having a hood, a sheave and guy support; a guy off set from and parallel to said staff; a flag holder slidably mounted on said guy; a halyard and flag housing opening into said tubular flag-staff; a sheave mounted in said opening, a shaft contained in said housing for winding said halyard as the flag is raised, a yoke for clamping said housing to said staff, and means for locking said shaft and housing.

1,416,670. OSCILLATING MAGNETO. Frederick W. Andrew, Brooklyn, N. Y., assignor to Eisemann Magneto Corporation, Brooklyn, N. Y., a Corporation of New York. Filed Sept. 18, 1919, Serial No. 324,543. Renewed Apr. 30, 1920. Serial No. 377,970. 10 Claims. (Cl. 123—149.)

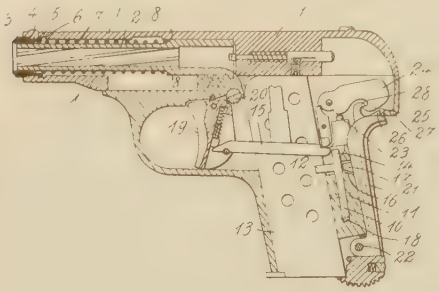


3. An oscillating mechanism for a magneto or other electric current generator, the mechanism comprising a coiled spring, two arms rotatably mounted on the magneto shaft, each of said arms being connected to one end of said spring, a fixed stop for limiting the movement of each arm in one direction, an arm rigidly secured to the magneto shaft and adapted to be intermittently actuated, and means on said last-mentioned arm adapted to engage either of the two arms connected to the ends of said spring.

1,416,671. AUTOMATIC PISTOL. Dionisio Artamendi, Barcelona, Spain, assignor to Beristain & Cia, Barcelona, Spain. Filed Mar. 30, 1921. Serial No. 457,018. 2 Claims. (Cl. 42—7.)

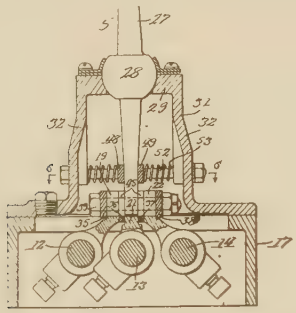
1. In an automatic pistol of the class described, a grip lever pivoted in the rear portion of the grip of the pistol and actuated by the same spring that actuates the hammer, in such manner that it projects normally from the grip, a hook at the rear part of the head of the hammer, another hook at the upper end of said grip lever adapted to normally engage the hook of the hammer and thus prevent firing while the grip lever is not grasped by the operator, a pivoted oscillating lever provided with an arm which bears upon the cartridge-magazine and is actuated by a spring which causes it to oscillate when the cartridge-magazine is drawn aside, a trigger connector, the oscillating lever having its head arranged in close prox-

imity to the end of the connector in such manner that on drawing away the cartridge-magazine, the last mentioned



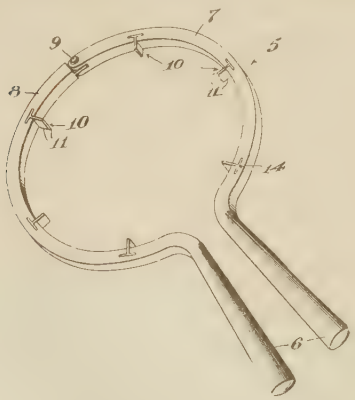
lever oscillates and its head is interposeod in the path of the connector, thus preventing the firing of the pistol.

1,416,672. CONTROL SET FOR CHANGE-SPEED TRANSMISSION. AXEL HJ. ASPROOTH, Rockford, Ill., assignor to Cotta Transmission Company, Rockford, Ill., a Corporation of Illinois. Filed Aug. 4, 1919. Serial No. 315,098. 19 Claims. (Cl. 74—39.)



1. In a lever control of the character described, the combination of shiftable devices, a control lever whose operated end is movable in transverse planes, in one for operative connection with certain of said devices and in the other for shifting the devices, and a tension plate mounted independently of said shiftable devices and normally urging the operated end of the lever toward neutral position and yieldingly opposing movement of the lever to any shifted position.

1,416,673. RING-SLOT-CLEANING TOOL. BERNARD BALDWIN, Los Angeles, Calif. Filed Mar. 22, 1921. Serial No. 454,596. 2 Claims. (Cl. 15—104.14.)



1. In a tool of the character described, a pair of pivotally connected segments having T-slots formed therein and opening to their inner surfaces, and T-shaped blades inserted in said slots having rectangular portions projecting from the inner faces of the segments.

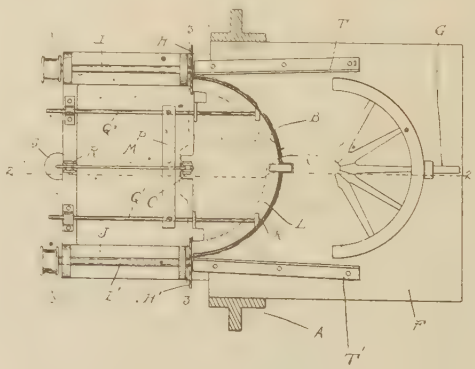
1,416,674. TRUCK. ARTHUR M. BARRETT, Winnetka, Ill. Filed Sept. 11, 1917. Serial No. 190,762. 11 Claims. (Cl. 254—10.)

1. A lifting truck comprising a wheeled frame, an elevating frame mounted thereon to move longitudinally and vertically, a vertically swinging steering lever, a rocking member mounted on said wheeled frame and adapted to be directly engaged and actuated by said steering lever, and means actuated by said rocking member for raising said elevating frame, said steering lever being arranged to swing laterally independently of said rocking member meanwhile maintaining its operative relation thereto.

1,416,675. TRUCK. ARTHUR M. BARRETT, Winnetka, Ill. Filed Feb. 5, 1918. Serial No. 215,488. 28 Claims. (Cl. 254—2.)

1. A lifting truck, comprising a main frame having supporting and steering wheels, an endwise movable lifting frame mounted on said main frame, a cable connected with said main and lifting frames, and reciprocating means in alinement with the turning axis of the steering wheels for deflecting said cable intermediately to move said lifting frame endwise.

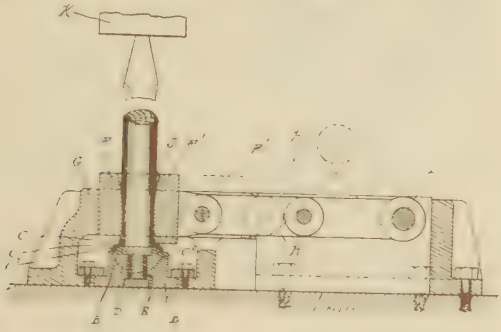
1,416,676. FELLY-FORMING MACHINE. JOSEPH E. BATIE, Detroit, Mich., assignor to Kelsey Wheel Company, Detroit, Mich., a Corporation of Michigan. Filed July 11, 1918. Serial No. 244,377. 7 Claims. (Cl. 143—48.)



1. The combination with a guide for conforming a felly to a true arc, of a table upon which the felly is placed

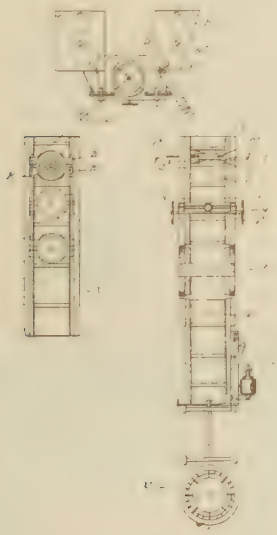
and from which it may be fed to said guide, a reciprocating plunger for engaging the felly and forcing the same into conformity to said guide, a saw for cutting off the felly when depressed by said plunger, and an ejector for disengaging the felly.

1,416,677. MACHINE FOR ENGAGING FERRULES WITH WHEEL SPOKES. JOSEPH E. BATIE, Detroit, Mich., assignor to Kelsey Wheel Company, Detroit, Mich., a Corporation of Michigan. Filed July 11, 1918. Serial No. 244,378. 3 Claims. (Cl. 144—2.)



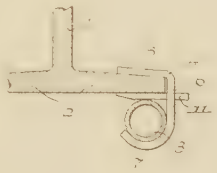
1. A machine for engaging spokes with fasteners comprising a seat for the fastener, a guide for engaging the ferrule of the fastener depressible into a recess in said seat, yieldable means for holding said guide in engagement with the ferrule, and a sizing die mounted in proximity to said seat and in exact registration with said guide permitting the displacement of the latter by the sized end of the spoke.

1,416,678. APPARATUS FOR MANUFACTURING VEHICLE WHEELS. JOSEPH E. BATIE, Detroit, Mich., assignor to Kelsey Wheel Company, Inc., Detroit, Mich., a Corporation of New York. Filed Oct. 28, 1918. Serial No. 259,906. 3 Claims. (Cl. 157—1.)



1. In an apparatus for assembling wheels, the combination with a support for complementary spoked felly sections, means for yieldably clamping the inner ends of the spokes to hold them in the same plane, a peripheral clamping band for surrounding the complementary sections, a floating jack for drawing the ends of said band toward each other to circumferentially and radially compress the work, means for guiding the work and holding the periphery thereof in substantially circular form, and boring means for the hub concentric with said guiding means.

1,416,679. PIPE OR CONDUIT HANGER. JAMES T. BARRY, Chicago, Ill. Original application filed Jan. 20, 1921, Serial No. 438,682. Divided and this application filed June 16, 1921. Serial No. 478,039. 8 Claims. (Cl. 248—32.)

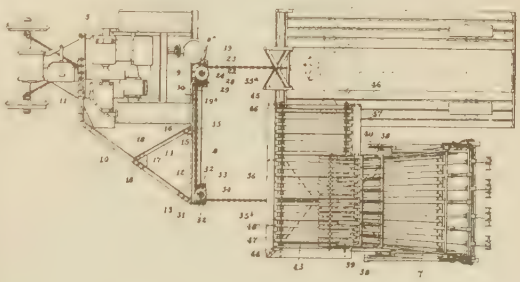


1. In a conduit hanger, the combination with a flanged beam, of a shank having a seat on one side of the flange and a tongue on the other side of said flange, and a retaining member disposed beneath the flange above said seat.

1,416,680. ROLLER BEARING. JEREMIAH BINGHAM, Toledo, Ohio, assignor to The Bock Bearing Company, Toledo, Ohio, a Corporation of Ohio. Filed Feb. 3, 1919. Serial No. 274,600. 1 Claim. (Cl. 64—62.)

A one-piece cage for tapered-roller bearings comprising end flanges, spacing members between the rollers, connecting said flanges, but inclined relatively to the conical path of the roller axes and crossing the latter substantially at the middle of the rolling surface of the rollers, a pair of inwardly turned wings on the opposite edges of one end of each of said spacing members and a pair of outwardly turned wings on the opposite edges of the other end of each of said members.

1,416,681. DRAFT ATTACHMENT. ROBERT R. BOWERS, Ottumwa, Iowa, assignor to Dain Manufacturing Co. of Iowa, Ottumwa, Iowa, a Corporation of Iowa. Filed Sept. 27, 1920. Serial No. 413,088. 16 Claims. (Cl. 213—67.)

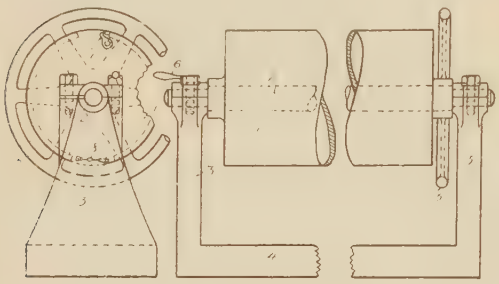


2. In a draft attachment for tractors, the combination of flexible means for connecting a plurality of devices to the tractor and means supported by the tractor, under control of the operator, to vary the fore and aft position of the devices.

1,416,682. METHOD OF PREPARING CUTTING AND SCORING MATRICES FOR PRINTING PRESSES. CHARLES W. BRITCHER, Springfield, Mass., assignor to The Babcock Printing Press Manufacturing Company, New London, Conn., a Corporation of Connecticut. Filed June 30, 1919. Serial No. 307,810. 2 Claims. (Cl. 101—1.)

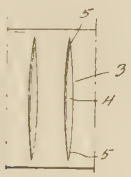
1. The method of preparing a cutting and scoring matrix for presses, which consists of first taking an im-

pression on the press from a form containing cutting and scoring rules, upon a matrix sheet attached to a removable cylinder jacket, removing the jacket and matrix sheet to a separate or dummy support, preparing or



routing the matrix sheet while said jacket is removed from the press, and afterwards returning said jacket and the matrix to the press whereby the latter may be operated for cutting and scoring.

1,416,683. SEALING MEANS. WINFRED MUDGE BROOKS, South Orange, N. J. Filed Sept. 24, 1921. Serial No. 502,963. 2 Claims. (Cl. 292—317.)



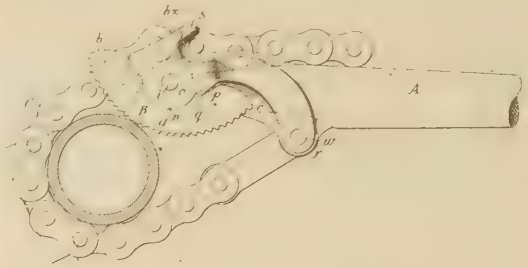
1. In a sealing device, a tell-tale member having a weakened zone, the weakening consisting of a groove of varying depth longitudinally with its deepest part at the center portion and shallow parts at its ends.

1,416,684. PLASTIC COMPOSITION FOR USE AS A COATING FOR WALLS OF BUILDINGS. LEWIS N. BROWER and PETER WERLE, Sellersburg, Ind. Filed May 9, 1921. Serial No. 468,083. 1 Claim. (Cl. 106—34.)

A composition for the production of plaster consisting of Brixment cement, Portland cement, lime, sand, hair fiber, and pulverized alum substantially in the proportions as follows: 1090 parts Brixment cement, 535 parts Portland cement, 185 parts lime, 185 parts sand, 5 parts hair fiber, and ½ part pulverized alum.

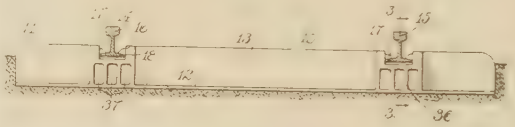
1,416,685. CHAIN PIPE WRENCH. GEORGE W. BUFFORD, Buffalo, N. Y., assignor to J. H. Williams & Company, Brooklyn, N. Y., a Corporation of New York. Continuation of application Serial No. 64,266, filed Nov. 30, 1915. This application filed June 30, 1921. Serial No. 481,723. 14 Claims. (Cl. 81—66.)

1. In a chain pipe wrench, the combination of a handle, a reversible jaw having working faces at the forward and rear parts of the same side of the jaw, a chain attached to the handle at the rear of both working faces and consequently arranged to grip a pipe and turn it by engagement with a forward working face only of said jaw, said jaw having its forward and rear ends bifurcated to permit the passage of the chain and having a central portion of the full width of the jaw, said jaw being adapt-



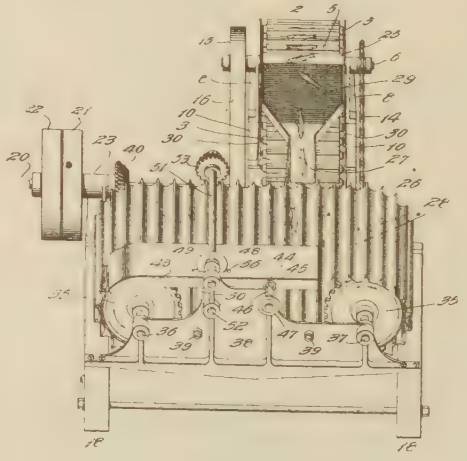
ed to be turned end for end so as to bring into forward operative position one or another of said working faces.

1,416,686. METAL RAILROAD TIE. ROBERT T. BURDETTE, Chicago, Ill. Filed Dec. 9, 1921. Serial No. 521,199. 7 Claims. (Cl. 238—69.)



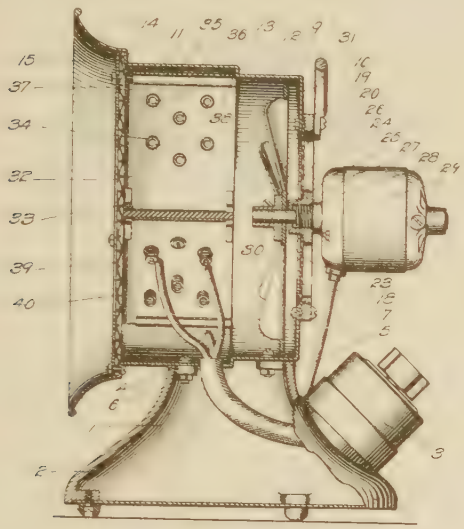
1. Railway track construction comprising, in combination, a metal tie having at each end an upwardly facing transverse socket with overhanging side walls, rails having foot flanges seated in the sockets, removable blocks entered between the overhanging side walls of the sockets and the foot flanges of the rails, and wedge means acting between the floor of each socket and the bottom of the corresponding rail.

1,416,687. FISH-POSITIONING MACHINE. WILLIAM F. BUTLER, Fairport, N. Y., assignor to American Can Company, a Corporation of New Jersey. Filed Oct. 28, 1916. Serial No. 128,317. 7 Claims. (Cl. 17—10.)



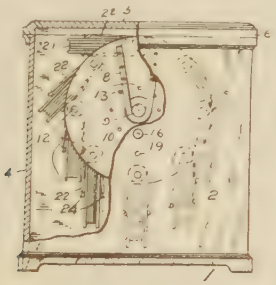
7. The combination of an inclined fish-positioning slide constructed to position and deliver fish head first from its lower end, a conveyer having its operating surface arranged in substantially the same plane as said slide, and means for operating the conveyer in said plane and transversely to the slide.

1,416,688. ELECTRIC HEATER. SAMUEL M. CARMEAN and JAMES H. CARMEAN, Kansas City, Mo. Filed Sept. 12, 1921. Serial No. 499,976. 7 Claims. (Cl. 219—42.)



1. An electric heater comprising a casing having an open end, a shoulder near the rear end of the casing, an impeller between the shoulder and the rear end of the casing, an electric heating member bearing against the shoulder, a shoulder at the front end of the casing, and a coil-retaining means connected to the second mentioned shoulder.

1,416,689. CABINET FOR PHONOGRAPHIC DISKS. LE ROY P. CLUTTER, West Finley, Pa. Filed Aug. 6, 1919. Serial No. 315,605. 2 Claims. (Cl. 211—16.)

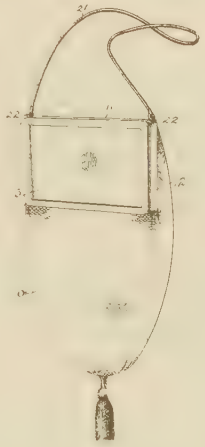


2. A cabinet for the purpose set forth comprising a revolvable carrier, and a plurality of book-like filing elements suspended from the carrier and each comprising a plurality of pocket forming members and a pair of covers therefor, each of said elements further including a pair of re-inforcing and protecting members extending from the back towards the front of the element on each side thereof, said re-inforcing members overlapping each other at the rear and having their forward portions inset.

1,416,690. HAND BAG. PHILIP COHEN, Elizabeth, N. J. Filed Feb. 16, 1921. Serial No. 445,300. 6 Claims. (Cl. 150—28.)

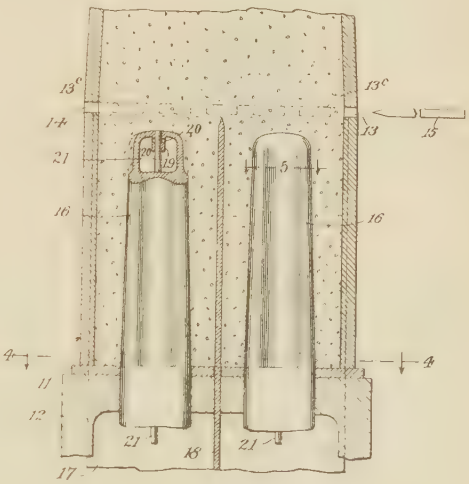
1. A hand bag with a short side and a long side and having a frame with a hinged lid therein, said frame being disposed so as to be suspended at the top part of the short side of the bag when the bag is carried.

5. A hand bag having a rigid frame, a lid swinging between its ends in the frame so that one end is moved inward when the lid is tilted, flexible material forming the body of the bag and secured to the frame, and a handle for suspending the frame edgewise so that it forms a panel at the top of one side of the bag, the



material at the top of the other side acting to prevent inward swinging of one end of the lid to hold the lid shut when the bag is so suspended.

1,416,691. MANUFACTURE OF HOLLOW CEMENTITIOUS PRODUCTS. ALFRED OWEN CROZIER, New York, N. Y. Filed June 12, 1920. Serial No. 388,525. 16 Claims. (Cl. 25—155.)

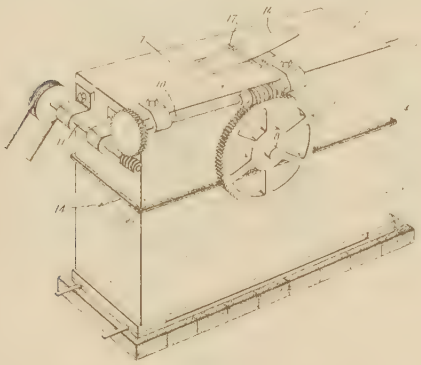


1. In the art of making hollow cementitious products, the improvement comprising establishing in a suitable upright container a mass of unset cementitious material, forcing one or more cores into the lower portion of the mass to produce cavities therein, severing the cored lower portion of the mass from the upper portion, retracting the cores and removing the severed portion, and allowing the upper portion of said mass of cementitious material to descend in the container for the formation of another product.

1,416,692. ELECTROLYTIC APPARATUS AND METHOD. CHRISTIAN DANTSIZEN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed May 21, 1920. Serial No. 383,076. 3 Claims. (Cl. 204—6.)

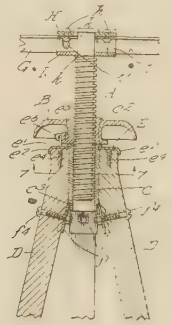
1. The method of producing laminæ of electrolytic iron which consists in electro-depositing iron upon a tungsten

cathode from an electrolyte, removing a part of said cathode from said electrolyte while submerging another



part of said cathode and stripping said deposit continuously from said cathode as a deposit bearing part of said cathode emerges from said electrolyte.

1,416,693. FITTING FOR STOOLS OR THE LIKE. ROBERT K. DAWSON, Guelph, Ontario, Canada. Filed May 26, 1921. Serial No. 472,627. 9 Claims. (Cl. 155—138.)

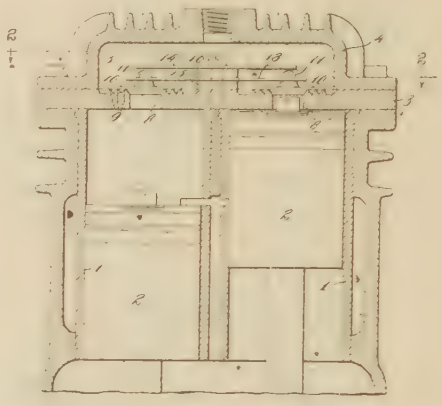


1. Means for connecting the legs of stools and the like, including a central upright part, a sheet metal member having its middle portion secured to said upright part and having a plurality of radially extending arms provided with downwardly extending flanges at the edges of said arms, said flanges being adapted to embrace the upper ends of the legs, a lower leg engaging member having a hole through which said upright member extends, and means for securing said legs to said lower member.

1,416,694. GAUGE. ADOLPH L. DE LEEUW, Plainfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Oct. 26, 1918. Serial No. 259,813. 7 Claims. (Cl. 33—178.)

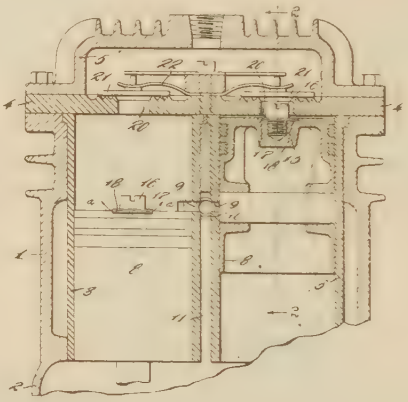
1. In a gauge, movable contact means, positive means for advancing and yielding means for retracting said movable means, said positive means including an operating lever, a separate indicating means, and means controlled by the movement of said lever for actuating said indicating means.

1,416,695. COMPRESSOR. JAMES H. DENNEDY, Detroit, Mich., assignor to Kelvinator Corporation, Detroit, Mich., a Corporation of Delaware. Filed Aug. 28, 1920. Serial No. 406,594. 5 Claims. (Cl. 230—34.)



1. In a compressor, an outlet valve comprising a seat, a valve member operatively engaging the same and comprising a circular sheet metal disc having a central hollow upstanding projection, and a leaf spring overlying said seat and having an aperture snugly receiving said projection.

1,416,696. COMPRESSOR. JAMES H. DENNEDY, Detroit, Mich., assignor to Kelvinator Corporation, Detroit, Mich., a Corporation of Delaware. Filed Aug. 28, 1920. Serial No. 406,595. 2 Claims. (Cl. 230—34.)

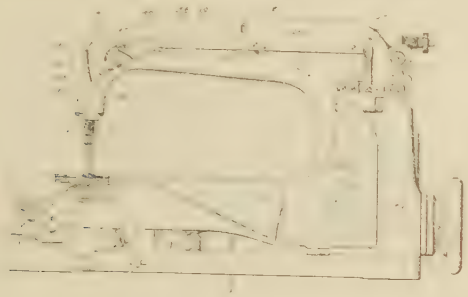


1. In a compressor, a piston having on its head a wide, shallow, flat bottomed slot, the bottom of said slot having a port and a flap valve of flat elastic, sheet metal located in said slot.

1,416,697. THREAD-CONTROLLING MECHANISM. ALBERT H. DE VOE, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed May 31, 1919. Serial No. 301,052. 10 Claims. (Cl. 112—241.)

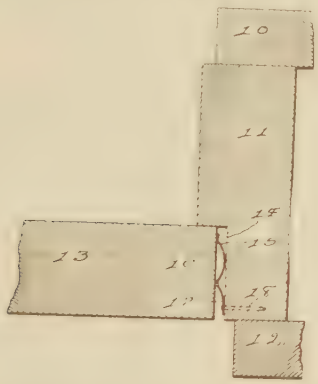
1. In a sewing machine, in combination, stitch-forming mechanism including a needle, a looper, and thread-controlling mechanism including a stationary thread-guide and a movable thread-guide spaced from the first thread-guide, a thread-governing member having spaced thread-engaging portions both of which are located intermediate said guides, and means for moving said member relative to said guides to draw thread back through the eye of the needle during the first part of its descent and before its point reaches the work, and for moving said member rela-

tive to said thread-guides to assist the needle in drawing up the previous needle-loop after it has been shed by the



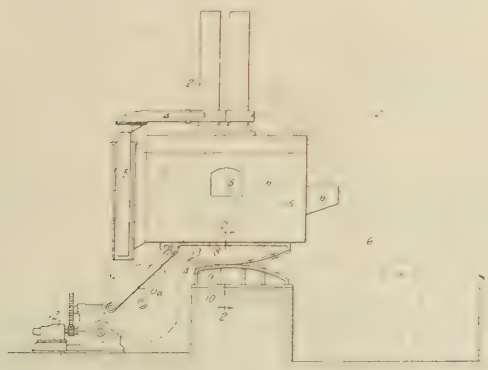
looper and during the last part of the downward movement of the needle.

1,416,698. WEATHER STRIP. JOSEPH C. DUNHAM, Oklahoma, Okla. Filed July 12, 1920. Serial No. 395,537. 1 Claim. (Cl. 20—69.)



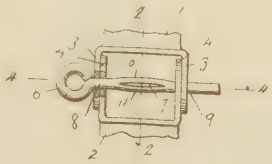
A compound-curved sheet metal weather strip formed in cross section into two arc-shaped portions the edges of one of which are adapted to bear against the edge of a door with the curved back of said portion bearing against the jamb in the rabbet thereof, the other portion being provided with an end portion for fastening to the jamb, the centers of curvatures of both arc-shaped portions being on the same side of the strip and the peaks of both curves engageable with the edge of a door to be placed under tension at separated points.

1,416,699. TILTING FURNACE. WALDEMAR DYRSSEN, New York, N. Y. Filed Dec. 2, 1920. Serial No. 427,778. 3 Claims. (Cl. 263—33.)



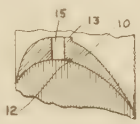
1. A tilting furnace provided with rockers rolling on curved tracks, the bearing faces being shaped to produce an approximately horizontal movement of the center of gravity of the furnace.

1,416,700. SPLIT PIN. FRANK J. FENICLE, Easton, Pa. Filed June 3, 1920. Serial No. 386,283. 4 Claims. (Cl. 85—5.)



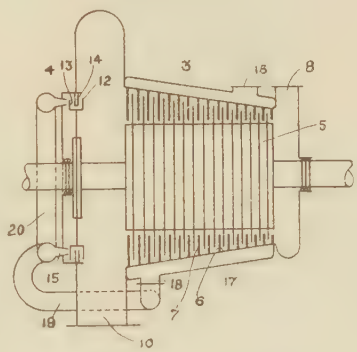
1. A pin including a shank having non-expansible ends, and a resilient portion between said ends capable of expansion and contraction.

1,416,701. TURBINE BLADE. WARREN B. FLANDERS, Essington, Pa., assignor to Westinghouse Electrical and Manufacturing Company, a Corporation of Pennsylvania. Filed June 22, 1920. Serial No. 390,905. 4 Claims. (Cl. 253—77.)



1. A turbine blade having a lashing opening and a lashing member having a deformable tail or tongue portion passing therethrough, a portion of the blade surrounding the opening being of constant thickness to constitute abutments for the deformed tail or tongue portions of the lashing.

1,416,702. REVERSING TURBINE. WARREN B. FLANDERS, Essington, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed June 22, 1920. Serial No. 390,907. 5 Claims. (Cl. 253—70.)

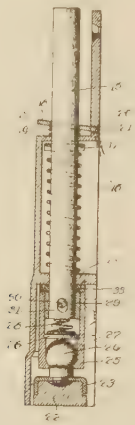


1. In an axial flow turbine, the combination of an ahead blading section, a reverse blading section, and a jacket surrounding one section and adapted to receive steam and discharge it into the other section.

1,416,703. DOOR STOP AND HOLDER. MERTON H. FORCE, Danville, Ill. Filed July 12, 1919. Serial No. 310,460. 2 Claims. (Cl. 292—178.)

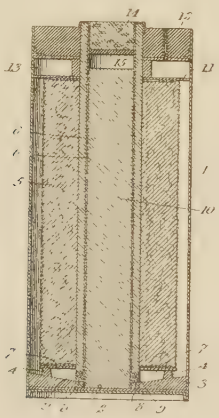
1. In a door stop the combination of a casing, a plunger therein, a spring acting to resist downward movement of the plunger, a catch for the plunger, a tubular member in the lower end of the casing and separate from said

plunger said member providing a socket, a foot having a ball to engage said socket, a spring between the lower



end of the plunger and said foot, and a pin and slot connection between the plunger and the tubular member.

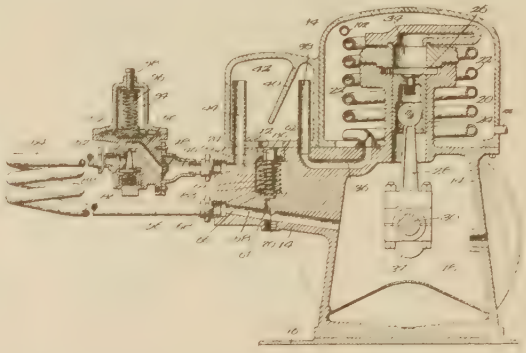
1,416,704. ELECTRIC BATTERY. HARRY F. FRENCH, Fremont, Ohio, assignor to National Carbon Company, Inc., a Corporation of New York. Filed Apr. 26, 1920. Serial No. 376,725. 11 Claims. (Cl. 204—38.)



1. In an electric cell of the kind described, the combination of a metallic electrode and a depolarizing mix incapable of relative adjustment and having a space therebetween, and a receptacle within the cell containing a supply of activating material adapted to be ejected from the receptacle by application of sufficient pressure and forced into the space between the electrode and mix.

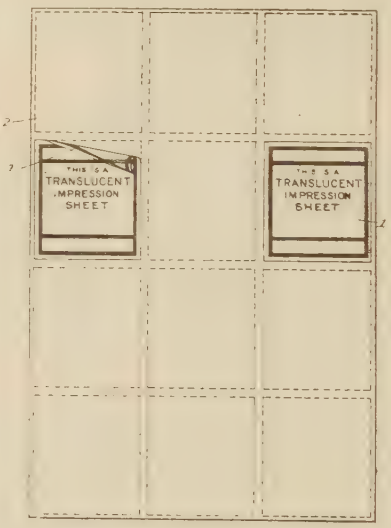
1,416,705. COMPRESSING MACHINE WITH AUTOMATIC OIL RETURN. ALFRED O. GIRARD, Decatur, Ill., assignor to Glacier Refrigerating Machine Co., a Common Law Trust, Alfred O. Girard, trustee, Chicago, Ill. Filed Apr. 25, 1919. Serial No. 292,572. 4 Claims. (Cl. 230—32.)

1. In the machine of the class described having high and low pressure chambers, automatic means for equalizing the pressures of said chambers, there being an oil passage between said chambers, valve mechanism in the oil passage, operative when there is working pressure in the high pressure chamber to pass oil from the high pressure chamber into said oil passage and automatically movable when the pressures in the two chambers are more nearly equalized to a position to pass oil from the oil passage to



the low pressure chamber, there being at no time an open path through said passage for the purposes set forth.

1,416,706. MASTER SHEET FOR USE IN MAKING LITHOGRAPHIC PRINTING SURFACES AND METHOD OF MAKING THE SAME. ALFRED GRASS, New York, N. Y., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed June 8, 1918. Serial No. 238,970. 5 Claims. (Cl. 41—46.)

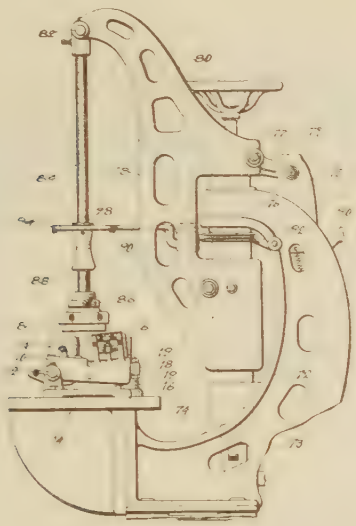


1. A translucent master sheet for the production of lithographic printing surfaces, comprising a fibrous sheet treated to render it translucent and moisture resistant, and having thereon a design in light-obstructing color, said sheet being attached to a translucent backing sheet treated with neat's-foot oil and turpentine, said fibrous sheet and backing sheet being adhered together to inclose said design.

1,416,707. CUTTING MACHINE. JOHN B. HADAWAY, Swampscott, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 8, 1919. Serial No. 322,446. 13 Claims. (Cl. 164—19.)

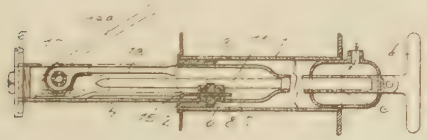
1. In a machine of the class described, a cutter, a cooperating presser member, power means for causing relative movement of the presser member and cutter, starting

mechanism for controlling said power means, a support for the presser member pivoted to swing freely about a



horizontal axis and under direct manual control of the operator, and means for yieldingly retaining the presser member in operative position over the cutter.

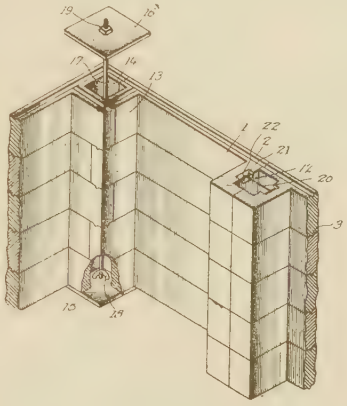
1,416,708. APPARATUS FOR BLOWING OUT SOOT IN BOILER TUBES. ERNST FREDERIK CARL HAGEDORN and HANS PETER HANSEN, Helsinger, Denmark. Filed July 8, 1918. Serial No. 243,936. 2 Claims. (Cl. 122—391.)



1. In an apparatus for blowing out soot in boiler tubes, the combination of a tube-shaped casing closed at the rear end and adapted to be placed in a boiler tube, a steam-spout and a steam-tube placed in the said casing and communicating with the steam supply, a cock-case having teeth and connecting the said steam-spout with the said steam-tube, a handle for turning the said casing, a rack acting upon the teeth of the said cock-case, a screw-rod connected with the said rack, and a gearing for moving the said screw-rod lengthwise, when said handle is turned, substantially as set forth.

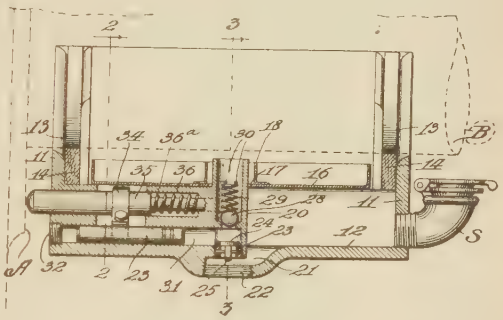
1,416,709. BUILDING CONSTRUCTION. FRANK R. HAHN, Decatur, Ill., assignor, by direct and mesne assignments, of fifty-one and two-thirds per cent to W. P. Landon, Rochelle, Ill., and fifteen per cent to A. G. Clark, St. Paul, Minn. Original application filed Mar. 2, 1917, Serial No. 151,906. Divided and this application filed Feb. 7, 1919. Serial No. 275,566. 7 Claims. (Cl. 72—38.)

1. A construction of the character described for forming a single wall construction, including in combination a plurality of units, each unit being composed of a single body web for forming the inside and outside of the wall, each unit having a flange extending laterally and inwardly near each end thereof, each flange having a right angle extension projecting therefrom, the flanges and ex-



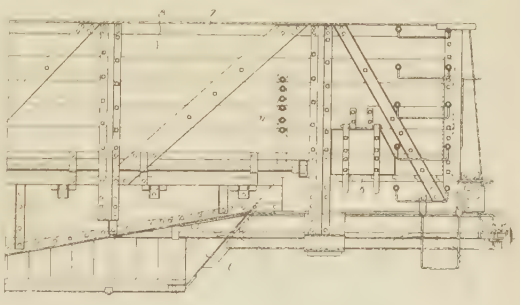
tensions at adjacent ends of adjacent slabs cooperating to provide a hollow post or column.

1,416,710. LOCOMOTIVE JOURNAL LUBRICATOR. JAMES J. HENNESSY, New York, N. Y. Filed Apr. 23, 1921. Serial No. 463,842. 3 Claims. (Cl. 64—24.)



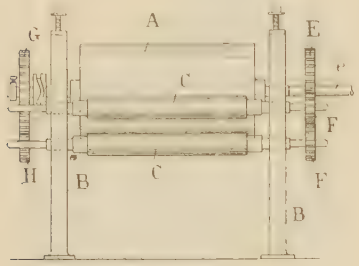
1. In a journal lubricator, a one-piece casting comprising a lubricant reservoir and a pump cylinder and intake and discharge tubes leading to said cylinder from said reservoir and from said cylinder to a point adapted to be near a journal to be lubricated when the lubricator is assembled, with a railway journal box.

1,416,711. CONVERTIBLE DUMP CAR. DAVID HINDAHL, Chicago, Ill., assignor to Rodger Ballast Car Company, Chicago, Ill., a Corporation of Maine. Filed Mar. 29, 1922. Serial No. 547,634. 8 Claims. (Cl. 105—243.)



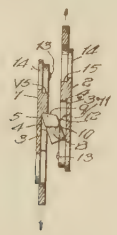
1. In a railway car, a sectional end, certain of said sections being removable, and means located at points intermediate the car ends adapted to retain said sections in place at such points.

1,416,712. CALICO-PRINTING MACHINE. THOMAS HINDLE, Glossop, England. Filed Dec. 16, 1920. Serial No. 431,164. 1 Claim. (Cl. 101—178.)



In a calico printing machine the combination with the main cylinder and a set of printing rollers in contact therewith driven by box wheels from a pinion or crown wheel on the driving shaft and driving the cylinder by friction, of another set of printing rollers of a different diameter in contact with the main cylinder and driven frictionally thereby, box wheels at the opposite side of the machine on the mandrels of this set of printing rollers, and a free wheel on the cylinder shaft gearing therewith to maintain the pattern on the second set of printing rollers in register substantially as described.

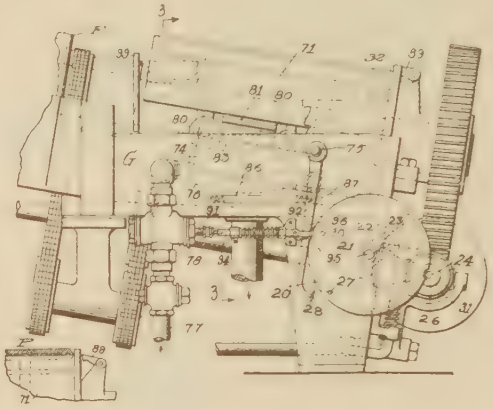
1,416,713. FUSIBLE LINK. MORTON K. HOPKINS, Chicago, Ill., assignor to John L. Kennedy, Chicago, Ill. Filed Feb. 24, 1919. Serial No. 278,779. 7 Claims. (Cl. 169—42.)



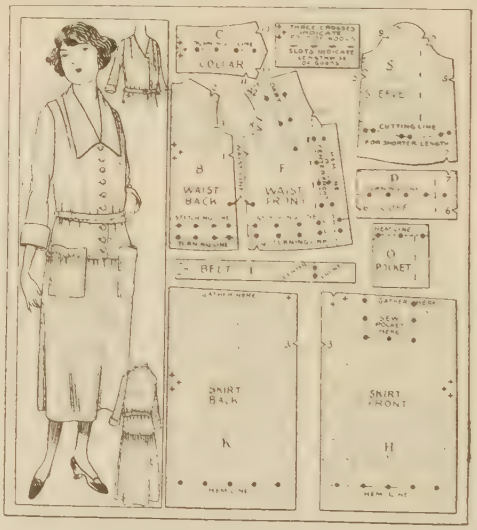
1. A fusible link comprising mating plates each provided with a recess which when the plates are placed face to face one upon the other provide a key cell between them, in combination with a cooperating key adapted to loosely seat in the cell formed by the recesses, the walls of the key and recesses having cooperating surfaces including a surface on the wall of one of the plates extending at right angles to the faces of the plates, and an adjacent inclined face whereby as the plates are moved longitudinally one upon the other the key will disengage from the key cell.

1,416,714. METHOD OF COOLING FINISHED STEREOTYPE PRINTING PLATES. CHARLES E. HOPKINS, Plainfield, N. J. Original application filed Feb. 25, 1911, Serial No. 610,834. Divided and application filed Apr. 2, 1917, Serial No. 159,117. Divided and this application filed July 12, 1920. Serial No. 395,560. 6 Claims. (Cl. 22—4.)

1. A method of cooling curved cast plates to control the diameter thereof, which consists in applying a cooling fluid to one curved surface of a plate and preventing its contact with the other curved surface thereof, and positively controlling the contraction and expansion of the plate by limiting the motion of the straight edges of the plate toward or from each other.

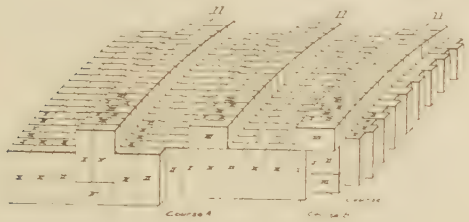


1,416,715. PATTERN CHART OR ENVELOPE. FRANCIS HUTTER, New York, N. Y., assignor to The McCall Company, a Corporation of New York. Filed Oct. 15, 1921. Serial No. 508,003. 3 Claims. (Cl. 283—1.)



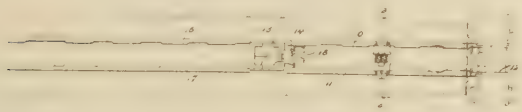
1. A pattern chart containing an illustration of the complete garment and separate illustrations of the different pattern pieces substantially in line with the locations of the corresponding parts in the complete illustration, said separate illustrations showing lines of perforations used on the pattern pieces and having the different groups of such perforations connected by lines so as to segregate the groups from one another.

1,416,716. ROOF CONSTRUCTION FOR REVERBERATORY FURNACES. ARCHIE NOEL JETTE, Anaconda, Mont. Filed Aug. 31, 1920. Serial No. 407,141. 8 Claims. (Cl. 263—46.)



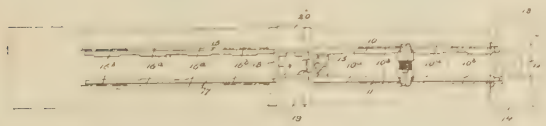
1. An arched roof for a metallurgical furnace having ribs projecting from its upper surface, in which the bricks of alternate courses are similarly disposed and in which the joints of all bricks in one course are overlapped by bricks in the adjacent courses.

1,416,717. LOCOMOTIVE. WILLIAM F. KIESEL, Jr., Altoona, Pa. Filed Feb. 2, 1920. Serial No. 355,708. 6 Claims. (Cl. 105—175.)



3. In an articulated locomotive having a frame adapted to swing transversely relative to the boiler, a transverse horizontal compression spring, a pair of members each disposed between one end of said spring and the frame, and means connecting either of said members to the boiler while the opposite member is abutting the frame.

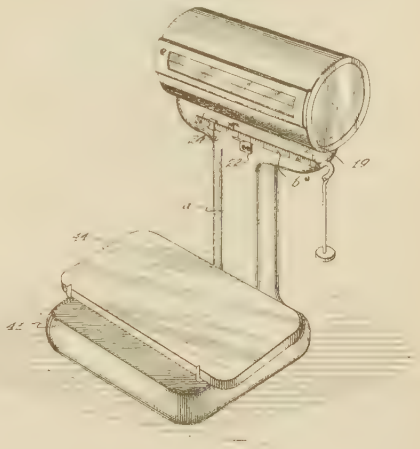
1,416,718. LOCOMOTIVE. WILLIAM F. KIESEL, Jr., Altoona, Pa. Filed Feb. 5, 1920. Serial No. 356,387. 13 Claims. (Cl. 105—175.)



1. In a locomotive, a front frame, a rear frame, one of said frames being rigid with the boiler and the other adapted to swing laterally thereof and means pivotally connecting said frames end to end, said pivot being in front of the rear frame and at a distance from the axis of the adjacent drivers approximately equal to the radius of said drivers.

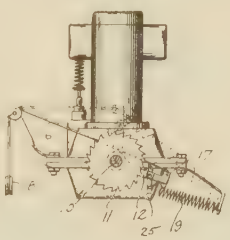
1,416,719. SCALE. BERT W. KING, Detroit, Mich. Filed Nov. 26, 1919. Serial No. 340,707. 21 Claims. (Cl. 265—69.)

1. In a scale, the combination of a load-carrying lever, a platform stem pivotally connected thereto, a check link connected with the platform stem, an actuating lever, a link connecting the two levers having a plurality of simultaneously shiftable connections with one of the levers



to change the travel of the actuating lever, and means for shifting said connection.

1,416,720. STARTER FOR INTERNAL-COMBUSTION ENGINES. EARL L. KLISE, Le Mars, Iowa. Filed May 23, 1921. Serial No. 471,610. 2 Claims. (Cl. 74—55.)

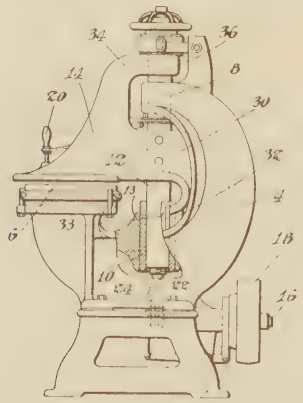


1. In an engine starter, the combination with a crank shaft having a ratchet gear secured thereto, of an arm rotatably mounted upon the shaft and normally disposed in one position, a counterweighted lever pivoted intermediate its ends to said arm provided upon one end thereof with a ratchet tooth engagement dog, a flexible element for rotating said arm upon said shaft and connected with the other end of said lever to shift the same about the pivot thereof upon initial movement of the flexible member and bring said dog into engagement with the teeth of said ratchet gear, and a retractile element for returning said arm to normal position.

1,416,721. PRESS. CLYDE L. KNOTT, Beverly, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed May 21, 1920. Serial No. 383,267. 21 Claims. (Cl. 164—23.)

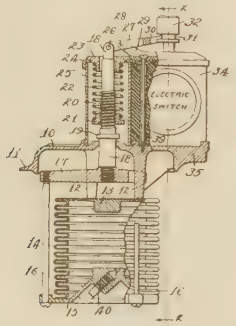
1. In a machine of the class described, a work supporting bed, a presser member movable laterally over the bed and also toward and from the bed in pressure applying operations, a post for supporting the presser member, said presser member having a portion arranged to provide a supporting connection between the presser member

and the post, a plurality of bearings for the post and a plurality of supporting bearings for the presser member



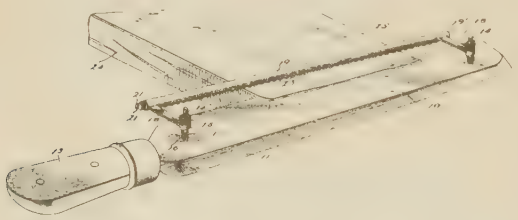
so arranged as to relieve most of the strain on the post during pressure applying operations.

1,416,722. THERMOSTAT. FREDERICK H. KOLBE and EDWARD R. DE LUIZ, Detroit, Mich., assignors to Kelvinator Corporation, Wilmington, Del., a Corporation of Delaware. Filed Mar. 21, 1919. Serial No. 284,039. 9 Claims. (Cl. 200—140.)



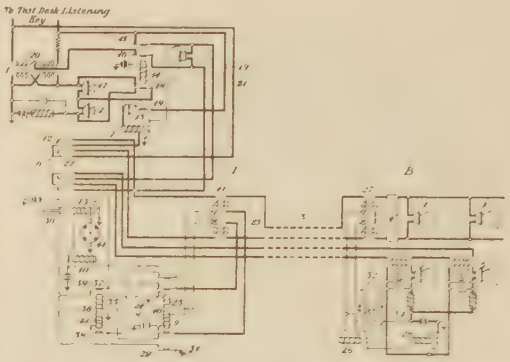
1. The combination of a supporting plate having on one side a plurality of spaced abutments, a longitudinally expansible vessel having one end presented against said abutments, a head located between said plate and vessel and having cavities for said abutments, connecting means between said head and the further end of the said vessel, a controlling device mounted upon the opposite side of said plate, and operative connections between said head and controlling-device.

1,416,723. KNIFE. EMIL KRAFFT, Baltimore, Md. Filed Apr. 29, 1921. Serial No. 465,563. 12 Claims. (Cl. 30—20.)



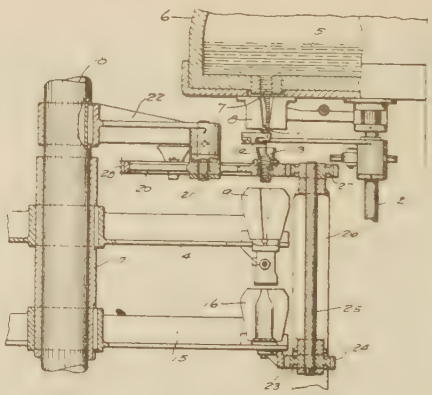
1. A knife of the character described, comprising in combination, a slicing blade, a slicing guide carried thereby, and means associated with the guide adapted to facilitate the sliding movement thereof over the surface with which the same may contact during reciprocation of the slicing blade.

1,416,724. TELEPHONE CIRCUITS. GEORGE W. KUHN, Brooklyn, N. Y., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Mar. 16, 1918. Serial No. 222,865. 10 Claims. (Cl. 179—175.)



1. In a telephone system, a talking circuit extending between two stations, a telephone set and a signal located at one of the stations, a telephone set at the other station including a normally open circuit for the transmitter and a switch at said first mentioned station controlling at that station the connecion beween the telephone set and the talking circuit, and the operation of said signal and at the other station the continuity of the normally open transmitter circuit.

1,416,725. MEANS FOR GUIDING MOLTEN GLASS. RICHARD LA FRANCE, Toledo, Ohio, assignor to The Owens Bottle Company, Toledo, Ohio, a Corporation of Ohio. Filed July 10, 1918. Serial No. 244,135. 16 Claims. (Cl. 49—5.)

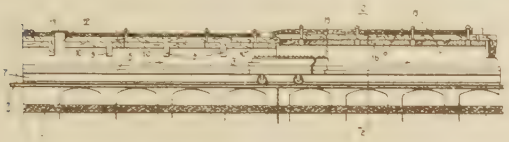


16. The combination of a series of molds, means to move the molds in an annular path, a series of funnel shaped guides, means to move the guides at the same linear speed in a smaller annular path about an axis within the mold path, the guide path passing over the mold path at one point, and a glass supply means above said point.

1,416,726. BURNING CERAMIC WARES AND APPARATUS THEREFOR. TAINE G. MCDOUGAL, Flint, Mich., assignor to Champion Ignition Company, Flint, Mich., a Corporation of Michigan. Continuation of application Serial No. 329,705, filed Oct. 10, 1919. This application filed July 18, 1921. Serial No. 485,784. 12 Claims. (Cl. 25—142.)

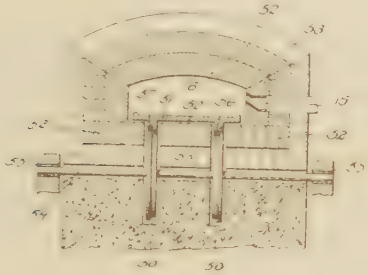
1. That improvement in the art of burning ceramic wares which consists in continuously passing said wares through a kiln having a pre-heating zone, a high-temper-

ature zone and a cooling zone, and maintaining said wares openly exposed to radiation from the under surface of the ceiling of the kiln in the high-temperature zone for a



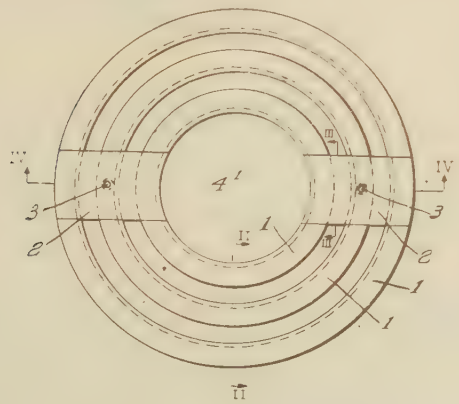
period sufficient to insure thorough burning throughout the whole mass of said wares, said under surface being intensely heated by combustion in the space between it and the wares.

1,416,727. BURNING CERAMIC WARES. TAINE G. MCDOUGAL, Flint, Mich., assignor to Champion Ignition Company, Flint, Mich., a Corporation of Michigan. Original application filed Oct. 10, 1919, Serial No. 329,705. Divided and this application filed July 28, 1921. Serial No. 488,135. 5 Claims. (Cl. 25—142.)



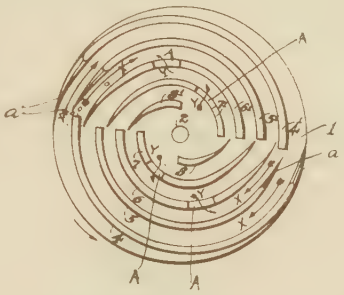
1. In a continuous kiln for burning ceramic wares, a thin highly refractory carrier forming the support for the wares, supporting means on which the carrier travels through the kiln, the space about said supporting means being filled in with heat insulating material to a level close up to the lower side of the carrier, said supporting means including a highly refractory element projecing through the floor of the kiln on which the carrier directly rests and with reference to which said carrier is movable.

1,416,728. EMERY RING. DANIEL FREDERICK MCGOVERN, Montpelier, Vt. Filed Feb. 26, 1920. Serial No. 361,491. 2 Claims. (Cl. 51—209.)



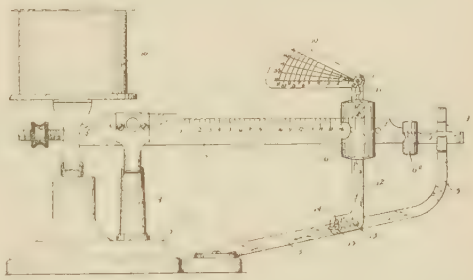
1. In an emery ring, a plurality of spaced open top concentric ring sections, each ring section having its inner face continuously undercut to assist the abrasive to work peripherally outwardly under the ring sections, and the overhang of each undercut face tending to check the peripheral throwing tendency of the outer face of the ring section next within.

1,416,729. POLISHING WHEEL. DANIEL F. MCGOVERN, Montpelier, Vt. Filed May 13, 1921. Serial No. 469,094. 3 Claims. (Cl. 51—209.)



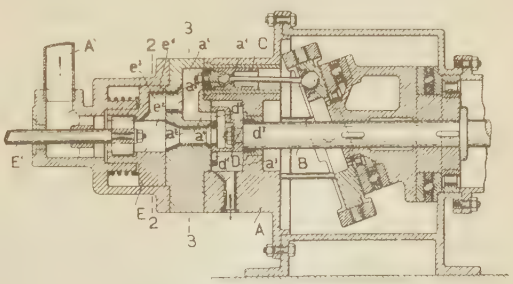
1. A polishing wheel comprising a plate having on its working face a plurality of spaced flanges, the space between the outer pair of flanges defining an uninterrupted abrasive feed channel and an inner pair of flanges included by said outer pair having openings between their ends for the radial return of the abrasive to said feed channel, the opening in one of said flanges being staggered with relation to the opening of the other flange.

1,416,730. ICE-CREAM OVERRUN TESTER. WILLIAM J. MCLAUGHLIN, Owatonna, Minn. Filed May 19, 1920. Serial No. 382,489. 5 Claims. (Cl. 265—30.)



1. The combination with a weighing scale comprising a single scale beam and a poise movable thereon, of a bulk percentage indicator associated with said scale and co-operating with said poise, said percentage indicator comprising a graduated plate having a plurality of lines of different lengths representing a certain percentage of different original weights, and a pointer on said poise co-operating with said scale to indicate when the bulk of frozen substance has been increased to a proper percentage.

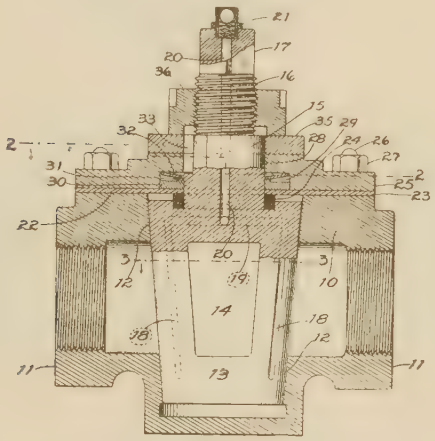
1,416,731. BY-PASS SYSTEM FOR PISTON PUMPS. FRIEDRICH MARTIN, Essen, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Sept. 25, 1920. Serial No. 412,895. 3 Claims. (Cl. 103—77.)



1. A device of the class described comprising a driving shaft, a multiplicity of cylinders, a starting slide common

to all cylinders and partaking in the rotary movement of the driving shaft, a suction chamber, a control member provided with ports for providing independent communication between the cylinders and the suction chamber and, said control member being rotatable for closing said independent communications.

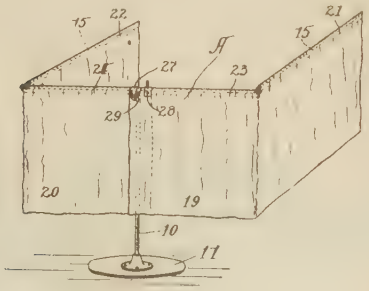
1,416,732. PLUG COCK. JESSE C. MARTIN, Jr., San Francisco, Calif. Filed Feb. 5, 1921. Serial No. 442,862. 5 Claims. (Cl. 251—93.)



1. In a plug cock, a plug, a plug seat, means for confining lubricant under pressure between the plug and plug seat surfaces, a filling inlet communicating with said lubricant confining means, means for closing said filling inlet, and fluid tight means for the attachment of a lubricant compressor to said cock in communication with said inlet.

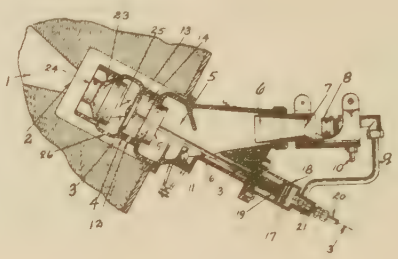
2. In a plug cock, a casing having a plug seat, a plate affixed to the casing, a diaphragm between the plate and the casing, a plug seated in the casing and rotatably and adjustably held by the plate against vertical movement and resilient means for seating the diaphragm against the plug, lubricant passages between the plug and plug seat surfaces, a lubricant filling inlet communicating with said passages and a check valve in the filling inlet.

1,416,733. HOSPITAL SCREEN. DAVID E. MATSON, St. Paul, Minn., assignor to William A. Carlson, Minneapolis, Minn. Filed Feb. 7, 1920. Serial No. 356,844. 6 Claims. (Cl. 45—106.)



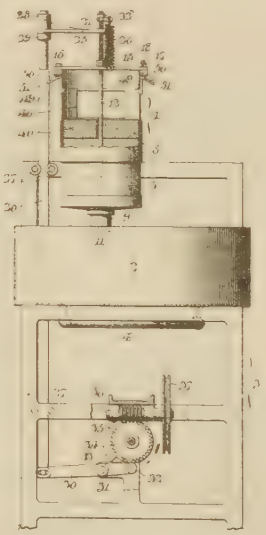
1. A screen, comprising a single supporting standard, a main curtain supporting rod pivoted centrally to the upper end of said standard and adapted to extend horizontally thereto, extension curtain supporting rods pivoted to the ends of said main supporting rod and a curtain adapted to be supported by said main and extension rods with its body and lower portion freely depending therefrom to give access from one side to the other of said screen at any point throughout the length thereof on either side of the main supporting standard.

1,416,734. BURNER. ROBERT F. METCALFE, Erie, Pa. Filed July 25, 1919. Serial No. 313,422. 12 Claims. (Cl. 158—28.)



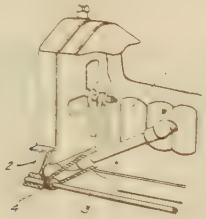
1. In a burner, the combination of a burner chamber having a main flame opening and a pilot flame opening, the flame from said pilot flame opening being positioned to maintain the walls of the chamber at an operative temperature; and means for injecting a combustible mixture to the chamber.

1,416,735. DEVICE FOR FORMING PASTRIES AND THE LIKE. FRANK E. MORRIS, Philadelphia, Pa. Filed Apr. 2, 1920. Serial No. 370,638. 6 Claims. (Cl. 107—14.)



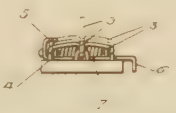
2. In a machine for producing annular pastry formations, the combination of a storage receptacle for dough having at its bottom a die outlet; a cutter disk movable downward and upward out of and into said die outlet, so as, on the one hand, to afford an annular opening for extrusion of the material, and, on the other hand, to shear off the extruded material by entry within said die outlet; and actuating rod for said disk extending upward therefrom through said receptacle; and a weight in said receptacle about said rod actuated by gravity to exert upon the dough pressure sufficient to extrude a formation from the die outlet at each opening thereof by said disk.

1,416,736. POWER JACK FOR AUTOMOBILES. EMILE MOSES, Minneapolis, Minn. Filed Feb. 10, 1921. Serial No. 443,855. 10 Claims. (Cl. 254—86.)



1. A power jack for an automobile comprising a shaft permanently connected to the frame of the machine and extending along the front side thereof, means for driving said shaft from the front end of the engine and a detachable shaft to be attached to the frame of the machine and be connected with said first mentioned shaft at one end, and a geared jack to which the last mentioned shaft is adapted to be connected at its other end.

1,416,737. TRAP CATCH. THOMAS LAURENCE, MUNROE, Fall River, Mass. Filed Oct. 14, 1919. Serial No. 330,635. 4 Claims. (Cl. 43—97.)

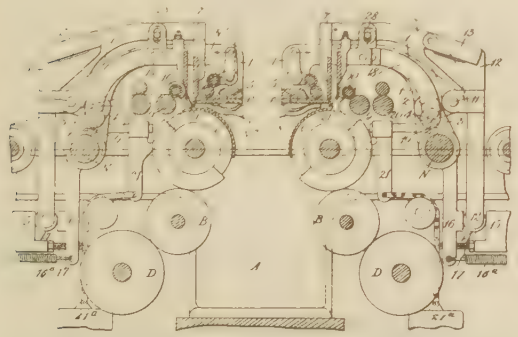


1. A trap catch comprising a support, a member movably mounted thereon and adapted to extend above and engage a trap jaw, and means for limiting the movement of said catch, said member being normally out of contact with said trap jaw when in operative position.

1,416,738. BATTERY CONSTRUCTION. ALBERT L. MUREN, Burlington, Iowa. Filed Jan. 11, 1919. Serial No. 270,729. 3 Claims. (Cl. 204—29.)

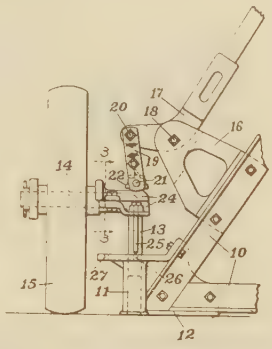
1. An alkaline battery electrolyte containing an alkaline tungstate.

1,416,739. COMBING MACHINE. JOHN WILLIAM NASMITH, Stockport, England. Filed Aug. 7, 1911. Serial No. 642,726. 7 Claims. (Cl. 19—118.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



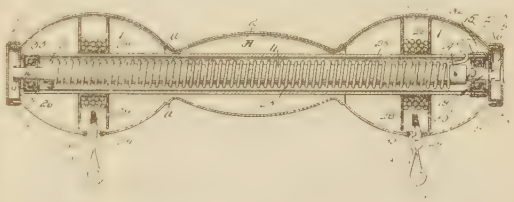
1. In a combing machine, the combination of a combing cylinder, a nipper for holding the material during the combing operation, means for combing the material including a top comb having arms pivoted in front of the combing cylinder, means for feeding the material to the combing means, and means for detaching and piecing the combed material.

1,416,740. WHEEL MOUNTING. LEONARD B. NEIGHBOUR, Moline, Ill., assignor to Deere & Company, Moline, Ill., a Corporation of Illinois. Filed Apr. 12, 1920. Serial No. 373,158. 10 Claims. (Cl. 280—44.)



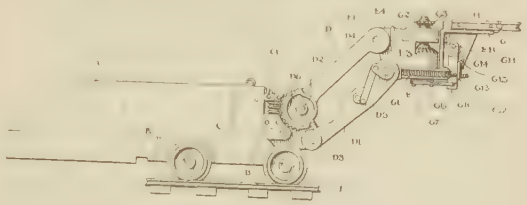
1. The combination of a frame, a supporting wheel mounted thereon, said wheel being movable horizontally into different positions with respect to the frame, means for vertically moving said frame to cause it to rest upon the ground or be raised therefrom, and means for locking the wheel in its said different adjusted positions.

1,416,741. EXERCISING APPARATUS. JOHN S. C. NICHOLLS, Boston, and MARTIN W. SMITH, Somerville, Mass. Filed Aug. 17, 1920. Serial No. 404,281. 6 Claims. (Cl. 46—69.)



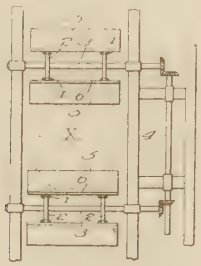
1. An exercising apparatus of the character described comprising a handle-piece consisting of two concavo-convex metal sections each made at opposite ends thereof with nipple segments; means fitted onto said nipple segments to hold said sections together; a drum rotatably mounted within said handle-piece; a cable having one end thereof fastened to said drum, said cable extending from said drum through a hole in said handle-piece to the exterior of the latter, and a spring within said handle-piece and connected with said drum for winding said cable onto the latter.

1,416,742. MINING AND QUARRYING MACHINE. FRED OLDROYD, Cincinnati, Ohio. Filed June 16, 1921. Serial No. 478,090. 13 Claims. (Cl. 262—30.)



5. In a machine of the nature described, the combination with a head and a tool support hinged to each other on an axial line which is transverse to the length of the machine, operator-controlled gearing for slowly turning said tool support on said axial line, and detachable means including a spring for securing the tool support to a member of said gearing, substantially as described.

1,416,743. TRAY ELEVATOR. SAMUEL OLSON, Chicago, Ill., assignor to Samuel Olson & Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 8, 1920. Serial No. 429,074. 7 Claims. (Cl. 198—163.)

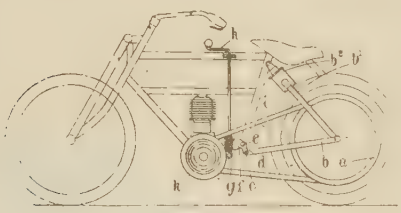


1. In an elevator comprising a pair of opposed vertically traveling belts, each consisting of a pair of chains with flights connecting them transversely at intervals, each flight having a horizontally extending part for supporting a load and a vertically extending part rigid therewith; a fixed member extending vertically between the two chains of each belt and presenting a flat surface for contact with the vertically extending parts of said flights.

1,416,744. DISHWASHER. FLOYD R. PERKINS, Chicago, Ill., assignor to Charles H. Fuller Co., Chicago, Ill., a Corporation of Illinois. Filed June 7, 1920. Serial No. 387,134. 2 Claims. (Cl. 294—28.)

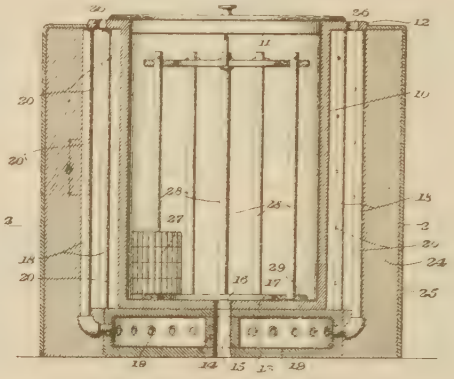
1. A pair of dish washing tongs comprising a lower broad dish sustaining jaw member and an upper comparatively narrow jaw member, said members having their adjacent faces concaved in opposite directions, whereby a dish can be readily washed while held in said tongs.

1,416,745. MOTOR CYCLE. JAMES ARTHUR PETERS, the White House, near Scarborough, England. Filed Jan. 12, 1922. Serial No. 528,682. 1 Claim. (Cl. 64—8.)



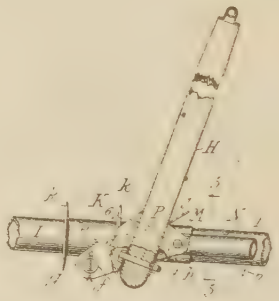
In a multi-speed control for motor cycles, including an automatically expansible drive pulley, a driven pulley for operating the rear wheel, a movable support for the drive pulley to permit said pulleys to be adjustably and relatively spaced, said support including a rod connected at its rear end to the axis of the driven pulley, links pivotally supported on the motor cycle and connected to the forward end of said rod, one end of said links being formed to provide a tooth sector, and a manually operable worm engaging said sector, whereby the links may be adjusted on their pivots to move the rod longitudinally, and a belt connecting the pulleys.

1,416,746. GAS FURNACE. WALTER C. PETERSON, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Jan. 4, 1919. Serial No. 269,668. 14 Claims. (Cl. 263—42.)



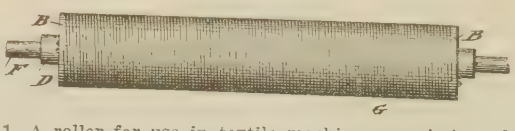
1. A gas furnace of the character described including in combination, a metal pot having a bottom and side walls, and means for directing a plurality of uniformly spaced jets of combustible fluid against the surface of said side walls for the purpose set forth.

1,416,747. CHASSIS STRUCTURE FOR AIRPLANES. WALTER H. PHIPPS, New York, N. Y., assignor to Ordnance Engineering Corporation, New York, N. Y., a Corporation of New Jersey. Filed Sept. 24, 1918. Serial No. 255,456. Renewed May 15, 1920. Serial No. 381,747. 10 Claims. (Cl. 244—2.)



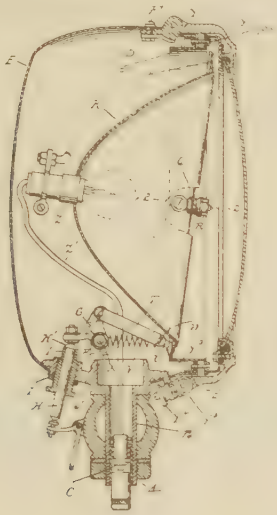
1. An airplane chassis construction including in combination, side frames, an axle extending laterally, wheels mounted on the end portions of the axle, and means for connecting the side frames to the axle, confining spools located upon the axle between the side frames and the wheels and adapted to receive elastic retaining means, and sleeves carried by the spools extending inwardly around the axle and attached thereto at points between the side frames and the center of the chassis.

1,416,748. ROLLER. FRANK R. PIPER, Fairfax, Ala. Filed Sept. 9, 1920. Serial No. 409,284. Renewed Jan. 4, 1922. Serial No. 527,051. 9 Claims. (Cl. 8—19.)



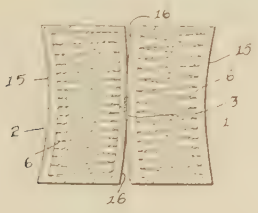
1. A roller for use in textile machines, consisting of a metal core or roller, and a removable covering for said roller, said roller having means for confining and retaining said covering in place.

1,416,749. TILTABLE REFLECTOR. HENRY T. PLATZ, Detroit, Mich., assignor to C. M. Hall Lamp Co., Detroit, Mich., a Corporation of Michigan. Filed Nov. 20, 1920. Serial No. 425,303. 3 Claims. (Cl. 240—41.)



1. In a lamp, the combination with an outer casing, of a reflector therein, a link connected to said reflector for tilting the same, trunnions mounted upon the inner walls of said casing forming a pivotal bearing for said reflector, a bearing engaging each trunnion having a forwardly extending threaded shank for engaging an aperture in a flange on said reflector, means for resisting rotation of said bearings, and a clamping nut for engaging said threaded shank.

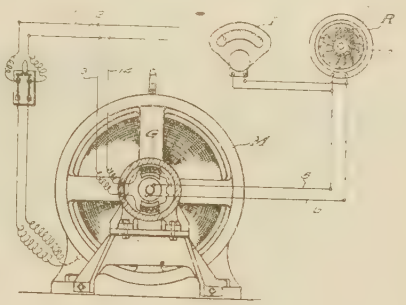
1,416,750. HEATER FOR WAVING HAIR. ZIVA POPIN, New York, N. Y. Filed May 17, 1919. Serial No. 297,764. 8 Claims. (Cl. 219—24.)



1. A heater comprising a pair of semi-cylindrical parts hinged together, each part being provided with a heating element, the free meeting edges of said parts being so constructed as to permit a layer of hair to pass therebetween.

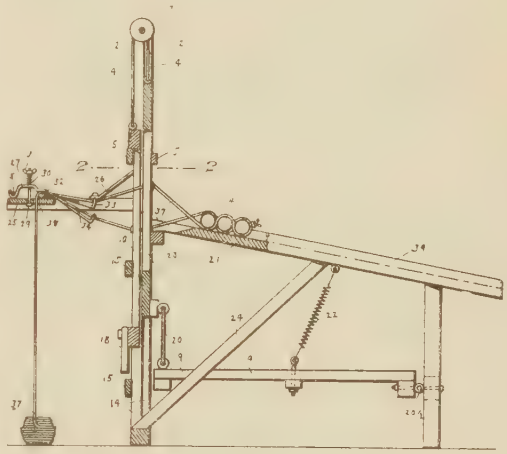
1,416,751. ELECTRICAL RECORDING APPARATUS. REECE WILMER PRESS and CHARLES WILLY SCHWENZFEIER, Glassboro, N. J., assignors to The Owens Bottle Company, Toledo, Ohio, a Corporation of Ohio. Filed Apr. 19, 1920. Serial No. 375,054. 4 Claims. (Cl. 234—1.5.)

1. The combination with a machine and driving means therefor, of an electric generator connected to be driven at a speed proportional to that of the machine, means for exciting the generator field from a constant potential source independent of the speed of said machine, and a recording indicator actuated by current supplied from



the generator and operative to produce a continuous record indicating the speed of the machine for all periods of its operation.

1,416,752. CORN STRINGER. CHARLES MARSH PUTNAM, Alma, Mich. Filed Oct. 24, 1921. Serial No. 510,172. 2 Claims. (Cl. 139—32.)

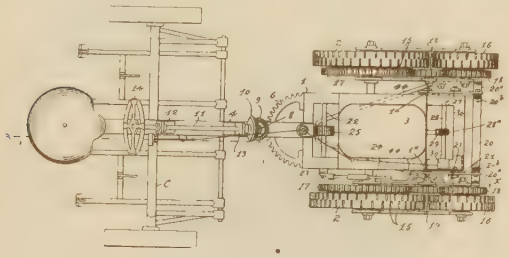


1. A corn stringer of the class described comprising an upstanding frame, complementary sliding frames mounted therein, a rope connecting said sliding frames, a pulley for supporting said rope mounted in said upstanding frame, a tension table attached to said upstanding frame provided with tension spring plates, bolts and springs, a slanting table opposite said tension table and attached to said upstanding frame, strings threaded through said tension means and passed through said sliding frames in pairs respectively, a treadle hinged to said slanting table and attached to one of said sliding frames and a weight attached to the other sliding frame whereby the movement of said treadle will alter the relation of said sliding frames and said weight upon the release of said treadle will return said sliding frames to normal position crossing and recrossing said pairs of string thereby stringing ears of seed corn in parallel relation.

1,416,753. TRACTOR. ALBERT D. RAY, Cleveland, Ohio. Filed May 16, 1921. Serial No. 469,838. 3 Claims. (Cl. 180—14.)

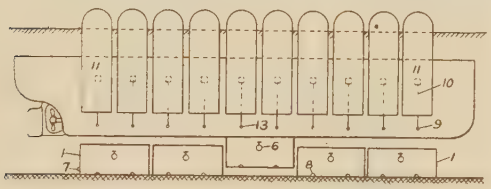
1. In a tractor, the combination of a supporting frame; a motor mounted on the frame; main traction wheels mounted on the frame and adapted to be driven by the motor, rocker arms journaled on the axis of the main

traction wheels and extending radially therefrom; auxiliary traction wheels journaled in said rocker arms; compound lever mechanism connected with the frame



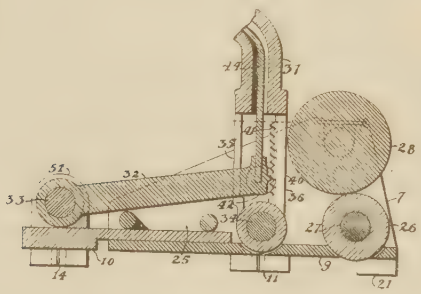
and the rocker arms for vertically oscillating said rocker arms; and means for actuating said lever mechanism, said means being operated by the motor.

1,416,754. DEVICE FOR RAISING SUNKEN VESSELS. JESSE W. RENO, New York, N. Y. Filed Mar. 17, 1921. Serial No. 453,108. 11 Claims. (Cl. 114—52.)



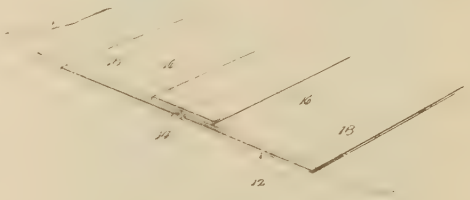
1. In the art of raising the deck of a sunken ship above the surface of the sea, the combination of buoyant pontoons, adapted to be secured to the ship, and raise, and suspend it in the sea, and an element adapted to be placed against the bottom of the suspended ship, and have the buoyant pontoons detached from the ship and attached to the said element, to enable the buoyant force of the pontoons to raise the deck of the ship above the surface of the sea.

1,416,755. CAR PUSHER. BENJAMIN FRANKLIN SCHMIDT and TRIPHON D. HEYL, Los Angeles, Calif. Filed Jan. 17, 1921. Serial No. 437,777. 9 Claims. (Cl. 254—35.)



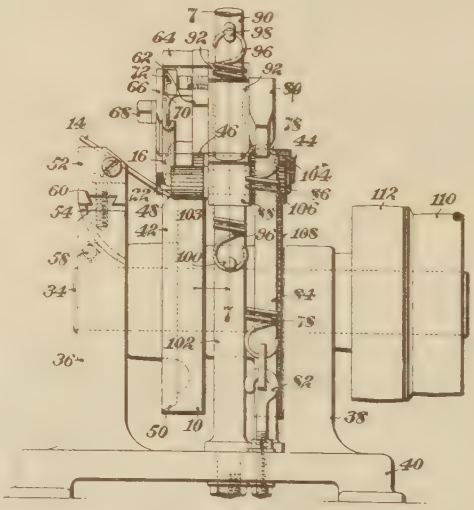
1. In a car pusher, the combination of a divided shoe having a front and rear portion each adapted to slide forward on a track rail, means on either portion of said shoe to prevent retrograde movement on the track rail, a roller rotatably mounted on the front portion of said divided shoe and adapted to frictionally engage the rail and be rotated thereby when said front portion of said shoe advances, another roller rotatably mounted on said front portion of said shoe adapted to be rotated by said first roller and further adapted to frictionally engage a car wheel and to tend to rotate it, a lever pivotally mounted to said front portion of said shoe, a rigid link engaging said rear portion of said shoe and said lever, whereby the downward movement of said lever will cause said front portion of said shoe to advance on the rail imparting a rotation to said rollers to assist in rotating the car wheel.

1,416,756. FASTENING DEVICE. HENRY A. SCHMIDT, Phoebus, Va. Filed Dec. 7, 1921. Serial No. 520,608. 2 Claims. (Cl. 16—16.)



2. A fastening for floor coverings consisting of a pair of base plates, upwardly extending portions formed along the adjacent edges of said base plates, and laterally directed flanges formed at the upper edges of said upwardly extending portions and cooperating with the base plates in defining a pair of grooves for the reception of the meeting of a floor covering, said laterally directed flanges consisting of upper and lower layers having their outer edges joined.

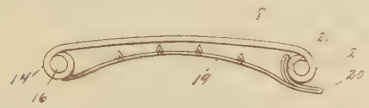
1,416,757. WELT GROOVING AND BEVELING MACHINE. THOMAS H. SEELY, Dorchester, and RALPH C. SIMMONS, Beverly, Mass., assignors, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 27, 1916. Serial No. 93,888. Renewed June 19, 1919. Serial No. 305,394. 13 Claims. (Cl. 12—67.)



1. A machine for operating on welting having, in combination, a support for a welt, guides for positioning the welt on the support with its inner edge projecting over the end of the support, a feed roll co-operating with the support and extending across the inner edge of the welt, and a beveling knife projecting under the support to operate on the inner edge of the welt under the feed roll.

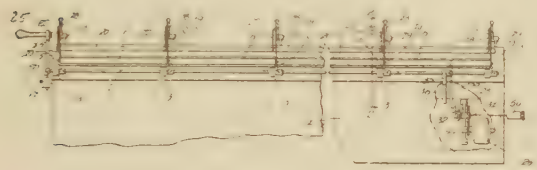
4. A machine for preparing welting having, in combination, a supporting roll having a beveled flange, a feed roll co-operating with the supporting roll, a beveling knife projecting under the beveled flange of the supporting roll, and means to permit adjustment of the knife to different angular positions about the edge of the beveled flange as an axis to vary the angle of the bevel cut.

1,416,758. LINGERIE CLASP. CHARLES SILVERMAN, Providence, R. I. Filed Dec. 31, 1921. Serial No. 526,210. 4 Claims. (Cl. 24—248.)



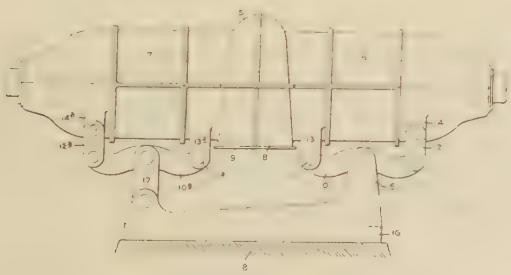
1. A lingerie clasp comprising a rigid jaw, and a resilient jaw, a loop on the free end of the rigid jaw, and an inwardly and upwardly directed lug carried by the resilient jaw adapted to engage the rear side of the loop.

1,416,759. MUSIC-ROLL-PRINTING MACHINE. TOM H. SPENCE and JULIUS A. TURNELL, Chicago, Ill., assignors to Q. R. S. Music Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 8, 1920. Serial No. 429,138. 10 Claims. (Cl. 101—97.)



1. In a machine for the purpose indicated, in combination with a table on which the strips to be printed may be extended, a rock shaft extending along the length of the table; a multiplicity of printing-block-holders and printing blocks carried thereby; means operatively connected to the rock shaft for giving the holders movement in planes transverse to the shaft and both parallel to and transverse to the planes of the printing faces of the blocks; said means being with respect to each holder, a lever member on the rock shaft which extends therefrom for swinging through an arc above the shaft extending both sides of the vertical plane of the latter, whereby its outer end moves downward at both limits of the swing, and a controlling arm connected at one end with the lever member and means for guiding the other end in a path approximately parallel to the strip-supporting surface of the table.

1,416,760. ELASTIC-FLUID TURBINE OR TURBINE-DRIVEN UNIT. CHRISTIAN STEENSTRUP, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed July 3, 1920. Serial No. 393,932. 5 Claims. (Cl. 253—39.)

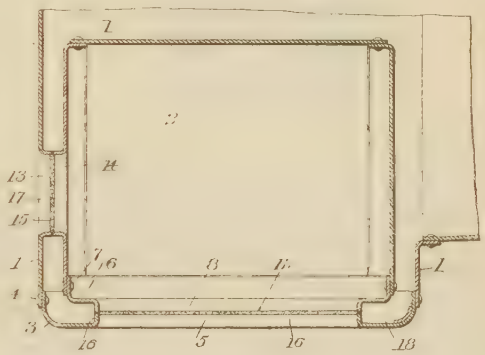


1. In combination, a unit which when in operation is subject to changes in temperature, a bed, and means comprising axially extending levers which support the unit on the bed, said means permitting the unit to expand axially due to temperature changes.

1,416,761. STORAGE-BATTERY SEPARATOR. GODFREY STEERUP, Chicago, Ill., assignor to U. S. Light & Heat Corporation, Niagara Falls, N. Y., a Corporation of New York. Filed Aug. 11, 1919. Serial No. 316,832. 7 Claims. (Cl. 204—29.)

1. The method of preparing storage battery separators which consists of making a mass of non conducting material interspersed with electrical conductors, applying an electrical current to said conductors to fuse said mass into a coherent block, said mass being provided with a substance which will gasify under the influence of the electric current.

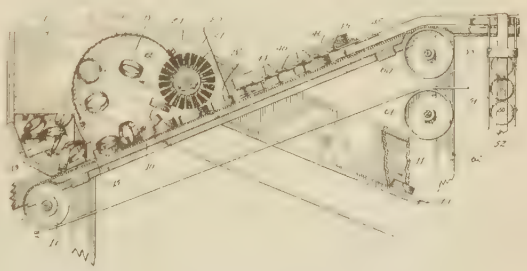
1,416,762. MUD RING FOR BOILERS AND METHOD OF APPLYING SAME. FREDERICK C. STIMMEL, Chattanooga, Tenn., assignor to The Casey-Hedges Co., a Corporation of Tennessee. Filed May 23, 1921. Serial No. 471,571. 6 Claims. (Cl. 122—369.)



1. A mud ring made in two sections for independent attachment, respectively, to the firebox and casing of a boiler, said sections having vertical flanges to be subsequently connected together for completing said mud ring.

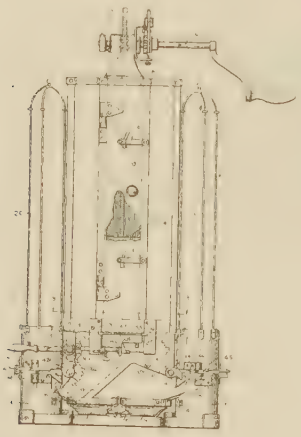
5. The method of applying a mud ring to a boiler which consists in forming said mud ring in two sections, attaching one section to the firebox of a boiler before it is placed in the casing of said boiler, attaching the other section of the mud ring to the boiler casing after said firebox has been inserted therein, and finally uniting said sections.

1,416,763. MECHANISM FOR ARRANGING AND FEEDING CYLINDRICAL BOX BODIES. JAMES C. THOM, Chicago, Ill., assignor to Combination Machine Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 10, 1920. Serial No. 429,674. 10 Claims. (Cl. 198—29.)



1. Handling and arranging mechanism for annular box bodies, comprising a conveyor, means adjacent to the conveyor for separating articles into plural row arrangement, a discharge opening for surplus articles anterior to the separating means, and position rectifying means in advance of the separating means and discharge opening.

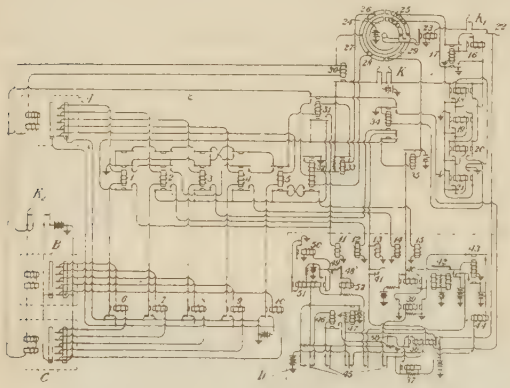
1,416,764. FOOD-DISPENSING APPARATUS. CHARLES J. VANN, Brooklyn, N. Y. Filed Jan. 13, 1916. Serial No. 71,926. 2 Claims. (Cl. 31—65.)



1. In an automatic butter feeding machine, means for feeding several columns of butter simultaneously, means for cutting off a chip from each of said columns simultaneously, means for feeding plates beneath said chips as cut for receiving a chip upon each plate, and means for discharging said plates with said chips thereupon.

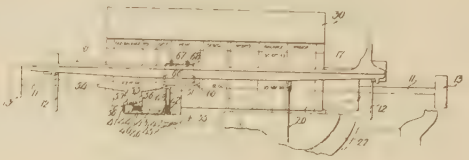
2. In an automatic butter feeding machine, means for feeding several columns of butter mechanically without changing the outer contour of said columns and in combination therewith means for cutting chips therefrom.

1,416,765. CIPHERING DEVICE. GILBERT S. VERNAM, Brooklyn, N. Y., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed July 23, 1920. Serial No. 398,358. 10 Claims. (Cl. 178—22.)



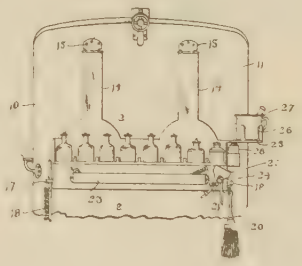
1. The combination of a plurality of selecting means upon which may be set up code combinations representing message characters or "stunt" signals, a printer associated with said selecting means and normally adapted to print the characters of said code combinations and to operate in accordance with said "stunt" signals, and relay means associated with said selecting means and said printer, said relay means being operative whenever a code combination representing a "stunt" signal in set up on said selecting means, and said relay means when operated preventing said printer from operating normally in accordance with said "stunt" signals and causing said printer to give a printed indication of said "stunt" signals.

1,416,766. COMBINED TYPEWRITING AND COMPUTING MACHINE. HARRY H. VICKERS, Corona, N. Y., assignor to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Jan. 24, 1921. Serial No. 439,365. 11 Claims. (Cl. 235—60.)



1. In a combined typewriting and computing machine having a computing register and a proving register, and comprising a carriage having a platen journaled therein and around which a ledger-sheet is adapted to be fed, said ledger-sheet having an "old balance" column adjacent the left side edge thereof, a "balance" column near the right side edge, and a "proof" column adjacent the "balance" column, the amount in said "balance" column at the beginning of a computation being adapted to be copied into said "old balance" column and run into said computing and proving registers, the same amount being adapted to be copied into said "proof" column and subtracted out of the proving register to ascertain whether the amount in the "old balance" column was correctly copied at the beginning of the computation, a screen mounted on said machine and normally in ineffective position but adapted to be rendered effective to blind the amount in the "old balance" column when the "proof" column is in position to be typed, so that the amount typed in the "proof" column and subtracted from the proving register will be copied from the original "balance" column to avoid carrying over any mistake which might have been made in copying the amount into the "old balance" column.

1,416,767. RECEPTACLE FOR BARBERS' EQUIPMENT. GEORGE D. VOUGHT, Mount Union, Pa. Filed Jan. 28, 1921. Serial No. 440,736. 1 Claim. (Cl. 211—14.)



A device of the class described comprising an elongated box-like shelf provided with a relatively high rear wall and having a relatively low front wall, a substantially V-shaped longitudinal projection extending from the front wall of said receptacle, a pair of spaced extension members having flared lower ends extending from the upper edge of the rear wall of said shelf and a spacing rack removably disposed in said shelf.

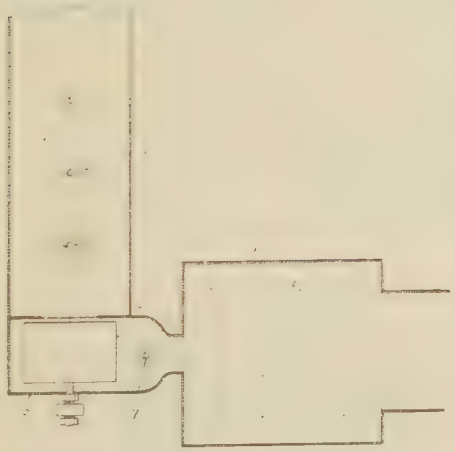
1,416,768. GRAB. JOHN MORECRAFT WELLINGTON and DUNCAN GORDON MACKENZIE, Ilford, England. Filed Feb. 27, 1920. Serial No. 361,754. 3 Claims. (Cl. 37—30.)

1. A grab, comprising, in combination, an opening ring loosely supported above said grab, a suspending hook pivotally connected with the grab and adapted to engage

said opening ring, and cooperating means carried by the grab and said suspending hook for positively controlling

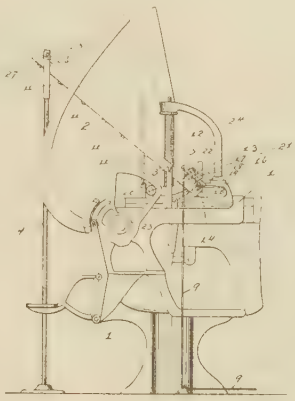
from the grab the angular position of said suspending hook with respect to the center line of the grab, thereby to permit opening and closing of said grab.

1,416,769. PROCESS AND APPARATUS FOR SEPARATION OF SUSPENDED MATERIAL FROM GASES. EDSON R. WOLCOTT, Los Angeles, Calif., assignor to International Precipitation Company, Los Angeles, Calif., a Corporation of California. Filed June 30, 1919. Serial No. 307,611. 8 Claims. (Cl. 183—7.)



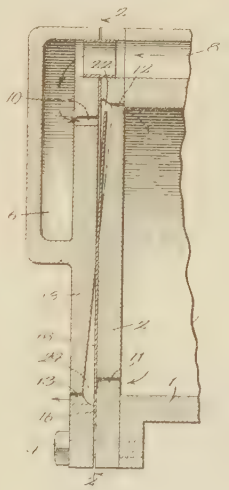
1. The process of removing solid suspended material from gases, which consists in humidifying the gases, cooling the gases sufficiently to cause the particles to become wet by moisture condensed on the particles from the gases, and then subjecting the gases to the action of an alternating electric field to cause agglomeration and precipitation of the suspended particles.

1,416,770. METAL FEEDER FOR TYPOGRAPHICAL MACHINES. WAYNE P. ZENT, Troy, N. Y. Filed July 21, 1919. Serial No. 312,432. 1 Claim. (Cl. 22—80.)



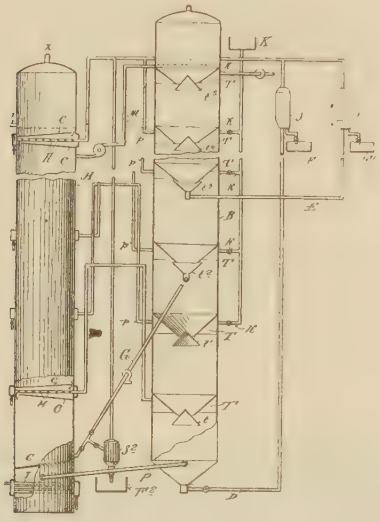
In an ingot-feeding mechanism, the combination with a movable melting-pot; of an ingot-chute rockable upon a horizontal axis arranged to be rocked by movement of the melting-pot while permitting movement of translation of the melting-pot relatively to the chute.

1,416,771. VALVE. HENRY B. BABSON and JACOB J. STAMPEN, Chicago, Ill. Filed Aug. 18, 1920. Serial No. 404,413. 3 Claims. (Cl. 251—123.)



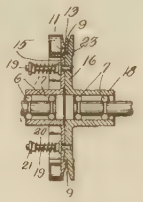
1. A valve structure having a flat valve seat having ports arranged in an arc, a thin, resilient plate the peripheral portion whereof is a ring severed from the internal portion except at a diametral zone, said internal portion being adapted to cover and uncover the ports by moving toward and from them in a direction substantially normal to the surface of the plate, and means for holding the peripheral portion of the plate in close contact with the valve seat, the internal portion being also partially severed from the diametral zone by slotted apertures running radially inward partway from the peripheral portion, to increase the flexibility.

1,416,772. PROCESS OF RECOVERING AMMONIUM CHLORIDE FROM SOLUTION. NATHANIEL T. BACON, Peace Dale, R. I., assignor to The Solvay Process Company, Solvay, N. Y., a Corporation of New York. Filed Dec. 27, 1919. Serial No. 347,832. 8 Claims. (Cl. 23—13.)



7. The improvement in the process of recovering ammonium chloride from solution which consists in evaporating the solution so as to precipitate ammonium chloride and at the same time maintaining free ammonia in the solution.

1,416,773. WELT-MOISTENING MACHINE. PERLEY E. BARBOUR and HARRY LYON, Brockton, Mass., assignors to Brockton Rand Company, a Firm composed of John A. Barbour and Perley E. Barbour, Brockton, Mass. Filed Nov. 20, 1920. Serial No. 425,404. 12 Claims. (Cl. 91—56.)

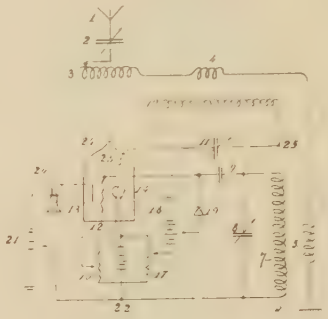


1. A welt moistening machine comprising a wheel having a channel in its periphery adapted to receive a welt strip edgewise, and means for so mounting said wheel that its lower part dips into a body of liquid, the wheel having also means additional to the walls of said channel for transferring liquid from such body to the welting traveling in said channel.

10. A welt moistening wheel having in its periphery a groove or channel arranged and adapted to admit a traveling welt strip edgewise, buckets on the outer side of the wheel, holes passing from said buckets to the nearer bounding side wall of the groove, and an annular groove in said side wall between the series of holes and the bottom of the groove.

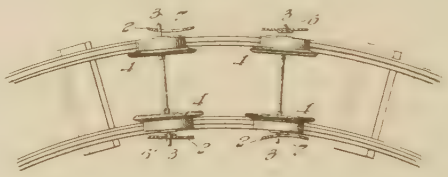
1,416,774. DEVICE FOR RECEIVING RADIOSIGNALS. CESARE BARDELONI, Rome, Italy. Filed Apr. 17, 1920. Serial No. 374,709. 7 Claims. (Cl. 250—20.)

1. A device for receiving radiotelegraphic and radiotelephonic signals, comprising an aerial, an adjustable main oscillating circuit containing a lamp with a hot filament as cathode, a grid, and a plate, said circuit being suitably coupled to the aerial, and connected at one side to the grid and on the other side to the hot cathode of the lamp, a rectifier of variable currents connected to said circuit on the same side as the grid and hot cathode



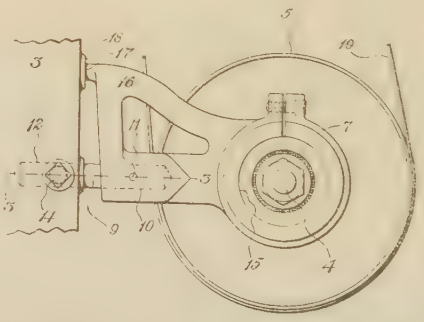
of the lamp, a receiving telephone in circuit with the plate of the lamp, and an auxiliary oscillating system which is also adjustable and suitably coupled with the aerial, said system comprising means so located relatively to the lamp that the oscillations of said system influence the electron stream of the lamp.

1,416,775. TOY CAR. FREDERICK C. BAUER, Philadelphia, Pa. Filed Jan. 14, 1922. Serial No. 529,168. 2 Claims. (Cl. 105—165.)



1. In a toy car, a body, wheels, an axle for said wheels, and opposite pedestals on said body, one of said pedestals having therein a cylindrical opening for one end of the axle mounted rotatably therein, and the other pedestal having therein a horizontally extending elongated slot in which the other end of said axis is both rotatably and slidingly mounted.

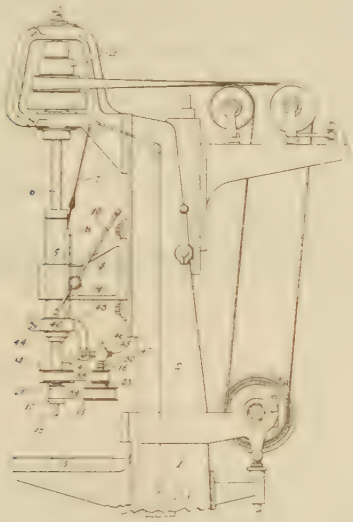
1,416,776. SUPPORTING MEANS FOR SHAFT BEARINGS. WILLIAM J. BAYRER, Hartford, Conn.; Homer H. Bayrer, being administrator of said William J. Bayrer, deceased, assignor to Robert G. Henry, West Hartford, Conn. Filed Sept. 18, 1919. Serial No. 324,629. 5 Claims. (Cl. 64—14.)



1. In combination, a support, a bracket having an opening to receive a bearing, a stud associated with the bracket and adapted for endwise and rotary adjustment in a socket for the support, a projection on the bracket adapted to engage the support to locate the bracket in the length-

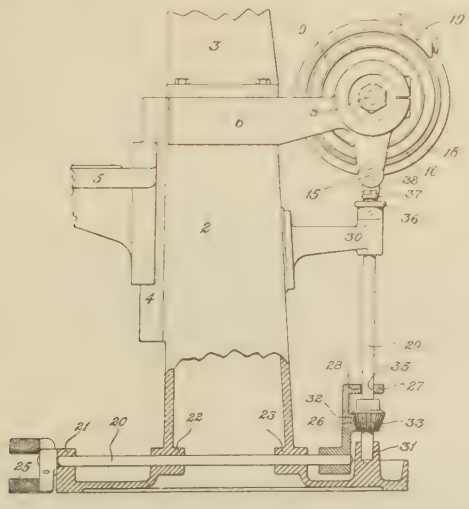
wise direction of the stud, and means for securing the stud in the support to hold the bracket in alignment with a predetermined alignment of a shaft bearing extending thereinto.

1,416,777. DRILLING MACHINE. WILLIAM J. BAYRER, Hartford, Conn.; Homer H. Bayrer, being administrator of said William J. Bayrer, deceased, assignor to Robert G. Henry, West Hartford, Conn. Filed Sept. 18, 1919. Serial No. 324,630. 3 Claims. (Cl. 77—55.)



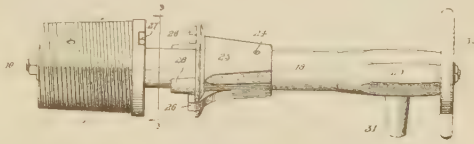
1. In a drilling machine, in combination, a support, a non-rotative longitudinally movable sleeve carried by the support, a rotary spindle extending through and movable with the sleeve, a tool carrier rotatably mounted on the spindle, and spindle driven means supported by the sleeve and adapted to drive the tool carrier.

1,416,778. BELT-SHIFTING MECHANISM. WILLIAM J. BAYRER, Hartford, Conn.; Homer H. Bayrer, being administrator of said William J. Bayrer, deceased, assignor to Robert G. Henry, West Hartford, Conn. Filed Sept. 18, 1919. Serial No. 324,632. 3 Claims. (Cl. 74—7.)



1. In combination, a shaft, a segment on the shaft provided with a slot, a gear, and a shaft for the gear extending through the slot in the segment to effect a relative location of the segment and gear.

1,416,779. FAUCET FOR BARRELS. LOUIS BEDNAR, Westville, and JOHN JASUS, Catlin, Ill. Filed Feb. 4, 1922. Serial No. 534,210. 6 Claims. (Cl. 225—2.)

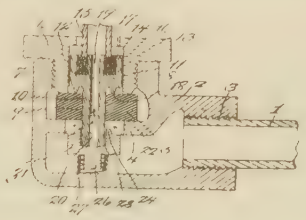


1. A combination with a barrel bung having an externally threaded cup-shaped casing and a revoluble valve member of cup shape fitted therein, the valve member and the casing having adjacent end walls provided with outlet openings adapted to be registered, an outlet pipe having its inner end formed to detachably engage said valve member and having a valve upon its outer end, and means carried by said outlet pipe engageable with and releasable from said bung casing whereby rotation of the outlet pipe may be transmitted to said bung casing for threading the latter into a barrel opening, said outlet pipe having openings adapted to register with the openings of the bung casing and barrel.

1,416,780. MUTE FOR STRINGED INSTRUMENTS. CHARLES B. BERGEN, Washington, D. C. Filed Aug. 25, 1921. Serial No. 495,246. 4 Claims. (Cl. 84—310.)

1. The combination with a musical instrument having strings and a bridge, of a mute comprising a body portion, a flat spring for holding said body portion in sliding contact with certain of the strings and a spring clip integral with said flat spring for removably holding said body portion in contact with said bridge.

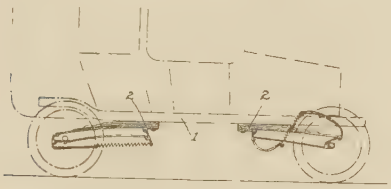
1,416,781. INFLATING COUPLING. EDWARD C. BEVINS, Cleveland, Ohio. Filed Sept. 20, 1920. Serial No. 411,396. 2 Claims. (Cl. 284—19.)



1. In an inflating coupling, a casing having a valve chamber and provided with inlet and outlet ends, a pliable washer clamped in said chamber and having a central opening, an auxiliary valve mounted in the inlet end of said chamber and adapted to normally engage one face of the washer, means for holding the auxiliary valve against the washer, a main valve mounted for movement in the outlet end of said chamber and having a tubular extension guided by said opening through the washer and engaging into the auxiliary valve, whereby upon depressing the main valve the auxiliary valve will disengage from said washer, the tubular extension of the main valve ter-

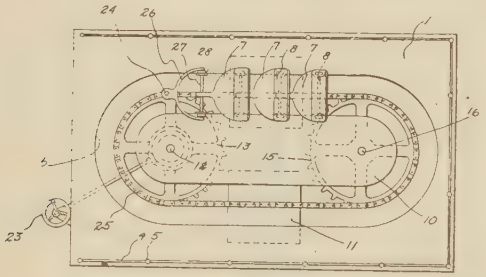
minating in a transverse slot communicating with the passage through the tubular extension, said slot adapted to normally position in the opening through the washer when the auxiliary valve is closed, and to position below the washer when the auxiliary valve disengages from the washer, to thereby open communication through said casing, and means for limiting the main valve in its movement in one direction when said main valve is allowed to assume its normal position.

1,416,782. SHOCK ABSORBER. ALDEN BLOSSOM, Newton Square, Pa. Filed Dec. 14, 1921. Serial No. 522,334. 3 Claims. (Cl. 267—17.)



1. In a shock absorber, the combination with a leaf spring, of a vehicle, of an axle, a spring bar connected to the axle, a spring bar connecting the rear end of the first spring bar and the fixed portion of the leaf spring, an additional spring bar connecting the forward end of the leaf spring and the first spring bar, and yieldable means connecting the additional spring bar and the lower end of the second spring bar, the construction and arrangement of said yieldable means being such as to absorb the shock incident to the front wheels of the vehicle coming in contact with an obstruction.

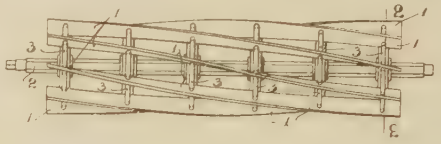
1,416,783. AMUSEMENT DEVICE. MICHAEL A. BRUNO, Brooklyn, N. Y. Filed Mar. 14, 1922. Serial No. 543,675. 3 Claims. (Cl. 104—53.)



1. A device of the class described comprising a wheeled platform body having an opening therein, a central platform secured in said opening, a series of cars tractionally mounted on a runway formed by the platform members, a pair of large sprocket wheels rotatably mounted beneath the central platform and at the forward and rear ends thereof, a bevel gear mounted beneath the forward sprocket wheel, an endless sprocket chain engaging and encircling both sprocket wheels and adapted to linear travel when said sprocket wheels are rotated, means driving the forward sprocket wheel and means for releasably coupling the cars to each other.

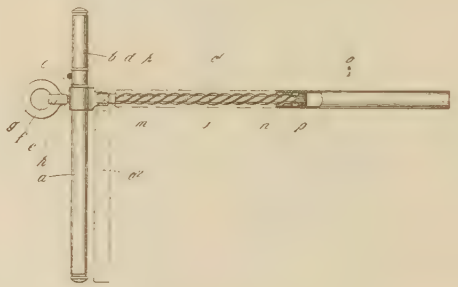
1,416,784. LAWN MOWER AND THE LIKE. GEORGE F. BULL, Birmingham, England, assignor of one-half to Charles H. Pugh, Limited, Birmingham, England. Filed July 8, 1921. Serial No. 483,126. 4 Claims. (Cl. 56—294.)

1. A lawn mower comprising a number of revolving cutter-blades, spacing discs carrying the said blades and having slots therein with which the blades are engaged, and means for securing the blades in the slots, the said means consisting of the metal of the discs adjacent the



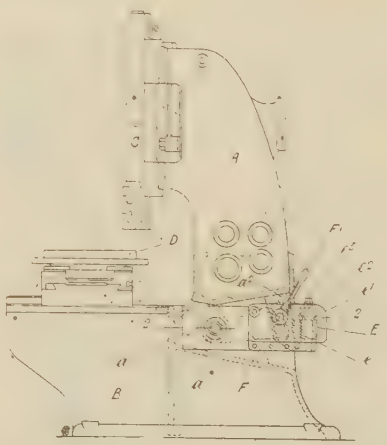
slots displaced against the sides of the blades so as to hold the latter securely and firmly in position.

1,416,785. CASE FOR CLINICAL THERMOMETERS. JOSEPH TOMSON BURDEN, London, England. Filed Feb. 12, 1921. Serial No. 444,319. 6 Claims. (Cl. 73—52.)



1. A clinical thermometer case having an Archimedean screw and a finger grip pivotally secured one on each side of said case, said screw being adapted to be folded to lie alongside said case or to be extended at right angles thereto whilst said finger grip is pivoted to said case coaxially with the screw when the latter is disposed at a right angle to said case to permit rotation of said case relatively to said finger grip and a sleeve nut threaded on said screw, said sleeve nut being adapted to be reciprocated relatively to said screw.

1,416,786. SLOTTING, SHAPING, MILLING, DRILLING, AND OTHER LIKE MACHINE TOOLS. HAROLD BUTLER, HERBERT BUTLER, RICHARD HENRY HAYHURST, and WILFRED ALDERSON, Halifax, England. Filed Aug. 23, 1920. Serial No. 405,299. 2 Claims. (Cl. 90—43.)



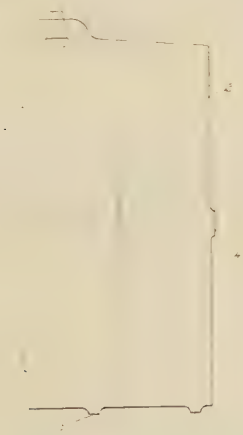
1. In a vertical shaping machine, an upper frame part hinged to a lower frame part, the said upper frame part having faced surfaces fitting accurately between faced surfaces on the lower part, a worm sector mounted on the upper part, a worm mounted on the lower part and gearing with the worm sector, means for actuating the worm,

means for indicating the angle to which the upper part has been moved and a draw bolt for securing the upper part in any adjusted position.

1,416,787. METHOD OF PREPARING PASTE. CAMPBELL C. CARPENTER, Niagara Falls, N. Y., assignor to U. S. Light & Heat Corporation, Niagara Falls, N. Y., a Corporation of New York. Filed Apr. 19, 1920. Serial No. 374,870. 1 Claim. (Cl. 204—29.)

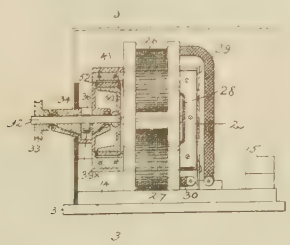
The method of preparing paste which consists in providing sponge lead, grinding same to a definite fineness and treating same with sulphuric acid, controlling the ratio of sulphuric acid and sponge lead, whereby to control the proportions of sponge lead and lead sulphate in the resulting product.

1,416,788. STORAGE-BATTERY PLATE. CAMPBELL C. CARPENTER, Niagara Falls, N. Y., assignor to U. S. Light & Heat Corporation, Niagara Falls, N. Y., a Corporation of New York. Filed Aug. 3, 1917, Serial No. 184,219. Renewed May 19, 1920. Serial No. 382,644. 17 Claims. (Cl. 204—29.)



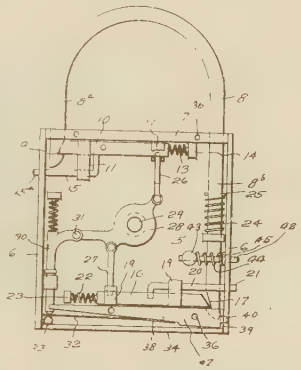
1. In combination, a battery jar, battery plates in said jar, the general outline of said plates being less in width than the corresponding dimension of the inside of said jar, each of said plates being provided with wall abutting projections on its side edges adjacent the side walls of said jar, whereby to prevent lateral shifting of said plates within said jar.

1,416,789. MAGNETO GENERATOR. WILLIAM . . CHAPMAN, Portland, Me. Filed May 5, 1919. Serial No. 294,773. 4 Claims. (Cl. 171—209.)



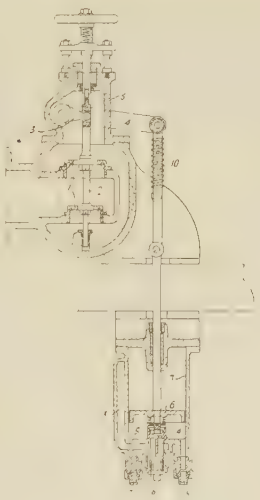
1. In a magneto generator, the combination of a shaft, a rotor on the end of said shaft having sectors on its periphery, a frame having a bearing for said shaft at one side of said rotor with a socket above and a socket below the rotor and laterally projecting lugs adjacent to said socket on each side, an induction coil core secured in each of said sockets, an upright pole piece secured to each of said lugs, coils on said cores, a yoke connecting their rear ends and a horse shoe magnet secured in a horizontal position to contact with the outer surfaces of said pole pieces, said poles and pole pieces conforming closely to the circular path of the outer surfaces of said sectors.

1,416,790. SECRET-COMBINATION LOCK. JOSEPH CIOTOLA and DOMINICK POLIDORO, Philadelphia, Pa. Filed Nov. 7, 1921. Serial No. 513,433. 5 Claims. (Cl. 70—108.)



2. A lock of the character described comprising a locking element, a plurality of latches for holding said locking element in closed position, detents engaging said latches and preventing their movement until withdrawn from engagement therewith and a movable casing section accessible from the exterior of the lock and connected to one of said detents to simultaneously operate them upon movement of the casing section to cause their withdrawal from engagement with the latches.

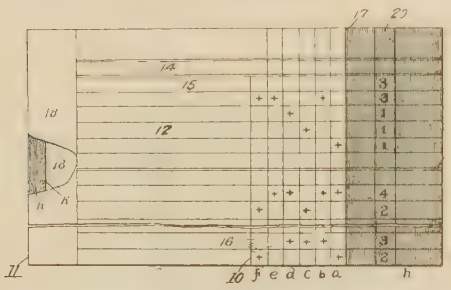
1,416,791. ENGINE STOP GEAR. DAVID COCKBURN and DONALD MACNICOLL, Cardonald, near Glasgow, Scotland. Filed Feb. 3, 1920. Serial No. 355,924. 1 Claim. (Cl. 137—153.)



In an engine stop gear, in combination, an emergency valve, a load tending to close said emergency valve, a chamber having at its lower end a connection for admission of fluid, and also having an overflow, a piston movable in said chamber, said piston operatively connected to said valve and normally held raised in opposition to said load

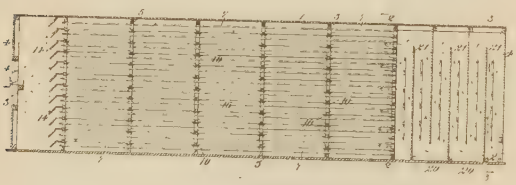
by pressure of liquid on the underside of said piston, a by-pass between the ends of said chamber, a by-pass valve at the lower end of said chamber controlling said by-pass and adapted to be closed by pressure of liquid in said chamber, a spring interposed between said piston and said by-pass valve, and a spring tending to open said by-pass valve on failure of liquid pressure on the underside of said piston.

1,416,792. BALLOT TALLY SHEET. RICHARD GARRETT COTTER, Sausalito, Calif. Filed Feb. 23, 1918. Serial No. 218,878. 3 Claims. (Cl. 283—5.)



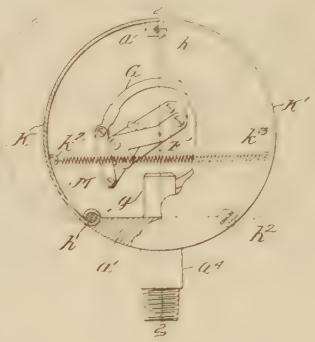
1. The herein described election ballot having two or more vertical columns of spaces for the names of candidates or propositions to be voted upon, each column being somewhat narrower than the adjacent column at the left and one or more columns of voting squares adjacent the lateral right hand edge of each column of spaces for names of candidates or propositions, said ballot being provided along the left hand edge with a suitable vertical space for fastening means, substantially as and for the purposes set forth.

1,416,793. DEHYDRATING APPARATUS. JOSEPH D. COX, Healdsburg, Calif. Filed Oct. 25, 1921. Serial No. 510,327. 5 Claims. (Cl. 34—39.)



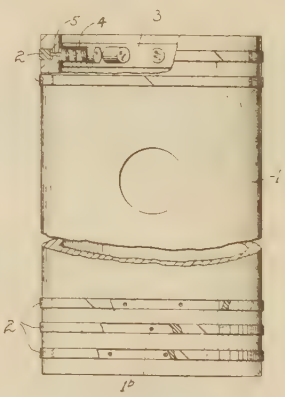
3. A dehydrating apparatus comprising a housing, a plurality of parallel spaced horizontally apertured supporting walls extending transversely thereof for its full width and vertically thereof for its full height, with the apertures of adjacent walls in register throughout the length of said housing providing a plurality of tray receiving compartments, a door for closing one end of each compartment, a plurality of parallel spaced heating elements extending longitudinally of the housing through said aligned wall apertures and transversely of each compartment, a tray guide on each compartment side wall between adjacent superimposed heating elements and extending transversely thereof providing a plurality of tray receiving racks in vertical spaced relation in each compartment, a plurality of open topped trays each of a length and width corresponding to that of one of said compartments and one adapted for removably positioning on each rack dividing said compartment longitudinally in a horizontal plane into a plurality of chambers communicating with each other through said wall apertures and each containing a heating element between the chamber forming trays, a fan at one end of the housing for creating an air circulation longitudinally therethrough, an air preheating chamber at the other end of said housing, and a valve for controlling the passage of air through each chamber.

1,416,794. PRESSURE GAUGE. ARTHUR E. CUTLER, Somerville, Mass., assignor to The Ashton Valve Company, Boston, Mass., a Corporation of Massachusetts. Filed Oct. 12, 1916. Serial No. 125,298. 7 Claims. (Cl. 73—109.)



1. A pressure gauge casing having a front wall; a rear wall; and two members movable relatively to each other to provide an outlet intermediate of said walls while the latter are in their normal position, and a spring connecting said members to hold them normally closed.

1,416,795. PISTON. DOLPH B. CRAWFORD, Chicago, Ill. Filed Aug. 16, 1920. Serial No. 403,784. 5 Claims. (Cl. 74—108.)

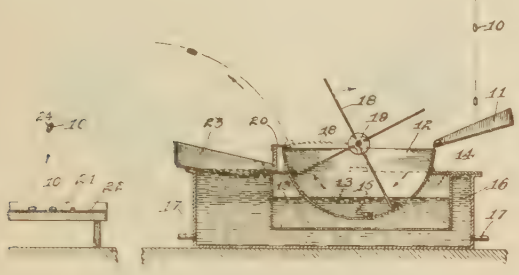


1. The combination with the piston of an internal combustion engine and a piston ring, of means attachable to the piston for holding a plurality of spring-held plungers, said plungers confined within the piston when the device is assembled and extending through the piston wall in order to exert pressure against said piston ring.

1,416,796. COATING PROCESS AND APPARATUS. CHARLES T. DAVIS, New York, N. Y. Filed May 12, 1920. Serial No. 380,816. 10 Claims. (Cl. 91—68.)

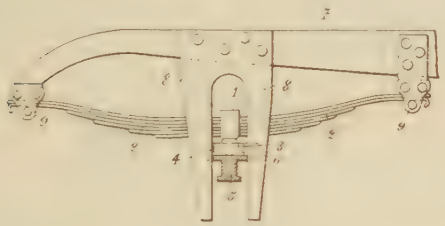
2. A coating process, including the application to pills and like articles of coating material in liquid form, and the subsequent forcible projection of the articles through

a gaseous hardening fluid while unsupported except by same fluid.



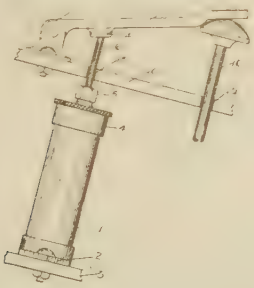
6. A coating apparatus, including means for applying a fluid coating to the surface of an article, and means for forcibly projecting the coated article through space.

1,416,797. SUSPENSION MEANS FOR MOTOR CARS. ALBERT DESCHAMPS, Paris, France. Filed Aug. 18, 1919. Serial No. 318,403. 3 Claims. (Cl. 267—52.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



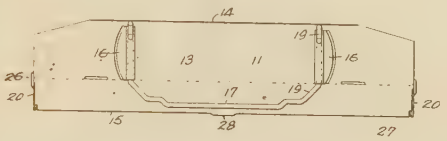
3. A spring suspension for motor cars comprising a leaf spring, means for holding the leaves of said spring together, a spherical surface joint arranged to connect the spring with the axle of the car and allowing universal motion of the spring, an extension connected with said joint, and a guide secured to the car frame and in sliding engagement with said extension, and means arranged to connect the ends of the spring with said frame.

1,416,798. FOOT THROTTLE CONTROL. CHARLES A. DESCHNER, Portland, Oreg. Filed Sept. 29, 1921. Serial No. 504,038. 2 Claims. (Cl. 74—81.)



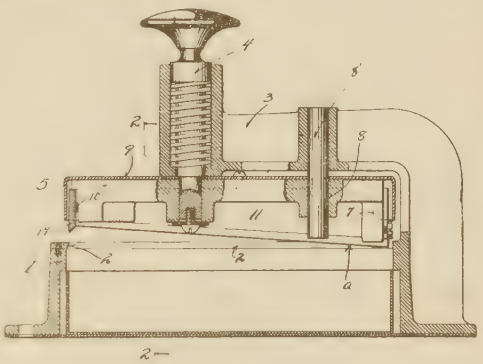
1. In combination with a foot throttle, an oil-governed spring control comprising a cylinder closed at each end, a packing nut through which a piston rod passes and has attached to the end within the cylinder, a piston head, said piston head having an opening therein through which the oil within the cylinder can pass, a coil spring installed within the cylinder and on the opposite side of the piston head from the piston rod, a pedal so installed as to fall in contact with the end of the piston rod and the foot throttle, so that the control and foot throttle will both be operated by the pressure of one foot of the vehicle driver and prevent the uneven opening and closing of the throttle valve which is caused by driving the car over uneven ground.

1,416,799. HOLDER FOR PENCILS AND THE LIKE. MAXIMILIAN DESROCHERS, Montreal, Quebec, Canada. Filed Jan. 22, 1921. Serial No. 439,198. 10 Claims. (Cl. 197—180.)



1. A device of the class described comprising a pair of parts each having a circularly curved wall, said parts being pivoted together to hold the curved walls in sliding relation to one another, stops engageable with the edges of said curved walls to limit the movement of the parts, and a clip carried by one of the parts adapted to attach the receptacle to a typewriter frame.

1,416,800. COUPON-CUTTING DEVICE. HENRY DETJEN, Manitowoc, Wis. Filed Dec. 21, 1920. Serial No. 432,213. 4 Claims. (Cl. 164—47.)



1. In a cutting machine having a reciprocative head, a base provided with a rectangular shearing-surface: the combination of a pair of rectangularly positioned blades carried by the head having their shearing edges obliquely disposed with relation to the base shearing-surface, the heels only of which blades normally engage said shearing-surface, spring means for normally separating the toes of the aforesaid blades whereby the lower cutting edges thereof overlap the rectangular shearing-surfaces of the base, and whereby the knives, when cutting progressively sever from heel to toe and simultaneously contract, causing the toe portions to come together to form an unbroken corner cutting surface, in the completion of the cutting stroke of the blades.

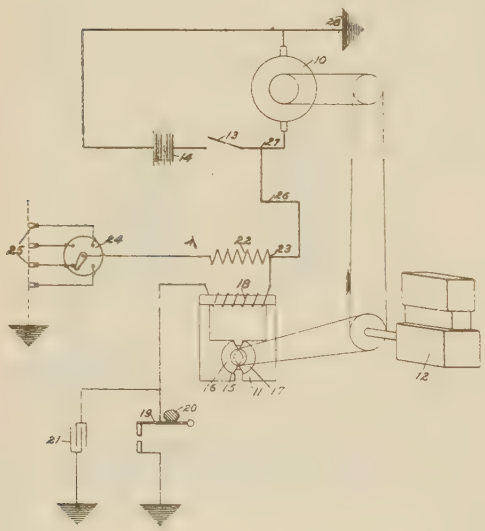
1,416,801. PROCESS OF MAKING BUTTONHOLES. WALTER DUESLER, Johnstown, N. Y., assignor to Diana Knitting Company, Johnstown, N. Y., a Corporation of New York. Filed Sept. 26, 1921. Serial No. 503,161. 6 Claims. (Cl. 112—264.)

1. The herein described method of forming and reinforcing a button hole, which consists in placing upon one face of a base material in which the button hole is to be formed, a reinforcing stay of substantially twice the width of the bights of stitching to be formed around the button hole aperture, the stay being located longitudi-

nally of and extending on opposite sides of the longitudinal axis of the button hole, and forming a row of stitches on opposite sides of the longitudinal axis of the button

hole, enclosing portions of the base material on opposite sides of said axis and the superimposed portions of the stay.

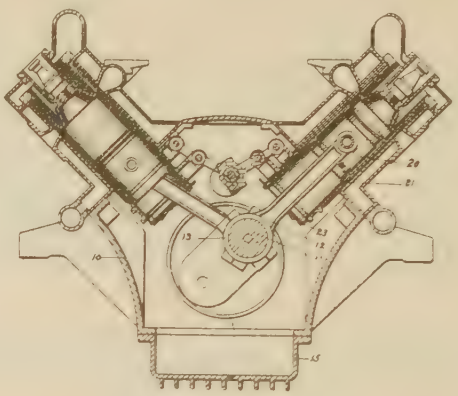
1,416,802. IGNITION SYSTEM. HENRY T. DUKET, Toledo, Ohio, assignor to The Willys-Overland Company, Toledo, Ohio, a Corporation of Ohio. Filed June 15, 1917. Serial No. 174,930. 12 Claims. (Cl. 290—37.)



3. In combination, a starting system for an internal combustion engine including a battery, a dynamo-electric machine and a starting switch therefor, an ignition system for said engine comprising primary and secondary windings and an interrupter, means for connecting said primary winding and said interrupter directly through said dynamo electric machine to form a complete series circuit independent of said switch.

1,416,803. BAFFLE PLATE FOR V-TYPE MOTORS. HENRY J. EDWARDS, Elyria, Ohio, assignor to The Willys-Overland Company, Toledo, Ohio, a Corporation of Ohio. Filed Sept. 13, 1918. Serial No. 253,898. 13 Claims. (Cl. 184—13.)

8. In an internal combustion engine, the combination of an open ended reciprocally mounted cylinder, a crank shaft operatively connected with said cylinder for reciprocating the same, a piston movable in said cylinder, a connecting rod extending through the open end of the cylinder and connecting the piston with said crank shaft,

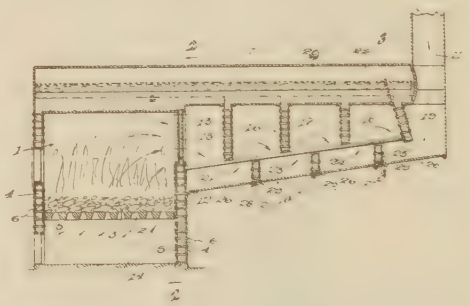


and a baffle plate secured upon the open end of the cylinder and movable therewith during reciprocation of the same.

1,416,804. CONTROL APPARATUS. EARL R. EVANS, Great Barrington, Mass. Filed Feb. 5, 1921. Serial No. 442,851. 14 Claims. (Cl. 172—179.)

1. A controller comprising a control member having a plurality of operative positions including an "off" position, means for normally locking the control member in the "off" position, electro-responsive means for releasing the control member, and a remote switch for actuating said electro-responsive means.

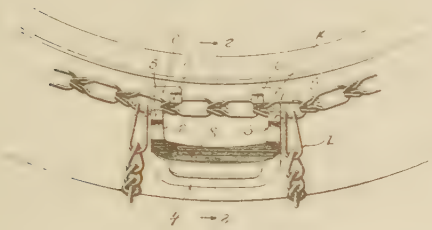
1,416,805. BOILER. PETER H. FERRIER, Jr., Chicago, Ill. Filed Oct. 31, 1918. Serial No. 260,503. 3 Claims. (Cl. 122—141.)



1. In a boiler, the combination, of a fire-box having hollow water containing walls, a main water and steam chamber, a stack, an enclosed passage way communicating with said stack and fire-box, and a plurality of water conducting tubes positioned within said enclosed passage and having direct communication with the interior of one wall of the fire-box and with said main water and seam chamber, and a plurality of hollow baffles extending into said enclosed passage and having communication with the interior of said main water and steam chamber, said baffle arranged in staggered relation to guide the combustion gases in a sinuous path

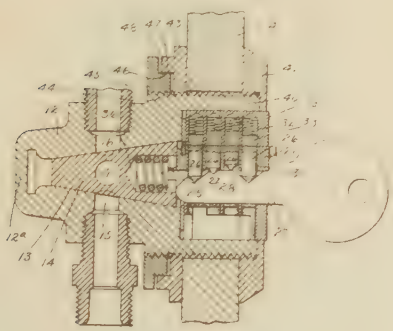
from the fire-box to said stack, the inner wall of said fire-box provided with an opening having communication with said enclosed passage, and a plurality of vertical tubes extending across said opening and having communication with the interior of the main water and steam chamber and the interior of the inner wall of the fire-box.

1,416,806. TRACTION LUG. FRANK M. FICHTEN, Manitowoc, Wis. Filed Oct. 8, 1921. Serial No. 506,377. 3 Claims. (Cl. 152—14.)



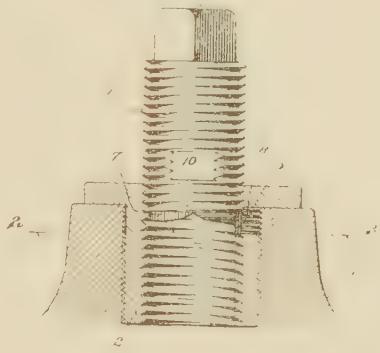
1. A traction lug having two arms connected by a web at one end and having jaws at the other end adapted to be secured to the longitudinally extending portion of an anti-skid chain, the inner sides of the arms being curved to conform to the side of a tire and an elongated spur connecting the arms above their web portion and extending outwardly.

1,416,807. LOCK VALVE. DANIEL C. FISHER, Boston, Mass. Filed Mar. 3, 1921. Serial No. 449,486. 1 Claim. (Cl. 251—6.)



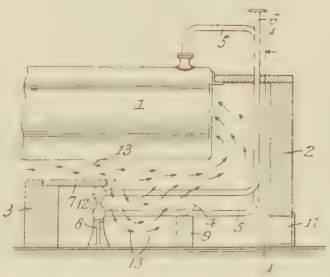
A stop-cock comprising a casing having at one end portion a tapered valve seat, and at its opposite end portion a socket communicating with the larger end of the seat; a tapered plug valve fitting said seat, and provided between its ends with a transverse passage adapted to connect inlet and outlet passages in the casing, and with a spring-receiving recess between said passage and the larger end of the valve; a pin tumbler lock, including a lock casing, and a valve-turning lock barrel adapted to turn without endwise movement in the lock casing, said barrel and valve being provided with complemental interengaging faces causing the valve to turn with the barrel, and permitting independent endwise movements of the valve; a spring located wholly within the periphery of the valve, and seated at one end on the barrel, and at its opposite end on the bottom of the said recess; and means securing the lock casing in said socket and maintaining the barrel in position to compress the spring.

1,416,808. ATTACHMENT FOR GREASE PLUGS. FRANK L. FISHER, Milwaukee, Wis. Filed June 9, 1921. Serial No. 476,229. 4 Claims. (Cl. 184—48.)



3. The combination of a grease cup having a bushing in threaded engagement therewith, and a plug for threaded engagement with said bushing internally, said bushing having a segmental recess intermediate its ends, a leaf spring normally disposed along the chord of said recess and frictionally engageable with the periphery of the plug when the latter is inserted, said plug having a flattened portion in its periphery to allow said spring to straighten when the plug is in a certain position with relation to the bushing and to prevent said plug from being accidentally moved outwardly from said position.

1,416,809. SUPERHEATER. ERNEST H. FOSTER, Dongan Hills, N. Y., assignor to Power Specialty Company, New York, N. Y., a Corporation of New York. Filed Nov. 14, 1919. Serial No. 337,955. 2 Claims. (Cl. 122—469.)

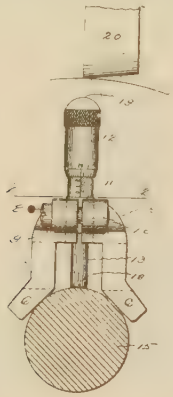


2. The combination with a return tubular boiler, its setting, and a bridge wall under the forward part of the boiler, of a superheater with its tubes in horizontal rows, placed back of said bridge wall and directly under the rear portion of the boiler, headers for said superheaters adjacent the bridge wall, and a slab of infusible material placed over the headers for protecting them from the direct action of the furnace gases which after passing over the forward portion of the boiler flow downward and then upward over the superheater tubes.

1,416,810. MICROMETER GAUGE. SHUBEL A. FOSTER, Hartford, Conn. Filed Dec. 27, 1920. Serial No. 433,169. 3 Claims. (Cl. 33—185.)

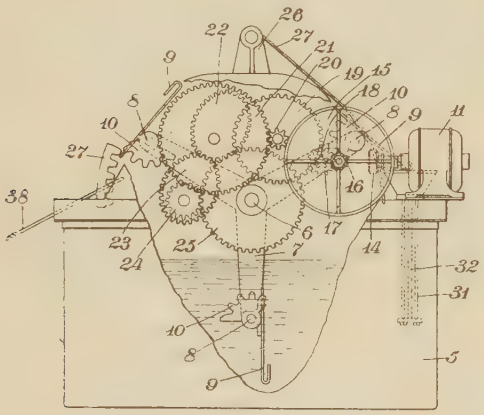
1. A head for a micrometer gauge having a fork with outwardly inclined surfaces at the ends of the fork, a

cylindrical perforation through the end of the head with a slit through the side of the head to said perforation,



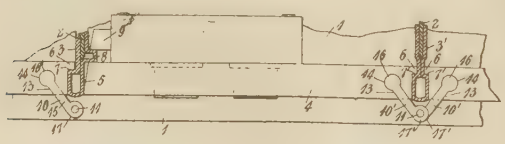
and a binding screw extending across the slitted portion of the head.

1,416,811. TEMPERING APPARATUS. LEE A. FRAYER and WILLIAM J. MILLER, Columbus, Ohio. Filed June 5, 1920. Serial No. 386,684. 12 Claims. (Cl. 266—6.)



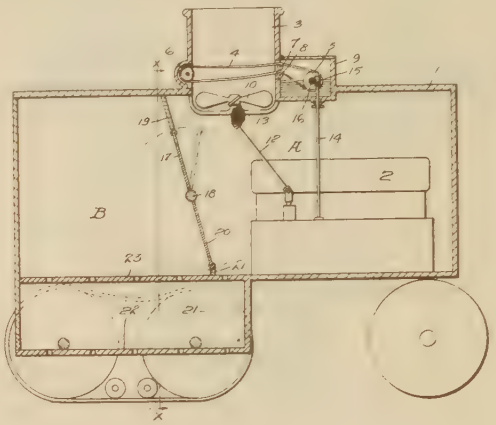
1. In a tempering mechanism, in combination with a tank to contain a bath, a revolving carrier for the article to be tempered adapted to carry the article into and out of the bath and mechanism for revolving said carrier adapted to cause a quick immersion of the article treated and a relatively slow motion of the article through the bath.

1,416,812. DOOR AND HINGE CONSTRUCTION. JOSEPH FREYBERG and LEO F. WUBBOLDING, Newport, Ky., assignors to The J. Baum Safe & Lock Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Aug. 18, 1919. Serial No. 318,229. 4 Claims. (Cl. 16—128.)



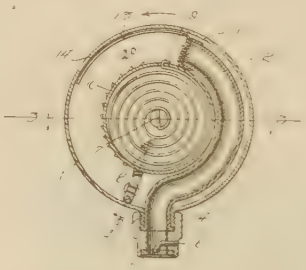
2. In a door and hinge construction, a door having a socket in its edge near one end thereof and having a slot leading from said socket out through the face of said door and over toward said end, and a hinge member comprising a head fitting in said socket and a shank fitting in said slot and projecting out therefrom and over past said end.

1,416,813. DUSTPROOFING AND COOLING TRACTOR CABS. RALPH E. FULLER, Washington, D. C. Filed Apr. 22, 1919. Serial No. 291,846. 5 Claims. (Cl. 98—23.)



3. In a cab, subdivided into compartments, a stack carried by said cab, a liquid reservoir carried by said stack, a travelling screen lying transversely of said stack and through said reservoir, means for drawing a current of air through said stack and said screen and delivering a portion of said current of air into one of said compartments and the balance into another of said compartments.

1,416,814. TIRE GAUGE. JACOB I. GLICKERMAN, Chicago, Ill. Filed Dec. 29, 1919. Serial No. 347,995. 4 Claims. (Cl. 73—31.)

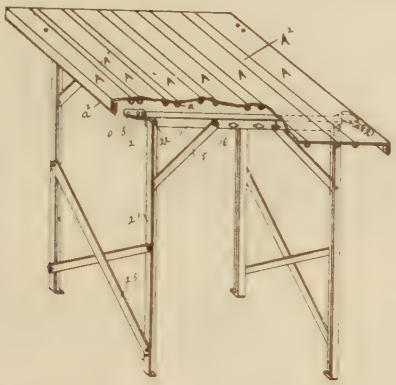


1. In a pressure gauge, a substantially cylindrical casing having a lateral inlet and having a relatively small opening at a distance from the inlet, a shaft axial of the casing, a spiral spring disposed so that it can be wound on the shaft and having its inner end locked against rotation with respect to the casing, a drum rotatable on the shaft and housing the spring and interlocked with the outer end of the spring, an indication-carrying strip fast with respect to the drum and having its indicating portion adapted to move past the said opening, and means operable by fluid pressure for rotating the drum against the resistance of the spring to cause the indicating strip to move past the said opening, the said means including a substantially cup-shaped head fastened to the periphery of the drum, a nipple arranged for securing the casing to a source of pressure, and a longitudinally expansible tube having its major portion disposed within the casing and having one end secured to the said nipple and its other end closed by and secured to the cup-shaped head.

1,416,815. FOLDING TABLE. WALTER S. GRAFFAM, Shrewsbury, Mass. Filed Nov. 15, 1920. Serial No. 424,055. 16 Claims. (Cl. 45—116.)

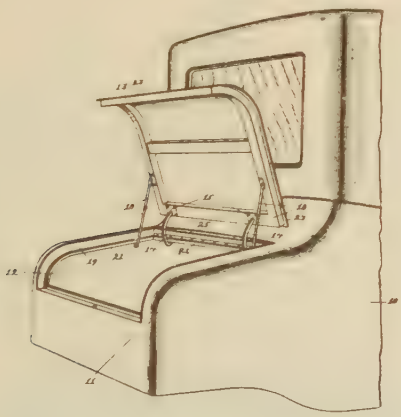
1. A folding table having a top comprising two series of parallel hinged panels, one series progressively increas-

ing in width all the way from one side to the other, the panel of that series near one edge being the narrowest and the one near the other edge being the widest of that series.



14. In a folding table, the combination of a top, with legs permanently pivoted thereto and adapted to support the top at a maximum height when held perpendicular to the top, means for holding them in such perpendicular position comprising braces pivoted to the legs, and means for holding said legs in crossed inclined relationship to support the top at a lower elevation comprising provisions below the top for holding the free ends of the braces at a different point.

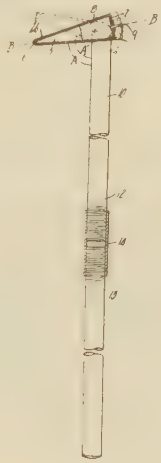
1,416,816. REAR-DECK CONSTRUCTION. ABUNDIUS GRAVEL, Toledo, Ohio, assignor to The Willys-Overland Company, Toledo, Ohio, a Corporation of Ohio. Filed Feb. 13, 1918. Serial No. 216,853. 4 Claims. (Cl 296—24.)



4. The combination with a vehicle provided with a rear deck having a storage compartment therein and a lid hinged to swing bodily outwardly for closing said compartment; of a frame surrounding the opening of said compartment and provided with a gutter extending entirely therearound and opening upwardly at the forward end and sides of said frame and rearwardly at the rear end of said frame.

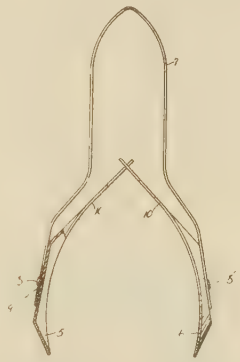
1,416,817. WINDOW WASHER AND CLEANER. ROSE A. GREELISH, South Braintree, Mass. Filed May 29, 1920. Serial No. 385,089. 3 Claims. (Cl. 15—232.)

1. A window cleaning tool having, in combination, a head with a narrow straight front edge, the opposite faces of said head diverging rearwardly from said edge, a straight handle fast thereto extending transversely of said edge and at a substantial distance therefrom, the median longitudinal plane of said head being inclined to the axial



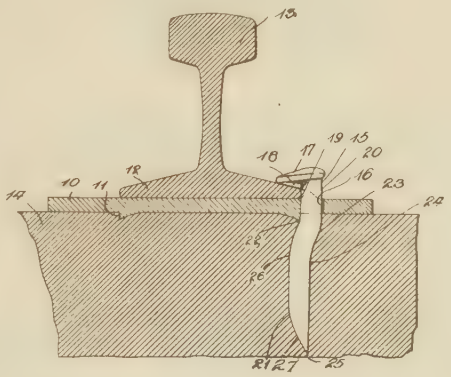
line of said handle, and means to attach a piece of fabric to said head extending across said front edge.

1,416,818. STRAWBERRY HULLER. NATHANIEL C. HALL, Old Lyme, Conn. Filed Mar. 22, 1922. Serial No. 545,759. 3 Claims. (Cl. 146—6.)



1. A strawberry huller comprising a pair of jaws connected with a spring-handle, and a bearing for the inner ends of said jaws.

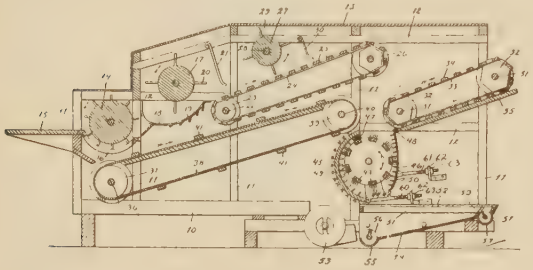
1,416,819. RAILWAY SPIKE. HUBERT E. HARRIS, Jonesboro, and JAMES H. DOWNEY, Gainesville, Ga. Filed Feb. 14, 1922. Serial No. 536,466. 4 Claims. (Cl. 238—295.)



2. A railway spike comprising a head having an overhanging lip, a surface below said lip inclined downward

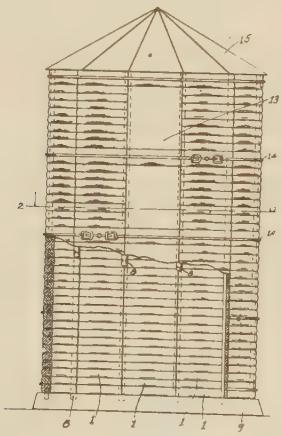
and in the direction of overhang of said lip and adapted to underlie an object to be held by said lip, a cam surface opposite said inclined surface adapted to throw said inclined surface under the object to be held by contact with the material into which the spike is driven.

1,416,820. COMBINED THRASHER AND CLOVER HULLER. JOHN HARVAT, Eastman, Wis. Filed June 26, 1920. Serial No. 392,125. 1 Claim. (Cl. 130—2.)



In a thrashing machine including a casing and conveyors therein, a hulling cylinder located between and below the adjacent ends of the conveyors, a pair of concaves pivoted at their upper corners to the casing and arranged at opposite sides of the cylinder, and means for holding either concave in operative and the other in inoperative relation to the cylinder comprising a bolt pivotally connected with the lower edge of each concave, a bracket secured within the casing and through which the bolt passes, and adjusting nuts on the bolt engaging both sides of the bracket.

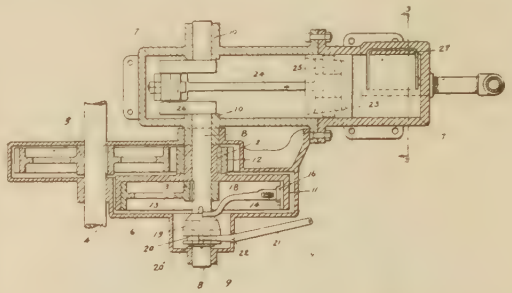
1,416,821. BUILDING STRUCTURE. EARL HEATH, Marinette, Wis. Filed Feb. 26, 1921. Serial No. 448,024. 9 Claims. (Cl. 20—1.4.)



1. A building wall comprising a series of cylindrical vertical posts and interposed tiers of log units having their ends vertically recessed hemispherically to receive the posts and allow the front and rear portions of the ends of the units of adjacent tiers to abut, the inner and outer surfaces of said log units retaining their natural cylindrical rounded contour.

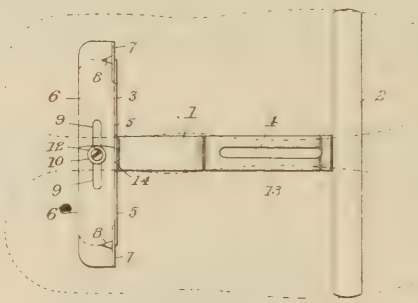
1,416,822. PNEUMATIC BRAKE FOR VEHICLES. RALPH D. HEATH, Portland, Oreg., assignor of one-half to John Ring, Portland, Oreg. Filed Jan. 24, 1921. Serial No. 439,582. 4 Claims. (Cl. 188—99.)

1. A braking device for a power shaft, having in combination therein, a united cylinder and crank case, a pipe extending from a port in the cylinder to one in the crank case, and provided with a throttle therein, a second pipe extending from and to similar ports, and provided with a check valve therein opening forwardly, a piston slidable



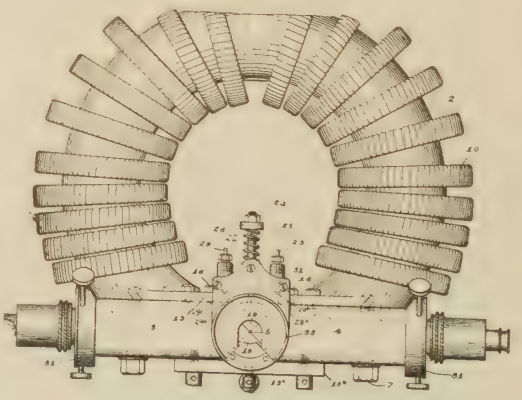
in the cylinder, and a crank shaft transversely in the crank case, provided with a connecting rod mounted at one end on the crank pin, its opposite end being mounted on a wrist pin of the piston.

1,416,823. SHOE REST. EPHRAIM S. HECHT, New York, N. Y. Filed Sept. 21, 1921. Serial No. 502,214. 8 Claims. (Cl. 211—14.)



1. In a shoe rest, the combination with a cross bar for supporting the heels of a pair of shoes, of devices to engage the inner faces of said heels for holding the shoes in position, said devices being adjustable on said bar for accommodating different sizes of shoes.

1,416,824. GALVANOMETER. CHARLES F. HINDLE, Elmhurst, N. Y. Filed July 2, 1917. Serial No. 178,136. 20 Claims. (Cl. 171—95.)

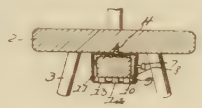


1. In a galvanometer having an electro-magnet with oppositely disposed pole members, adjustable means for suspending a string between said pole members, said means being laterally and longitudinally adjustable rela-

tively to said pole members into a plurality of parallel positions relative to itself.

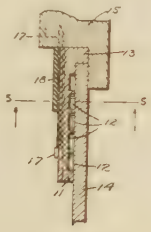
10. In a galvanometer having an electro-magnet with spaced opposed pole members, a conducting string, means for supporting said string under tension in the space between said pole members, and means for shifting said string supporting means in a plurality of directions transversely of the string without varying the tension of the string.

1,416,825. COMBINATION SOAP HOLDER AND GRATER FOR WASHING-MACHINE DASHERS OR AGITATORS. GOTTLIEB H. HOELSCHER, Battle Creek, Iowa. Filed Mar. 28, 1921. Serial No. 456,092. 3 Claims. (Cl. 68—15.)



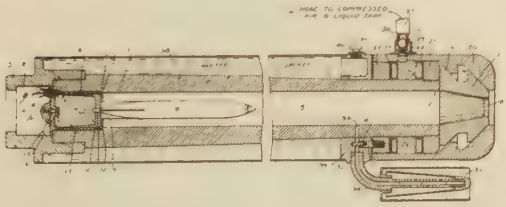
1. In a device for the purpose indicated, an agitator, a soap receiving receptacle carried thereby, a cover for said receptacle, said cover having openings through which grated particles of soap pass, and provided with flanges with which the soap engages for grating the same, the receptacle being large enough to permit the soap to agitate therein, whereby the flanges may grate the surface of the soap during its movement.

1,416,826. MIRROR FASTENER. WILLIAM H. HOLDER, Moscow, Pa. Filed Aug. 8, 1921. Serial No. 490,742. 6 Claims. (Cl. 20—56.4.)



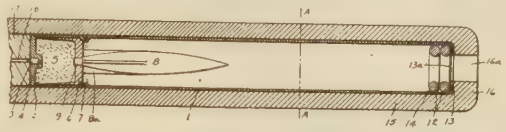
1. A fastener as characterized comprising a pad; a fastening member disposed prone thereupon for extending from one end thereof; and a resilient cover therefor, said cover and pad having a passage therebetween for said fastening member.

1,416,827. ORDNANCE. BRADFORD B. HOLMES, New York, N. Y. Filed Jan. 10, 1921. Serial No. 436,262. 13 Claims. (Cl. 89—1.)



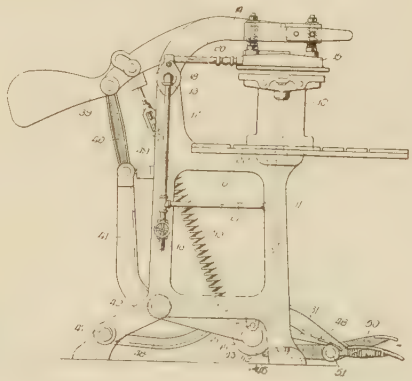
13. In a device of the class described in combination; a barrel; a powder charge in said barrel; a projectile; a piston set in motion by the expansive force of gases generated from the burning of said powder charge and adapted to impart motion to said projectile and seal said gases in said barrel; conical segments adapted to retard the motion of said piston near the muzzle of said barrel, said segments being retained by a sleeve and a hydraulic brake adapted to permit the slow and controlled expansion of said conical segments under the thrust of said piston, and to permit the expulsion of said piston after an interval of time, and a gas outlet operated and controlled by the motion of said sleeve to permit the escape of gases from said barrel during the time of retardation of said piston by said conical segments.

1,416,828. FIREARM. BRADFORD B. HOLMES, New York, N. Y. Filed Jan. 18, 1921. Serial No. 438,099. 13 Claims. (Cl. 89—1.)



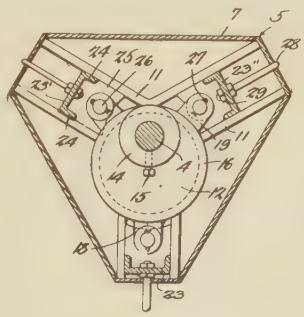
1. In a device of the class described, in combination, an explosive charge; a detonator to ignite said charge; a projectile; a piston adapted to impart motion to said projectile upon the ignition of the explosive charge; cushioning means arranged to permit the passage of said projectile but to arrest the motion of said piston, and a cartridge case containing the said parts and forming with them a single unitary structure.

1,416,829. PRESSING MACHINE. HANS C. HOTING, Neuss, Germany, assignor to Troy Laundry Machinery Co. Ltd., Chicago, Ill., a Corporation of New York. Filed Nov. 4, 1918. Serial No. 261,118. Renewed Oct. 31, 1921. Serial No. 511,843. 5 Claims. (Cl. 68—9.)



1. In a pressing machine, a pressing member, a lever operatively connected to said pressing member, a second lever for actuating the first lever to move the pressing member into a pressing position, a locking member carried by said first lever, and a locking member carried by said second lever for co-operating with the other locking member to lock the pressing member when said position is reached.

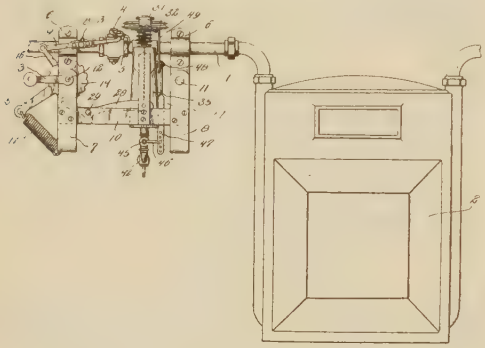
1,416,830. FEEDER DRUM. ERNST A. H. JACOB, San Antonio, Tex. Filed Aug. 24, 1920. Serial No. 405,761. 3 Claims. (Cl. 100—25.)



1. In a device of the class described, a fixed shaft; a drum comprising a shell and end walls journaled on the

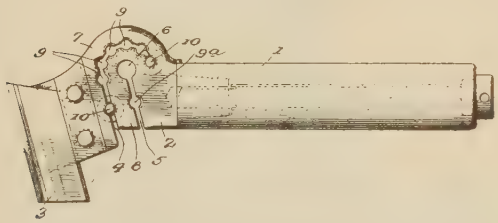
shaft, the end walls having guides; a slide having its ends mounted to reciprocate in the guides; a finger carried by the slide and mounted to reciprocate in the shell; an eccentric fixed to the shaft; and a strap surrounding the eccentric and pivoted to the slide.

1,416,831. AUTOMATIC GAS-CONDUIT CONTROL MEANS. HARRY JERVIS, Weirton, W. Va. Filed Aug. 17, 1921. Serial No. 492,958. 5 Claims. (Cl. 67—116.)



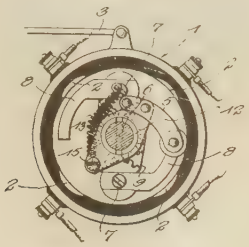
3. The combination of a conduit, a cut off valve therein, a pilot-burner, a conduit between the first-named conduit and the pilot burner and provided with a valve means to close the cut-off valve when the same is released, and thermostatic means to increase the opening of the pilot-burner valve and to release the cut-off valve.

1,416,832. TOOL HOLDER. ERNST AUGUST JOHANSSON, Strangnas, Sweden. Filed Oct. 2, 1920. Serial No. 414,359. 3 Claims. (Cl. 29—100.)



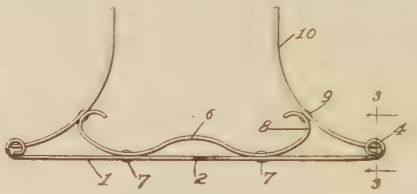
1. A tool of the class described comprising a cutter supporting member of elastic material having a transverse open ended slot extending a distance from its open end substantially parallel with the direction of the working thrust of the cutter, and then arching away from the cutter, and seats for a filling device spaced apart along said slot.

1,416,833. AUTOMATIC TIMER FOR AUTOMOBILES. HENRY V. JOHNSON, St. Paul, Minn. Filed Feb. 27, 1920. Serial No. 361,828. 1 Claim. (Cl. 200—26.)



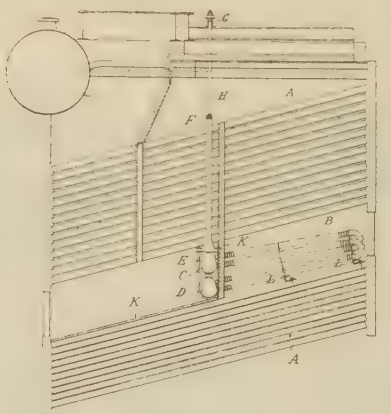
In a timer for internal combustion engines, the combination with a timer casing provided with a plurality of stationary contacts, and a timer shaft in the casing; of a flat base secured on the timer shaft, laterally extending pivot pins carried by the base, a pair of weighted arms pivoted on said pins, being moved on these pivots by centrifugal force, each arm being provided with a gear segment, a hub carried by said base, a pinion on the hub interposed between and coacting with said gear segments, said hub being provided with pairs of oppositely disposed spaced arms extending laterally from it, pins extending between and connecting the free ends of these arms, a circuit closing member including spaced plates arranged on opposite sides of one pair of said arms and having pivotal connection with the adjacent connecting pin, a contact roller arranged between the plates at one end, another pin arranged between and connecting the opposite ends of said plates, and a coiled spring connected to one of the pivot pins and one of the connecting pins on the arms of said hub to resist movement of the weighted arms and to return the latter to normal position.

1,416,834. AUTOMOBILE BUMPER. EVERETT R. JONES, Wyandotte, Mich., assignor of one-half to William E. Allen, Wyandotte, Mich. Filed Jan. 9, 1922. Serial No. 527,960. 3 Claims. (Cl. 293—55.)



3. A bumper for motor vehicles comprising a front strip having backwardly curled end portions provided with slots, forwardly diverging side strips projecting into the slots in the respective curled portions and mounted to move freely therein, a bow spring secured back of the front strip, and curved spring connections integral with the bow spring and joining the front and side strips, said front and side strips being formed of spring material.

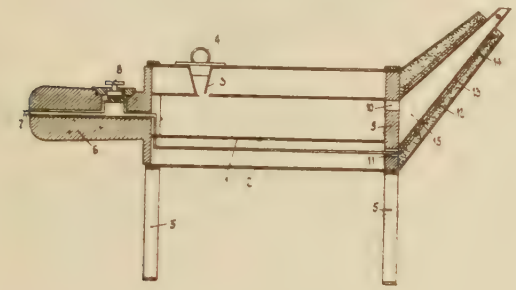
1,416,835. SUPERHEATER SUPPORT. WALTER F. KEENAN, Jr., New York, N. Y., assignor to Power Specialty Company, a Corporation of New York. Filed Jan. 29, 1921. Serial No. 440,847. 4 Claims. (Cl. 122—476.)



2. The combination with a water tube boiler having horizontal rows of staggered tubes divided horizontally to form a space for a superheater, of a superheater located in such space, a hanger connected to the headers of said superheater and passing up through the bank of

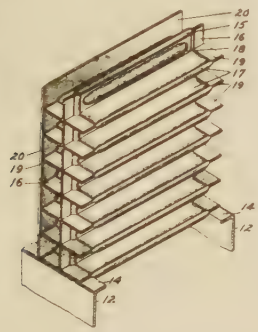
tubes above the same, the said hanger having passages through which pass the tubes of alternate rows, and a beam support above the boiler to which the upper end of said hanger is connected.

1,416,836. SEALING APPARATUS. ISAAC KEESING, Jr., Amsterdam, Netherlands. Filed Apr. 6, 1921. Serial No. 459,208. 1 Claim. (Cl. 120—116.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



An improved sealing apparatus having a box containing the sealing wax, a spout and means for heating said spout, the latter in the inoperative position of the apparatus being directed upwards; characterized in that the spout is separated from the box by means of a heat-insulating partition having an aperture made therein in such a way, that the granular wax in the operative position of the apparatus is allowed to pass from the box into the spout, the melted wax stayed behind in the spout in the inoperative position of the apparatus however being prevented from flowing back into the box.

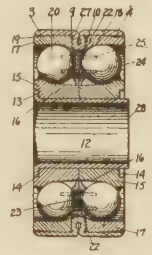
1,416,837. RADIATOR FOR AUTOMOBILES. THOMAS J. KEHOE, Toledo, Ohio, assignor to The Willys-Overland Company, Toledo, Ohio, a Corporation of Ohio. Filed June 15, 1917. Serial No. 174,928. 5 Claims. (Cl. 257—130.)



1. In a device of the character described, the combination of a heater having an opening therein, a water tube unit connected therewith comprising a flat tubular portion, and a plurality of hollow arms communicating therewith and extending therefrom, the lowermost of said arms resting upon said header and spanning said opening.

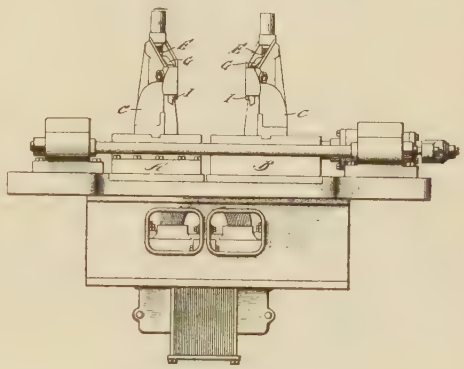
1,416,838. ANTIFRICTION BEARING. HARFORD C. KNOWLES, Elmira, N. Y., assignor to The Willys-Morrow Company, Elmira, N. Y., a Corporation of Ohio. Filed May 15, 1919. Serial No. 297,416. 9 Claims. (Cl. 64—36.)

6. A bearing casing having a portion thereof forced inwardly in such a manner that the side walls of the inwardly extending portions have their inner surfaces in contact with each other, the outer side walls of said



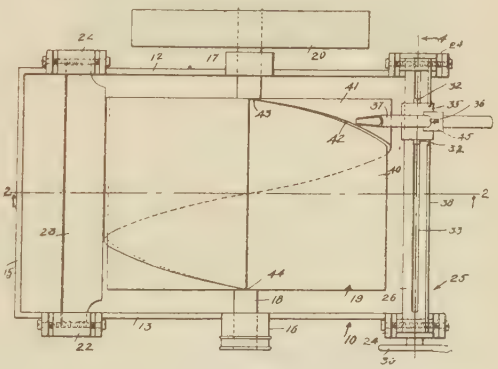
portions providing supporting surfaces, and cylindrical portions extending outwardly in opposite directions from the inwardly extending portions thereof.

1,416,839. CLAMP FOR WELDING-MACHINE ATTACHMENTS. HARRY W. KRANZ and JOHN LUKES, Cleveland, Ohio, assignors to The Hydraulic Pressed Steel Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 24, 1920. Serial No. 383,700. 7 Claims. (Cl. 219—17.)



1. In a machine of the kind described, the combination with the base portions, of the castings connected thereto, a fluid operated rack arranged in each casting, gears meshing with said racks, and clamps operated by said gears all arranged as set forth.

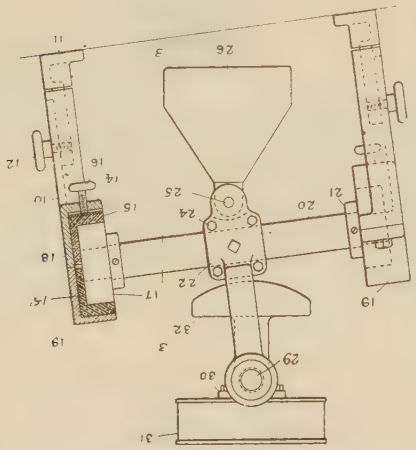
1,416,840. LIQUID-FEEDING APPARATUS. MAX KRAUT, Los Angeles, Calif. Filed May 9, 1921. Serial No. 468,133. 10 Claims. (Cl. 221—97.)



1. An apparatus of the class described, comprising a liquid receiving tank, a rotatable element having a mutilated rim mounted in said tank adapted to collect a film

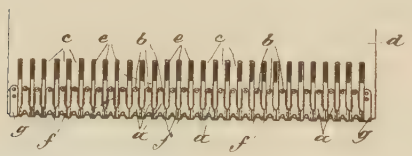
of the liquid on its rim face, and means for removing a predetermined quantity of said liquid from said liquid collecting rim face during its rotation.

1,416,841. AERONAUTICAL COMPASS. KARL A. KRETSCHMAR, Palmer, Mass. Filed Apr. 8, 1920. Serial No. 372,288. 6 Claims. (Cl. 33—215.)



1. In a compass mounting, the combination of two shafts arranged at right angles to each other, two frames, one carried by each shaft and capable of swinging about the axis thereof, one frame also being supported by the other shaft and a weight located on each frame below its shaft for keeping said frames in the same position irrespective of the position or angle to which the support for the shaft is turned.

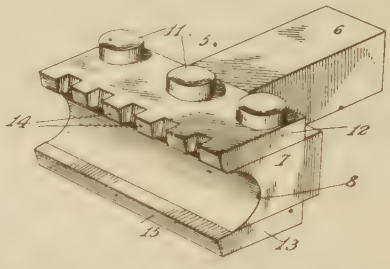
1,416,842. TYPEWRITING MACHINE. GEORG KROMM, Stuttgart, Germany. Filed Jan. 5, 1917. Serial No. 140,742. 2 Claims. (Cl. 197—107.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



1. In a typewriting machine, a comb-shaped guide plate, key-levers movable between the teeth of said plate, and a succession of locking means below and normally in the path of the key-levers, said locking means having a limited motion and pivotally connected one to each tooth of said plate.

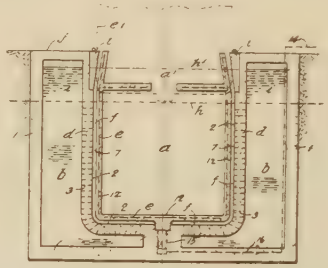
1,416,843. CUTTING TOOL. JOSEPH LABONTÉ, Blaisville, Quebec, Canada. Filed May 3, 1921. Serial No. 466,395. 2 Claims. (Cl. 29—97.)

1. A tool of the character described, comprising a shank, a head formed upon one end thereof, said head having an outer concaved surface, blades attached to the opposite sides of the head and a series of cutting teeth formed



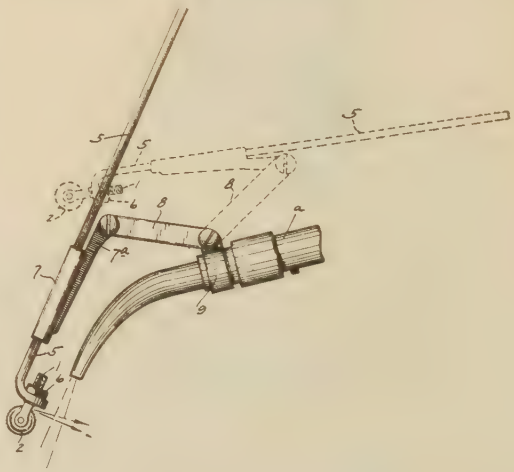
upon the outer edge of one of the blades, substantially as and for the purposes set forth.

1,416,844. MOLD FOR CASTING CONCRETE HULLS. EDWARD A. LARSEN, Larkspur, Calif., assignor to himself, James D. Whalen, Augustus J. Bowie, and E. N. Richardson, trustees, San Francisco, Calif. Filed Apr. 1, 1918. Serial No. 225,971. 20 Claims. (Cl. 25—130.)



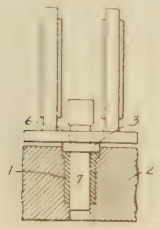
1. In a graving dock for molding the hulls of reinforced concrete hulls, forms in sections for giving shape to the interior of the hull and deck portions, hydraulic jacks along the keel line of the dock for auxiliary power in lifting the cast hull from the mold, openings through the walls of the dock to admit water for floating the vessel by forcing it through the perforations in the mold wall.

1,416,845. OXYACETYLENE LIGHTER. NAPOLEON G. LAVIGNE, Virginia, Minn. Filed Apr. 19, 1921. Serial No. 462,759. 3 Claims. (Cl. 67—6.1.)



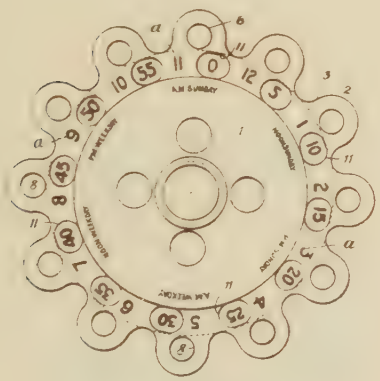
2. The combination with a blow torch of a lighting device secured to the body of the torch by a pivoted link and a sliding member pivotally connected to the end of said link.

1,416,846. METHOD OF MANUFACTURING BUSHINGS AND SIMILAR ARTICLES. JOHN WYCLIFFE LEIGHTON, Toronto, Ontario, Canada, assignor to Pressed Metals Company of Canada, Limited, Toronto, Ontario, Canada. Filed Feb. 17, 1919. Serial No. 277,601. Renewed Nov. 19, 1920. Serial No. 425,287. 10 Claims. (Cl. 29—156.)



1. The method of producing a bearing surface which consists in confining a heated blank on all sides except the side to be operated upon, then moving a tool over the unconfined surface applying progressively a stress to distort the crystalline formation.

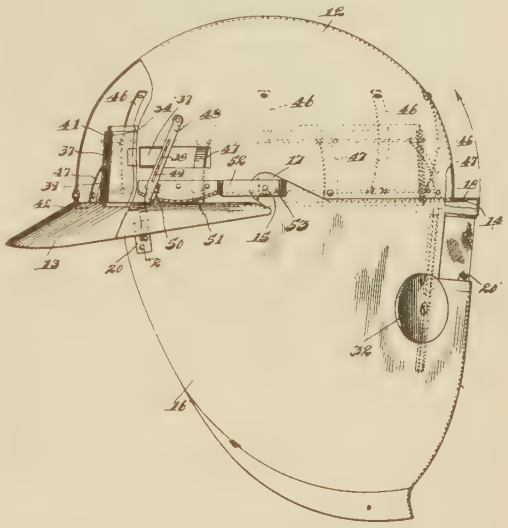
1,416,847. INDICATOR. JOHN LEWIS and SAMUEL DAVIES, Briton Ferry, Wales. Filed Mar. 25, 1921. Serial No. 455,392. 8 Claims. (Cl. 40—70.)



1. An indicator applicable for the purpose hereinbefore referred to, comprising a set of indicator plates arranged one behind another and rotatable relatively to one another, said plates bearing circular series of indications and being so formed that it is possible by rotating them relatively to one another, to bring desired indications into conjunction so as to thereby form a notice, and one of said plates being formed with means for suspending the indicator in definite positions for the display of the desired notice, substantially as set forth.

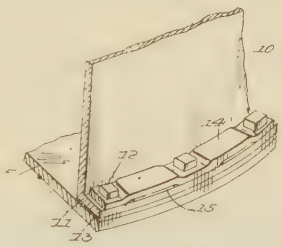
1,416,848. WELDING HOOD. JOHN M. LIGHTFIELD, Chicago, Ill. Filed Jan. 9, 1920. Serial No. 350,254. 7 Claims. (Cl. 2—117.)

1. A welding hood comprising a cap; a deflecting shield mounted on the rearward end of said cap; hooks on said shield; a face shield pivotally mounted on said cap; and



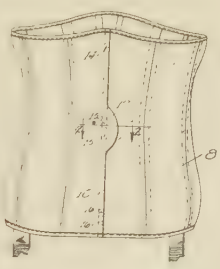
hooks on said face shield adapted to engage hooks on the deflecting shield for retaining same in operative position.

1,416,849. TANK. CHARLES H. LOOP, Pawhuska, Okla., assignor to C. H. Loop Steel Manufacturing Company, a Corporation of Oklahoma. Filed Sept. 25, 1920. Serial No. 412,728. 1 Claim. (Cl. 220—75.)



A tank including a head and a bottom, staves connecting the head and bottom, each of the staves having right angled ends, a reinforcing strip positioned over the right angled ends, bolts extending through the right angled ends, strips and bottom for securing the same together, and packing strips of material disposed between the bolts and under the reinforcing strips for causing the strips to bulge.

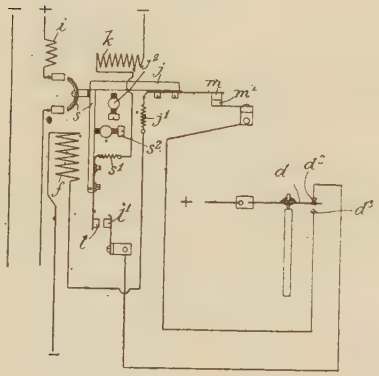
1,416,850. CORSET CLASP. GRACE ELIZABETH MCNAMARA, Plymouth, Ind. Filed Dec. 31, 1920. Serial No. 434,275. 1 Claim. (Cl. 2—74.)



The combination with a corset having overlapping portions, of a metal strip secured to the inner face of the

outer overlapping portion, and a metal strip secured to the outer face of the inner overlapping portion, one of said strips having a plurality of integral portions bent back upon the strip, each of said bent back portions having flanges bent inwardly to lie between the bent back portions and the body portion of the strip, and to constitute female clasp members, the other strip having integral portions bent back upon the strip to constitute male clasp members and arranged to engage the corresponding female clasp members, said clasp members lying between said strips when in clasping engagement, one of said overlapping corset portions having an extension flap for facilitating the clasping and unclasping of the corset.

1,416,851. THERMOSTATIC REGULATING OR CONTROLLING APPARATUS. ALFRED HENRY MCNEIL, Chingford, England. Filed Jan. 23, 1918. Serial No. 213,326. 1 Claim. (Cl. 175—375.)



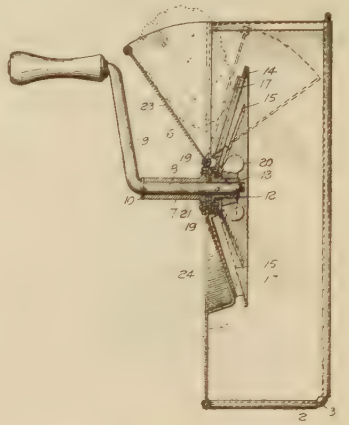
In apparatus of the class described, a thermo-sensitive member fixed at one end, a rod connected to said member and to which longitudinal movement is imparted by the expansion and contraction of said member, a normally open electric circuit including a relay and also including a contact blade normally held in open position by said rod, an electric switch controlled by said relay, a locking bar for said switch, a spring to move said locking bar to locking position, a relay to move said bar to unlocking position, a circuit in which said relay is included, said circuit also including a contact against which said blade is normally closed, a contact on the locking bar and in the circuit in which the first named relay is included, and a contact on the switch and in the circuit in which the second named relay is included.

1,416,852. WATERPROOFING COMPOSITION. GUSTAF W. MAGNUS, Seattle, Wash. Filed Jan. 26, 1922. Serial No. 531,931. 4 Claims. (Cl. 134—54.)

3. A waterproofing composition consisting of forty parts by weight of raw linseed oil, one part by weight of rubber, one and one-third parts of sugar lead, and sufficient gasoline to suitably thin the material for the purpose intended.

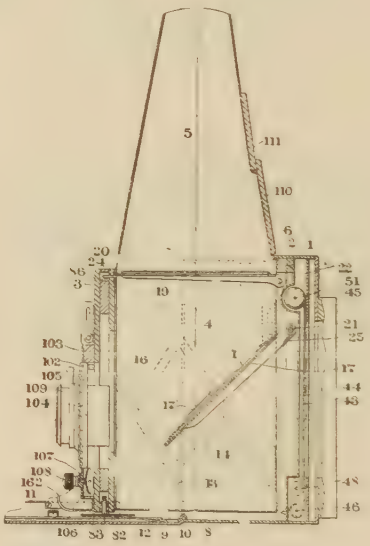
1,416,853. POTATO SLICER AND SHREDDER. ROY D. MAINE, Cheyenne, Wyo. Filed Oct. 13, 1920. Serial No. 416,652. 5 Claims. (Cl. 146—11.)

4. A potato slicer and shredder, comprising a holder having a feed opening, a rotary cutting disk mounted for rotation about an axis beneath said opening, and a tray hinged above the axis of rotation forward of said



opening and adapted to support a potato engaging with the working surface of the disk.

1,416,854. REFLEX PHOTOGRAPHIC CAMERA. PERCY GEORGE MASON, London, England, assignor to Newman & Guardia, Limited, London, England. Filed Aug. 17, 1920. Serial No. 404,143. 8 Claims. (Cl. 95—42.)

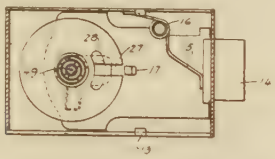


1. A folding or collapsible reflex camera of the type referred to, comprising a rigid camera body, a sliding front adapted to carry a focusing lens tube, flexible walls, and a flexible bottom directly connecting said sliding front to said rigid camera body, and a foldable focussing hood connected to the upper parts of said front, rigid body, flexible walls, and flexible bottom, and a focusing element connected with a sliding front.

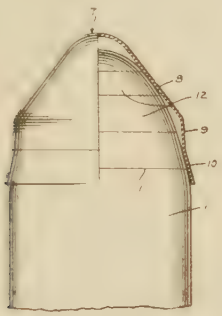
1,416,855. LOCK. JOHN MICHALEK, Chicago, Ill. Filed Apr. 22, 1921. Serial No. 463,437. 4 Claims. (Cl. (70—53.)

1. A combination lock comprising a series of outer disks: a series of inner slotted disks; means on each outer disk to engage and rotate one of said slotted disks; a bolt lockable in extended position; means on said bolt

adapted to slide in said slots; means engaging said bolt to withdraw the same when said slots are in predetermined alinement; and means on said disks co-operating with said means on said bolt to lock said bolt in withdrawn position.

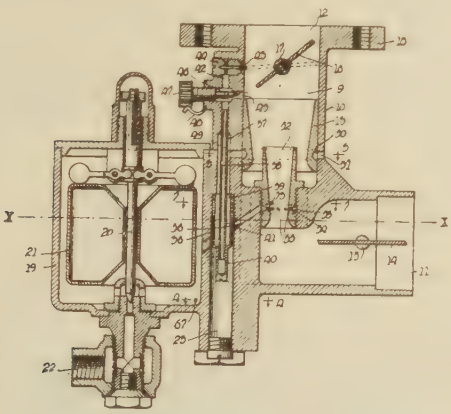


1,416,856. FUSE-CAP PROTECTOR. HARVEY F. MITZEL, Providence, R. I., assignor to The Revere Rubber Company, a Corporation of Rhode Island. Filed Mar. 27, 1920. Serial No. 369,265. 4 Claims. (Cl. 102—36.)



1. A moisture excluding cover of balatatious composition for the fuse end of shells having a cupped body portion and a marginal gripping portion, the body portion being shaped to embrace the shell end loosely and the marginal gripping portion being flared outwardly and adapted to be distended to grip and seal off the shell and also to support the body portion of the cover.

1,416,857. CARBURETOR. FRANK C. MOCK, Chicago, Ill., assignor to The Stromberg Motor Devices Company, Chicago, Ill., a Corporation of Illinois. Original application filed Aug. 25, 1915, Serial No. 47,385. Divided and this application filed Aug. 9, 1919. Serial No. 316,309. 5 Claims. (Cl. 261—41.)

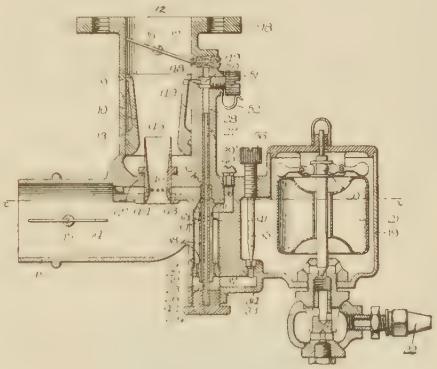


3. In a carburetor, a carbureting chamber having an air-inlet and a mixture outlet, a throttle valve in said outlet, a constant-level chamber supplying liquid fuel, a fuel-nozzle, a well connected with said constant-level chamber and said nozzle, said nozzle being fed from said well slightly below the normal level therein, air being bled into said well slightly below the normal level, a second nozzle leading to said carbureting chamber, above the throttle from said well at a point below the lowest fuel-level therein, another well communicating with the atmosphere and fed from said constant-level chamber by a restricted passageway, and a fuel-tube leading from said well to said carbureting chamber at a point slightly above said first-named nozzle, said fuel-tube being provided in said second well with a series of bleeder openings.

4. In a carburetor, a carbureting chamber having air and fuel inlets and a mixture outlet, a butterfly throttle in said mixture outlet, an opening in the wall of said carbureting chamber in proximity to the edge of the throttle when said throttle is in closed or substantially closed position, said opening being of such size that it extends beyond both sides of the throttle, a plug fitting in said opening but ending at a distance from the inner surface of said wall so as to form a recess, said plug having a small passageway therethrough, and a fuel passageway leading to said small passageway.

5. In a carburetor, a carbureting chamber having a portion thereof in the form of a Venturi tube and having fuel and air inlets and a mixture outlet, a throttle controlling said mixture outlet, a constant level fuel supply chamber, a fuel passageway leading from said fuel supply chamber to said carbureting chamber and discharging in proximity to the throttle when closed or substantially closed, and a passageway entirely above the fuel level in the supply chamber connecting said fuel passageway and said carbureting chamber between said throttle when closed or substantially closed and the most restricted zone of said Venturi tube.

1,416,858. CARBURETOR. FRANK C. MOCK, Chicago, Ill., assignor to Stromberg Motor Devices Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 24, 1917. Serial No. 187,929. 2 Claims. (Cl. 261—41.)



1. In a carburetor, a casing forming a constant level liquid fuel supply chamber and a carbureting chamber side by side and a bore therebetween, said carbureting chamber having an air inlet and a mixture outlet, a throttle in said mixture outlet, a sleeve member in said bore forming a fuel passageway leading to said carbureting chamber and also forming an annular accelerating well about said passageway and connected therewith, means for the admission of air to the top of said accelerating well, a fuel nozzle in proximity to said throttle, and a fuel tube passing through said sleeve member and leading to said nozzle, said constant level liquid fuel supply chamber feeding said well and said passageway and said fuel tube.

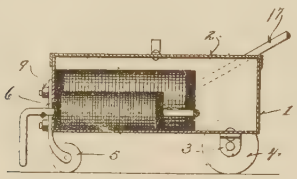
2. In a carburetor, a casing forming a carbureting chamber having fuel and air inlets, and a mixture outlet, a throttle in said mixture outlet, a passageway formed in the wall of said casing, the lower portion of said passageway being enlarged, a fuel supply chamber feeding into the enlarged portion of said passageway, a tube disposed in said enlarged portion of said passageway, with its upper end rigidly fitted to and feeding the upper portion, of

said passageway, a plug fitting into the bottom of the enlarged portion of said passageway and closing the same and receiving the lower end of said tube, and a fuel connection between said enlarged portion of said passageway and said tube.

1,416,859. PROCESS OF PRODUCING BENZYL ALCOHOL. RALPH E. MONTONNA, Syracuse, N. Y., assignor to Semet-Solvay Company, Solvay, N. Y., a Corporation of New York. Filed May 18, 1921. Serial No. 470,686. 7 Claims. (Cl. 260—156.)

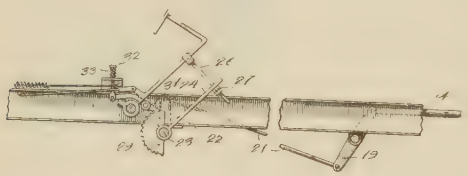
1. The process of producing chlorine-free benzyl alcohol which consists in combining crude benzyl alcohol and calcium chloride, breaking up the compound to set free benzyl alcohol and separating the benzyl alcohol from the residue.

1,416,860. MACHINE FOR COLLECTING WASTE METAL ARTICLES. WILLIAM NELESEN, Sheboygan, Wis. Filed June 15, 1920. Serial No. 389,103. 1 Claim. (Cl. 175—367.)



In a mechanism of the class described, a wheeled support, a housing carried thereby, a removable cover for said housing, a plurality of electro-magnets horizontally disposed within the housing with the cores thereof extending forwardly through the housing, then vertically downwardly and then laterally parallel to the surface over which the device is to be moved, and means for vertically adjusting the forward end of the housing and thereby vertically adjusting the laterally extending portions of said cores.

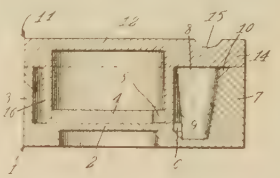
1,416,861. MOTOR-VEHICLE BUMPER. ERNEST NYSTROM, Oakland, Calif. Filed Jan. 10, 1921. Serial No. 436,394. 5 Claims. (Cl. 180—83.)



1. The combination with a motor vehicle of a bumper slidably mounted upon the front thereof; a pair of arms operatively connected to the bumper; means for adjustably connecting said arms with the clutch and brake pedals of the vehicle for actuating the same when the bumper is moved rearwardly toward the vehicle; means for normally retaining said bumper in its forward position; means for automatically engaging and retaining said pedals in their respective positions after movement by the bumper; and means operable by the operator of the vehicle for releasing said retaining means to permit the pedals to return to their normal positions.

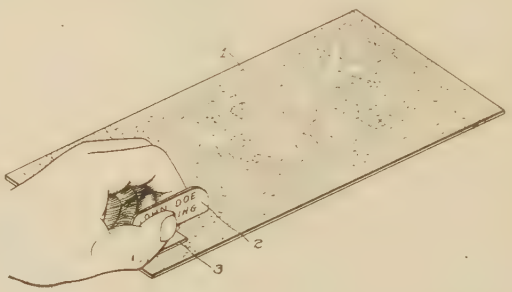
1,416,862. INKWELL. ERWIN HARRIS OAKMAN, Atlanta, Ga. Filed Oct. 16, 1920. Serial No. 417,289. 3 Claims. (Cl. 120—59.)

1. An ink well comprising an outer casing having an offset dip well, the casing including a side wall and a base, the outer portion of the face of the base adjacent to the wall having a shallow circuitous basin communicating with the dip well and adapted to convey ink thereto and to receive and distribute overflow of ink, the central portion of the base embodying an upstanding projection having an edge notch communicating with the basin, and an inner receptacle inverted in the casing, the receptacle compris-



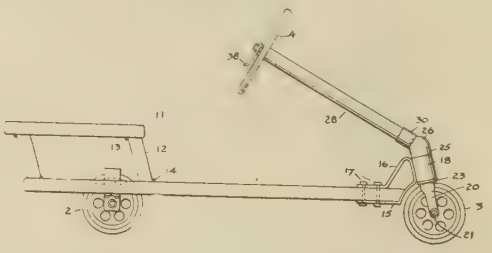
ing a tubular body surrounding the projection and closing the notch to prevent ink from flowing therethrough, the body being spaced from the wall and having an opening which is brought into registration with the notch when the inner receptacle is rotated, thereby to establish communication between the interior of the body and the basin.

1,416,863. BLOTTER. GEORGE D. PARKER, Riverside, Calif. Filed Apr. 21, 1920. Serial No. 375,438. 1 Claim. (Cl. 120—24.)



A finger or grip attachment for advertising blotters, the same comprising a body member formed of a single sheet of relatively stiff paper centrally cut inwardly from one side edge to approximately its center to provide a pair of foot members formed integral therewith and each of a length approximately one-half of the total length of the body, said members adapted to be bent on a longitudinal line toward opposite faces of said body to form foot members adapted for adhesively securing to and resting on the face of the blotter containing the advertising matter to cause the body member to project therefrom in a plane at substantially right angles to said face, said foot members projected one laterally from each face of the body providing a uniform support at opposite sides and ends of the body, and a finger rest at opposite sides of the body.

1,416,864. COASTER. RICHARD W. PARKES, San Francisco, Calif. Filed May 1, 1920. Serial No. 378,093. 2 Claims. (Cl. 280—87.5.)



1. A coaster of the character described, comprising a body, a rear wheel mounted upon said body, a front wheel, a rotatable shaft on the body and upon which said front wheel is mounted, a steering column pivotally connected

with said shaft, a steering rod fixed to said shaft and extending through said column, a steering wheel fixed to said rod, said steering rod being of angular construction at its lower end, said shaft having a slot in its upper end in which said angular portion of the steering rod is mounted.

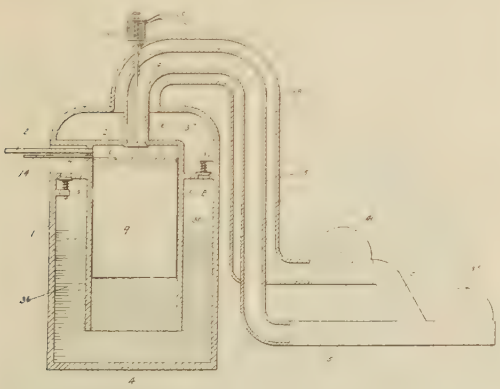
1,416,865. METHOD OR PROCESS OF REMOVING ENAMEL FROM ENAMELED METAL ARTICLES. WILLIAM E. PATCH, St. Louis, Mo. Filed July 28, 1921. Serial No. 488,228. 3 Claims. (Cl. 91—71.)

1. The method of de-enameling enameled metal articles which consists in subjecting the article in a closed oven to a temperature above the original baking temperature.

1,416,866. HOSE SUPPORTER. JOHN PATTERSON, Jr., Aldershot, England. Filed Mar. 5, 1921. Serial No. 449,987. 3 Claims. (Cl. 241—6.)

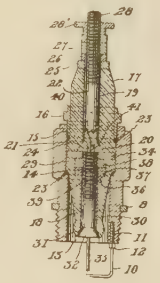
1. A hose supporter comprising a pad formed of a plurality of superposed layers of material, the upper layer provided with a looped end, resilient spring means attached to the looped end, a backing of elastic material, adjacent said spring means and secured to said pad and a gripping device secured to said spring means and elastic backing.

1,416,867. POWER-GENERATING SYSTEM. JOSHUA M. PHILBROOK, Scappoose, Oreg. Filed Dec. 12, 1918. Serial No. 266,467. 2 Claims. (Cl. 60—13.)



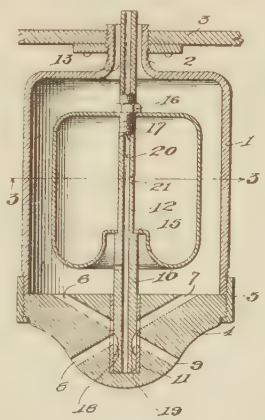
2. In a power generating system, the combination with an engine comprising a combustion chamber open at one end, a piston-float operatively disposed within its open end, and operative means for supplying and igniting explosive charges within said chamber, of a receptacle in operative communication with the piston-float and containing a power-storage fluid, of a liquid medium operatively disposed between the piston and the power-storage fluid that serves to support the piston within the combustion chamber and to transmit accretions of power imparted to it by impact of the piston to the power-storage fluid within the receptacle, and of two fluid motors in direct operative communication, one with the receptacle and the other with the interior of the combustion chamber, the former motor discharging into the source of supply of the latter whereby the two motors are compounded.

1,416,868. SPARK PLUG. STANLY P. PIETSZAK, Buffalo, N. Y. Filed Jan. 7, 1921. Serial No. 435,693. 1 Claim. (Cl. 123—169.)



A spark plug of the class described comprising a metallic shell, an upper and lower insulator section having a longitudinal bore, the lower end portions of the longitudinal bore in each section being outwardly tapered defining a socket in the ends of said insulator sections, an upper and lower electrode section being outwardly tapered at their lower ends for reception in the said sockets of the insulator sections, an angular lug upon the upper end of the lower electrode fitting within a socket in the enlarged lower end of the upper electrode, means for retaining the electrodes in the insulator sections and means for locking the insulator sections within the metallic shell.

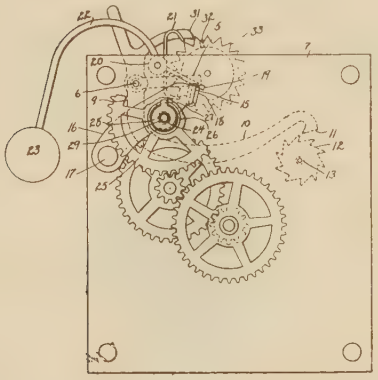
1,416,869. AUTOMATIC DISCHARGE VALVE. JOSEPH PITTMAN, Detroit, Mich. Filed Dec. 11, 1920. Serial No. 429,992. 4 Claims. (Cl. 137—103.)



1. In an automatic discharge valve, a casing, a valve block detachably connected to the lower end of said casing and provided with diagonal discharge passage ways, a

valve piston for controlling the discharge of condensation through said passage ways, a stem on said piston, a float on said stem for controlling the movement of the piston, and means for clamping said float against the upper end of said piston.

1,416,870. INTERMITTENT-ALARM CLOCK MOVEMENT. JAMES R. PUTNAM, Waterbury, Conn., assignor to Waterbury Clock Co., Waterbury, Conn., a Corporation. Filed June 16, 1921. Serial No. 477,917. 1 Claim. (Cl. 58—18.)



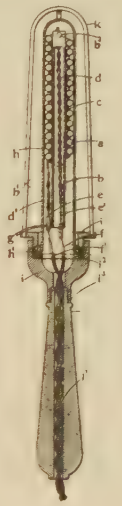
In an intermittent-alarm clock-movement, the combination with the front and rear movement-plates thereof, of an alarm-release spring secured to the front face of the front movement-plate and having its free end beveled and extended rearwardly therethrough, a rock-shaft pivoted between the said front and rear movement-plates, an intermittent-alarm lever mounted upon the said rock-shaft at the rear end thereof, adjacent to the forward face of the rear movement-plate, an intermittent-alarm wheel driven by the time-train and co-acting with the ends of the said lever, a verge-arbor pivoted between the said plates at a point close to the said rock-shaft, a verge mounted upon the said verge-arbor near the rear end thereof, a hammer-tail mounted in the said verge-arbor in position to co-act with the beveled end of the said alarm-release spring, and an alarm cut-out lever mounted upon the forward end of the said rock-shaft at a point closely adjacent to the rear face of the front movement-plate in position to engage with the beveled end of the said spring at a point forward of the engagement therewith of the said hammer tail and operating to normally hold the said rock-shaft in position to maintain the intermittent alarm-lever out of engagement with the intermittent alarm-wheel.

1,416,871. FLUX. BENJAMIN F. PYLE, Denver, Colo., assignor to The Pyle Metallurgical Company, Denver, Colo., a Corporation of Colorado. Filed Dec. 6, 1919. Serial No. 343,115. 2 Claims. (Cl. 148—23.)

1. The herein described flux consisting of soda, potash, fluorite, sodium chloride, silica, charcoal, coke, graphite, and carbon.

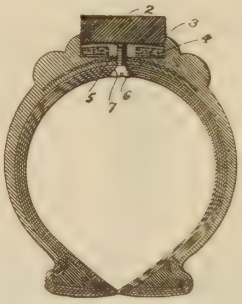
1,416,872. ELECTRIC HEATER. JOHN ROBERT QUAIN, London, England. Filed July 26, 1920. Serial No. 399,121. 7 Claims. (Cl. 219—41.)

1. An electric heater more particularly intended for use as an immersion heater, comprising a helically wound filament, a support carrying such filament, means for separating the convolutions of the filament, an outer and open silica casing separate from the said support, the said fila-



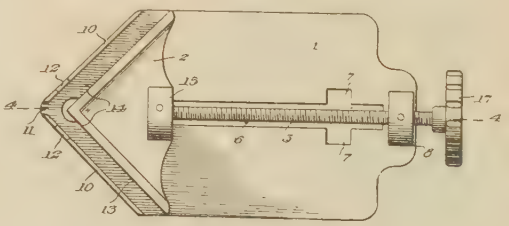
ment extending between the support and the outer casing and a carrier for the casing, substantially as described.

1,416,873. AUTOMOBILE AND MOTOR-CYCLE TIRE. GEORGE WILLIAM RAY, Atlantic City, N. J. Filed Nov. 8, 1921. Serial No. 513,834. 1 Claim. (Cl. 152—17.)



A tire having a recess passing circumferentially around its outer surface and having holes pierced through the center of the tire recess at regular spaced intervals, a tread composed of an outer layer of rubber and a backing of fabric and having embedded between the said subber and fabric, metal clamps tapped to receive a screw, the object being to pass the screws through the holes in the tire and into the clamps in the tread so binding the tread securely in the recess of the tire.

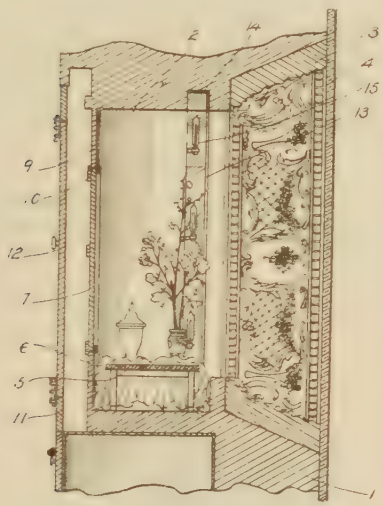
1,416,874. MITER CLAMP. GEORGE R. REEVES, Chicago, Ill. Filed June 4, 1921. Serial No. 475,133. 2 Claims. (Cl. 144—293.)



1. In a miter clamp, a body with angularly disposed flanges at one end of one side and between which flanges is an opening and also having at its opposite end a lug

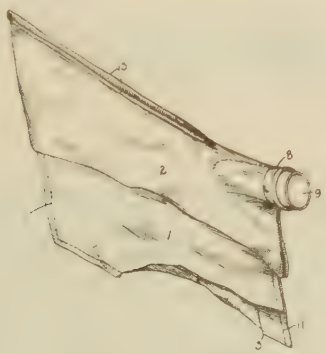
with a longitudinally disposed threaded bore, said body being longitudinally slotted, and the longitudinal slot having lateral portions adjacent to the said lug, a slidable member or jaw having angular portions corresponding to the flanges of the body and also having a lug at one side and a slide at its opposite side, said slide movable in the body slot and equipped with a transverse keeper portion, and a screw connected in swivelled manner to the lug of the slidable member or jaw and threaded through the lug on the body.

1,416,875. DISPLAY WINDOW. JOSEPH REICHL, Kansas City, Mo., assignor to Dean Hotel Company, Kansas City, Mo., a Corporation of Missouri. Filed July 12, 1920. Serial No. 395,659. 1 Claim. (Cl. 40—130.)



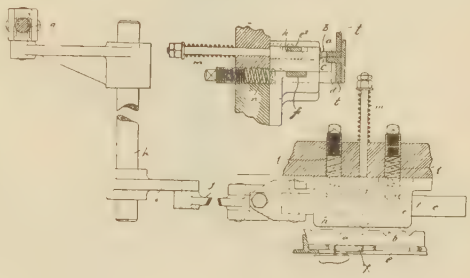
In a display device, a structure having a recess forming a sight opening and a front edge simulating a picture frame, a back for the recess having a picture thereon, an article-supporting stand between the frame and the back, the walls of the recess being grooved to house lighting devices, lighting devices in said grooves, and reflector devices in said grooves directing rays from the lighting devices over the article-supporting stand and restricting said rays from the back picture.

1,416,876. DUST COLLECTOR FOR PNEUMATIC CLEANERS. DANIEL B. REPLOGLE, Berkeley, Calif. Filed July 5, 1916. Serial No. 107,665. 25 Claims. (Cl. 183—44.)



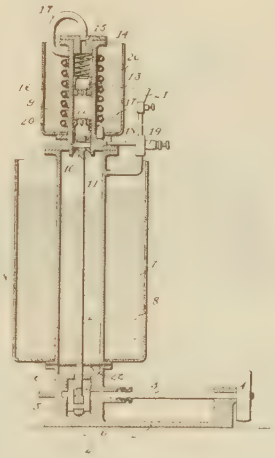
8. In a dust collector of the kind described having a cloth cover and mouth tube attached thereto, a separable porous paper bag operatively attached to said mouth tube and adapted to be closely enveloped by said cover.

1,416,877. PRESS FOR OPERATING UPON METAL AND OTHER SHEETS. CHARLES JOSEPH RHODES and THOMAS HENRY WEBB, Wakefield, England. Filed June 21, 1919. Serial No. 305,880. 3 Claims. (Cl. 164—117.)



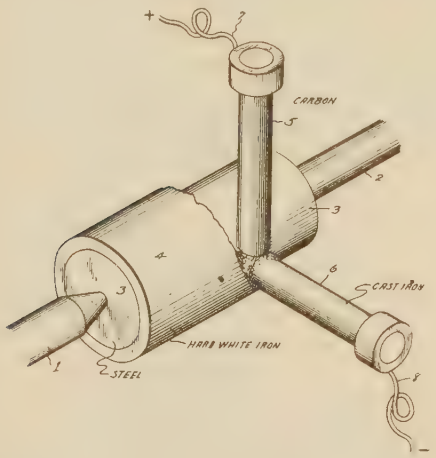
1. Sheet feeding mechanism for power presses and the like, including a carrier member mounted for movement in a right line and having spaced notches, a guide immovable longitudinally of the direction of movement of the carrier member, and a locating slide, arranged for movement in said guide and having means to engage the notches of said carrier member.

1,416,878. REFRIGERATING MACHINE. ARTHUR G. ROSS, Vancouver, British Columbia, Canada. Filed May 26, 1921. Serial No. 472,795. 3 Claims. (Cl. 62—115.)



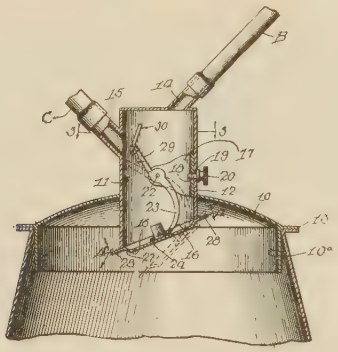
1. A refrigerating machine comprising a vertically elongated ammonia vessel, a pump cylinder in axial alignment and direct communication with the upper end of the said ammonia vessel, a condensing tube directly connected to the upper end of the pump cylinder and delivering into the upper end of the ammonia vessel, a crank case secured to the bottom and in axial alignment with the ammonia vessel, a crank rotatably mounted in said crank case, a piston in said pump cylinder, a connecting rod between said piston and said crank, said piston having a one-way valve and a back check valve in said pump cylinder for controlling the admission from the condensing tube to the piston substantially as shown and described.

1,416,879. PROCESS OF MAKING COMPOSITE METAL ARTICLES. JEAN FRANÇOIS REGIS ROUSSEAU, Indianapolis, Ind. Filed Apr. 15, 1920. Serial No. 374,176. 4 Claims. (Cl. 219—10.)



1. The process of producing a composite metal article which comprises welding ordinary cast iron to a suitable base of steel, localizing the heat of such welding to a relatively small section of the metals, and chilling the iron thereby to convert it into hard white iron.

1,416,880. MILKING MACHINE. NEALON D. RUTHERFORD, Lansing, Mich., assignor to United Engine Company, a Corporation of Michigan. Filed Apr. 26, 1920. Serial No. 376,529. 18 Claims. (Cl. 31—98.)



1. A vacuum chamber for milking apparatus having a valve controlled milk inlet, a valve controlled outlet, there being also a passageway leading through one wall of said vacuum chamber to an air exhausting device, and means for automatically closing one of said valves when the other valve is opened, comprising an arm extending between the said valves and being pivotally mounted intermediate thereof, and arranged in conjunction with one of said valves to form a baffle wall between the valve controlled milk inlet and the passageway adapted to lead from the chamber leading to the air exhausting device.

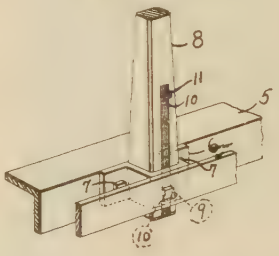
4. A vacuum chamber for milking apparatus having a milk outlet and a milk inlet, a gravity opened valve controlling the outlet, and a valve controlling the inlet operatively connected to the first named valve to operate reversely thereto.

7. A vacuum chamber for milking apparatus having a milk discharge valve yieldably held in open position by gravity, but shiftable to a closed position upon the exhaustion of air from said chamber, and a valve controlling the inlet of milk into said chamber and connected to the discharge valve to open when the discharge valve closes and to close when the discharge valve opens.

11. A vacuum chamber for milking machines, open at its lower end, a valve controlling discharge through the lower end of the vacuum chamber, a yoke supporting the valve having arms resiliently urged outward from each other, said yoke being disposed within the vacuum chamber and the arms resiliently engaging the wall thereof, and means for detachably engaging the yoke with the chamber wall.

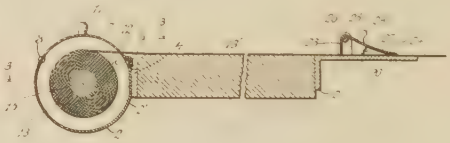
18. A vacuum chamber for milking machines, said chamber being vertically disposed and having an exhaust outlet at its upper end, a milk inlet adjacent its upper end and in its side wall, the lower end of the chamber being open and having its lower edge inclined downward and toward the wall having the milk inlet, a valve formed to close the lower end of the chamber, a support for said valve mounted within the chamber, and an arm operatively connected to the valve extending upward into the chamber and pivotally connected to the support and then extending upward and toward the inlet opening and formed to provide a milk inlet controlling valve gravity acting to hold the discharge valve open and the milk inlet valve closed, said discharge valve closing upon the exhaustion of air from the chamber and thereby opening the milk inlet valve.

1,416,881. STAKE LOCK. FRANK L. RUZICKA, St. Louis, Mo. Filed June 4, 1921. Serial No. 474,935. 2 Claims. (Cl. 280—147.)



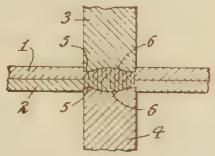
1. In combination with a stake pocket having a notch, a stake having a projection, the projection on said stake and the notch in said stake pocket being so positioned on their respective elements as to permit of selective engagement between said projection and said notch, and means of concealing the notch of said take pocket, and the projection on said stake.

1,416,882. CHIROPRACTIC SANITARY PAPER CONTAINER. NATHAN SANDALS, Jersey City, N. J. Filed June 26, 1920. Serial No. 391,958. 2 Claims. (Cl. 211—32.)



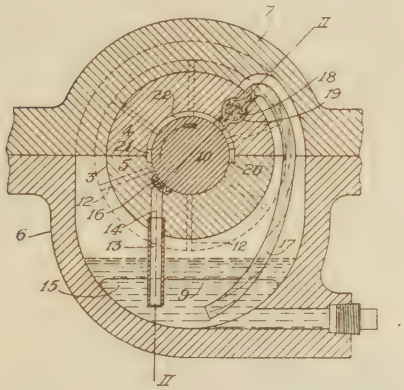
1. In a device of the character described, the combination with a support comprising a cylindrical box, the top wall of which is formed by a hinged cover section, said cover section being longitudinally slotted in alinement with the upper surface of said support, and means for supporting a roll of paper in the container, said means including a mandrel having a reduced end engaging in an opening in one end of the cylindrical box, the opposite end of said mandrel being formed with a socket, a screw threaded into an aperture in the adjacent end of the cylindrical box, and a pin on said screw projecting into the said socket, said last mentioned opening being large enough to permit of insertion of the mandrel therethrough.

1,416,883. METHOD OF SPOT WELDING. JACOB C. SANDER, Lynn, Mass., assignor to Thomson Spot Welder Company, Boston, Mass., a Corporation of Massachusetts. Filed May 10, 1920. Serial No. 380,082. 4 Claims. (Cl. 219—10.)



1. The method of spot welding consisting in assembling the work between annular shaped electrodes each having a slight depression in its contact face, passing an electric current from one electrode to the other and applying pressure whereby the electrodes which initially only contacted with the work annularly, ultimately contact with the work over their whole faces and leave a resultant bulge on the surface of the work resembling a rivet.

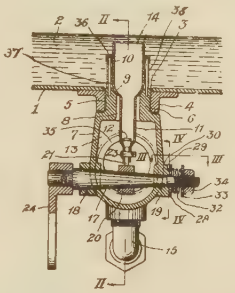
1,416,884. LUBRICATING JOURNAL BEARING. HENRY F. SCHMIDT, Swarthmore, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 20, 1920. Serial No. 360,189. 14 Claims. (Cl. 64—24.)



1. The combination with a journal, a bearing block having an oil receptacle in the lower portion thereof, and a bearing therefor having a lubricating means operating by virtue of the vacuum produced by the rotation of the journal in the bearing for supplying oil from said receptacle to the bearing of an auxiliary lubricating means independent of the first-named means for constantly supplying the space between the journal and the bearing with oil from the said receptacle.

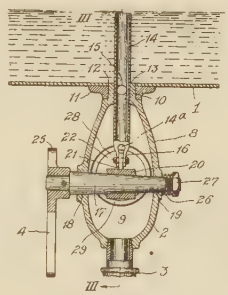
1,416,885. RESERVE-SUPPLY-CONTROLLING DEVICE FOR LIQUID RECEPTACLES. ANDREW J. SCHREINER, Cleveland, Ohio. Filed Apr. 16, 1920. Serial No. 374,461. 9 Claims. (Cl. 158—46.5.)

1. The combination with a receptacle adapted to contain liquid and having an outlet opening in the lower part thereof, of a tubular valve member extending through said opening provided with a shoulder adapted to be seated upon the wall surrounding said opening to form a fluid tight joint therewith, the end of said tubular valve member within said receptacle extending upward in said tank above the level of said aperture, the end of said tubular valve member which extends outward through said aperture being smaller in diameter than said aperture, said



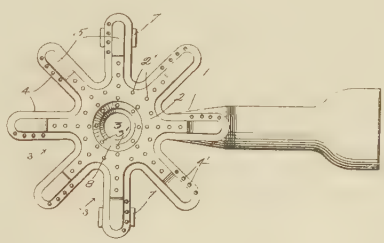
valve member being mounted for longitudinal movements in said aperture, and means for moving said valve member into and out of engagement with its seat upon said wall.

1,416,886. RESERVE-SUPPLY-CONTROLLING DEVICE FOR LIQUID RECEPTACLES. ANDREW J. SCHREINER, Cleveland, Ohio. Filed May 5, 1920. Serial No. 379,084. 9 Claims. (Cl. 158—46.5.)



1. The combination with a liquid receptacle provided with a substantially vertical outlet opening, of a valve housing secured to said receptacle, said housing having an aperture registering with said outlet opening, a tubular valve member in said aperture adapted to slide therein, one end of said valve member extending into said receptacle and having an outlet port, the other end of said tubular valve member having a port opening into a chamber in said houshing and means extending through the wall of said housing into said chamber and connected to said valve member for moving said valve member in said aperture to vary the height of said outlet port above the bottom of said receptacle.

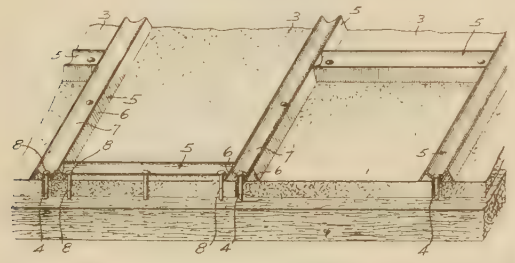
1,416,887. BURNER FOR GAS STOVES. JAMES G. SCOTT, Washington, D. C. Filed June 1, 1921. Serial No. 474,154. 1 Claim. (Cl. 158—116.)



A burner for gas stoves, including a flat top portion pierced by a central draft-opening, the said flat top portion being provided with a series of vertical perforations to project jets of flame vertically from the said flat top, the said top being also provided with a series of angularly arranged perforations disposed angularly with re-

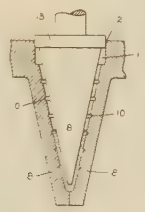
spect to the said top, to project jets of flame toward each other to a central point above the said central draft-opening, the said burner including a series of burner arms having downwardly and outwardly inclined sides, and provided with a series of perforations disposed in said arms angularly with respect to the vertical axis of each arm, to project jets of flame from the burner in a swirling manner, substantially as described and for the purposes set forth.

1,416,888. COVERING FOR JOINTS OF WALL BOARD. JOHN SCHUMACHER, Los Angeles, Calif. Filed June 11, 1921. Serial No. 476,895. 7 Claims. (Cl. 72—118.)



1. A covering strip for wall board comprising an integral strip of resilient material having a metal face with symmetrical sides upset therefrom inclined outwardly from each other in a direction away from said metal face so that the strip will be supported on its edges.

1,416,889. METHOD AND MEANS FOR MAKING CUP PASTRY. LEE C. SHARP, Plattsmouth, Nebr., assignor, by mesne assignments, to Alexander McLaren, Dayton, Ohio. Filed June 12, 1919. Serial No. 303,767. 34 Claims. (Cl. 107—58.)

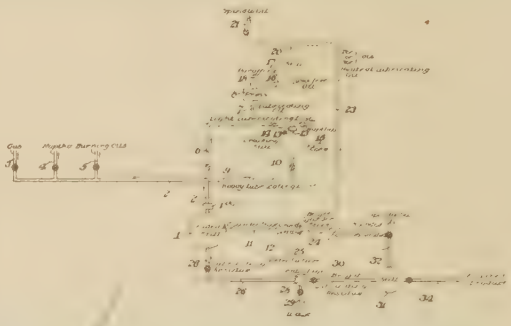


16. In apparatus of the character described, a female baking mold having a cavity provided with a throat at its mouth and a molding or die section beyond the throat, a core element adapted to enter and partially fill the molding cavity, means for plugging the throat before the core has reached its finally seated position against the escape of batter while permitting the escape of steam.

22. The method of making cup pastry in male and female baking bolds which consists in introducing batter to the mold, inserting the male mold into the female mold cavity in a manner which will distribute the batter to the extent desired and closing the mouth of the female mold cavity against the escape of batter while allowing for escape of steam, applying gradual pressure to the male mold to force it toward its final seated position, allowing the while for the escape of steam and then, when the steam has approximately all escaped, forcing the male mold to its final seated position and compressing the batter to the form desired.

1,416,890. METHOD OF REFINING PETROLEUM. PHILIP T. SHARPLES, St. Davids, Pa. Filed Mar. 12, 1920. Serial No. 365,135. 6 Claims. (Cl. 196—24.)

1. The method of treating a petroleum residue obtained by distilling off gas, naphtha and burning oils from crude petroleum without cracking the residue substantially, which consists in chilling the residue obtained thereby with precipitation of the wax therein; subjecting the chilled residue to centrifugal treatment adapted for separating wax from the residue, and separately discharging the separated wax and the wax freed residue continuously.



1,416,891. REFINING OIL. PHILIP T. SHARPLES, Merion, Pa. Continuation of application Serial No. 495,083, filed Aug. 24, 1921. This application filed Apr. 6, 1922. Serial No. 550,206. 9 Claims. (Cl. 196—24.)

1. The method of treating the residue obtained by distilling off lower boiling point constituents from crude petroleum which consists in distilling the residue so that the oil shall not be cracked substantially, treating the distillate to effect the precipitation of the wax and maintain the fluidity of the oil so that they can be separated by centrifugal force, and centrifugally separating and separately discharging the wax and the wax freed oil continuously.

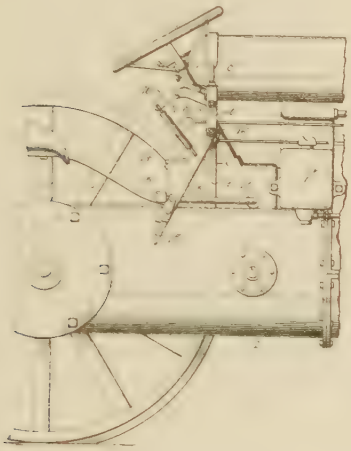
1,416,892. BELT BUCKLE. LOWELL W. SHIELDS, Rochester, N. Y., assignor to Hickok Manufacturing Company, Inc., Rochester, N. Y., a Corporation of New York. Filed Apr. 25, 1921. Serial No. 464,252. 5 Claims. (Cl. 24—194.)

1. In combination with a buckle body having a front plate and side flanges provided with guide slots, a clamping member having heads at opposite ends cooperating with the outer faces of the side flanges, and flattened faces of greater width than the slot adjacent said heads, cooperating with opposite walls of the slots, the clamping member between said flanges having a belt engaging projection cooperating with the inner face of the front plate to clamp a belt.

1,416,893. CLUTCH CONTROL FOR FORDSON TRACTORS. WILY B. SHORTER, Freedom, Okla., assignor to Ernest G. Evans, Hillsdale, Okla. Filed Mar. 23, 1920. Serial No. 368,013. 1 Claim. (Cl. 74—81.)

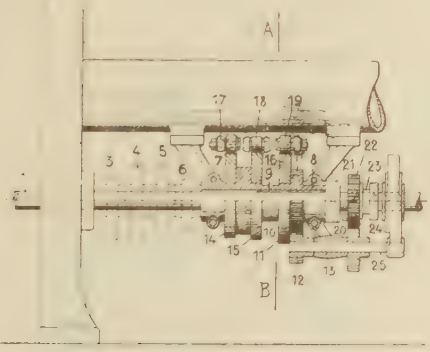
A clutch controlling attachment for tractors, comprising a supporting bracket removably secured to the dash-board of the tractor and including a portion which projects laterally and rearwardly toward the driver; a depending lever pivoted at its upper end to the bracket and having a notch in its free lower end, said lever being disposed in substantially the same vertical plane as the lateral portion of said bracket, a foot-operated clutch lever having a portion extending laterally across the depending lever at a point above said notch, but engage-

able in the notch when depressed so as to be retained thereby in depressed position; a spring connection between the depending lever and the lateral portion of the bracket tending to pull said lever in an upward direction



so as to hold it against the clutch lever at all times; and a pedal secured to the lower portion of said depending lever for depressing the same to disengage its notch from the clutch lever.

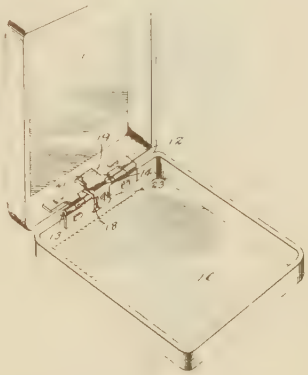
1,416,894. DEVICE FOR DRIVING THE SCALLOP MECHANISM IN EMBROIDERING MACHINES. GOTTWALT SIEBER, Plauen, Germany. Filed Sept. 10, 1921. Serial No. 499,859. 2 Claims. (Cl. 112—83.)



1. In an embroidering machine the combination with the main shaft, of means for driving auxiliary implements including a set of cams arranged co-axially with said main shaft and a speed reducing mechanism capable of being coupled to said shaft to transmit motion to said cams from said main shaft at a speed different from that of the latter.

1,416,895. SPRING-HINGE CONSTRUCTION. PARKER T. SIMMONS and RUSSELL I. RHODES, North Attleboro, Mass. Filed Mar. 3, 1920. Serial No. 362,893. 4 Claims. (Cl. 16—167.)

4. A spring device for hinged members comprising a plate having a central transverse enlargement and a transverse slot therein, a second plate inserted partly through the slot, said plates being bent adjacent the slot to form wings extending at an angle to each other, the wings of the two plates at the inner sides of the angle



being formed in their extremities to engage respective hingedly connected members.

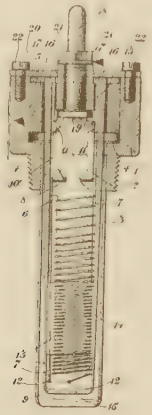
1,416,896. VEHICLE SUPPORT. PETER C. SIMMONS, Buffalo, Minn. Filed Dec. 18, 1920. Serial No. 431,728. 2 Claims. (Cl. 248—2.)

1. In an implement of the character named, a base, a tubular supporting standard mounted upon said base and having openings through its walls near the upper end, springs securely mounted within the standard, pins integral with the free ends of the springs in position to pass through the openings, a revoluble and slidable tubular standard mounted upon the supporting standard and having several shoulders formed in its walls to engage the pins when in proper positions, and to support the slidable standard and its load, and eccentrically formed walls adjacent to the shoulders whereby the revoluble movements of the outer standard will cause the pins to pass through the openings, or be forced out of them, as desired.

1,416,897. ELECTRIC HEATER. MAURICE SIMON, St. Louis, Mo. Filed July 12, 1920. Serial No. 395,451. 13 Claims. (Cl. 219—41.)

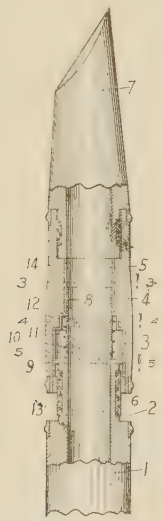
1. An electric heater, comprising a socket member having an open recess therein, a tapering case connected with the socket and opening thereinto, a heating element

including a resistance circuit and a tapering case sheathing the resistance circuit adapted to be inserted in said



first-named case, and means for effecting a wedging contact between the walls of said cases.

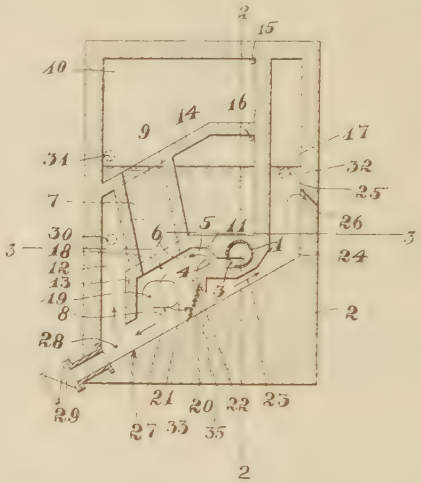
1,416,898. CLARINET BARREL. ALFRED J. SINCLAIR, Dayton, Ohio. Filed July 5, 1921. Serial No. 482,317. 8 Claims. (Cl. 84—386.)



1. The combination with a portion of an instrument and a barrel having one end mounted thereon and adjustable longitudinally thereof and having its other end adapted to receive a mouth piece, of a tube slidably mounted in said barrel, and means for retaining said tube in contact with the instrument during the adjustment of the barrel thereon.

1,416,899. PROCESS FOR PURIFYING LIQUIDS. CHARLES W. SIRCH, Los Angeles, Calif. Filed May 10, 1920. Serial No. 380,051. 7 Claims. (Cl. 210—8.)

1. The herein described process of purifying liquids consisting in passing the unclean matter through a narrow space into a larger space over the whole width of the passing stream so as to cause a quick showing down of the movement thereby promoting the rising of light matter and the sedimentation of heavier matter, removing the scum from the surface automatically and continuously when the stream passes a certain point by subjecting the surface to expansion over the force contained in the incoming stream, removing the sediment from the stream automatically and continuously when the stream passes a certain point by subjecting the sediment to expansion over the force contained in the passing stream, maintaining an even level in the surface of the passing stream by holding the stream continuously



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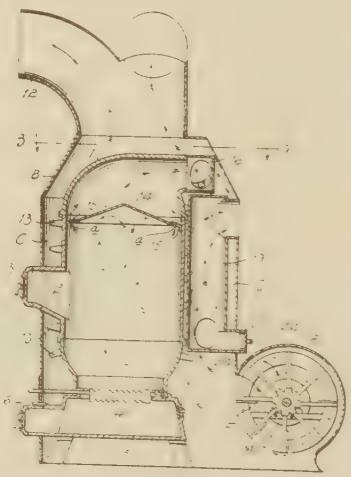
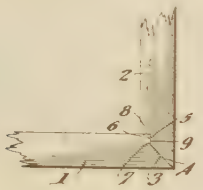
under pressure by the accumulating scum and sediment, and directing the cleared stream downwardly and rearwardly below the incoming stream so as to cause a dropping of especially heavy matter from the inpassing stream through the outgoing stream.

1,416,900. AIR-HEATING STOVE. FRED A. C. SKINNER, St. Louis, Mo. Filed July 27, 1921. Serial No. 487,930. 1 Claim. (Cl. 126—99.)



In an air heating stove, an inner stove, an outer casing spaced therefrom and forming an air-circulating chamber therewith, an outlet from the casing, a series of air deflecting spines radiating from the body of the stove and extending partially across the space between the stove walls and the outer casing for imparting their heat to the air and imparting a rotary motion to the air particles for thoroughly mixing the same, a conical baffle plate within the combustion chamber of the stove and spaced from the walls thereof for deflecting the gases of combustion against said walls, means for causing a circulation of air through the air chamber, the stove having an outlet for the waste gases at the top, a distributing head communicating with said outlet, pipes extending downwardly from said distributing head, and a flue between said pipes for receiving the waste gases, said distributing head, pipes, and flue being located in the air chamber.

1,416,901. MITER JOINT. Curtis E. Smith, St. Joseph, Mo. Filed May 31, 1921. Serial No. 473,821. 2 Claims. (Cl. 20—92.)

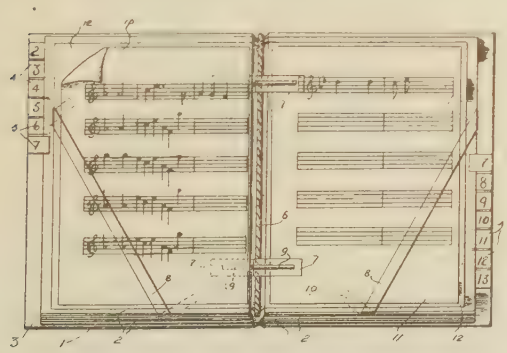


1. In a miter joint, a pair of members, the end of one member being provided with two surfaces disposed in intersecting planes and extending unbroken from the line of intersection to the opposite sides of said first member whereby a mitered end having a heel is provided, the end of the second member being provided with two faces disposed in intersecting planes and connected at their inner ends by a third plane surface, the first two of the second set of surfaces extending unbroken from the connecting surface to the opposite sides of the second member, whereby the second member is provided with a mitered end having abutment faces to receive the heel of the first member.

1,416,902. PRONGED EYE FASTENER. Elizabeth Jane Smith, Larchmont, N. Y. Filed Mar. 4, 1915. Serial No. 12,054. 2 Claims. (Cl. 24—227.)

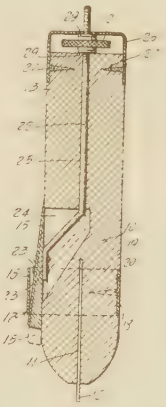
1. An eye fastener formed of integral sheet metal, with a hook-engaging bar, laterally-projecting base portions at the opposite ends thereof constituting a substantially H-shaped piece, and tapering prongs bent perpendicularly from the ends of said base portions, so that when passed through a fabric and flattened down they may clamp the fabric between themselves and such base portions, the hook-engaging bar being humped upwardly at its middle above the plane of said base portions, the lateral base portions being of a length approximating their distance apart, whereby the prongs enter the fabric at four widely separated points located in approximation to the corners of a square.

1,416,903. PORTFOLIO FOR SHEET MUSIC. Carl William Stalling, Kansas City, Mo. Filed Apr. 3, 1920. Serial No. 371,138. 1 Claim. (Cl. 129—1.)



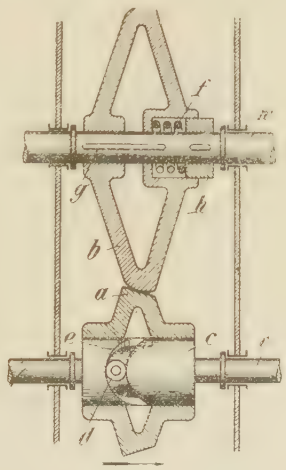
The combination with a book portfolio for loose sheets having a plurality of leaves, of a cable combined with the book and arranged between the leaves, and a clamping member slidably and rotatably mounted on said cable, said clamping member comprising a flexible transparent gripping member adapted for frictionally receiving said cable and for receiving loose sheets and a yielding clip mounted on the gripping member and adapted for holding the latter normally closed.

1,416,904. TOOL HOLDER. Peder O. Stangeland, Los Angeles, Calif. Filed Mar. 29, 1920. Serial No. 369,507. 1 Claim. (Cl. 145—47.)



A tool holder comprising a body formed with a groove to receive a tool, a handle on the body, a band extending around the grooved portion of the body, a wedge lying between the band and the body and movable in a direction longitudinal of the handle to cause gripping of the tool, a rod connected to the wedge and extending longitudinally through the handle, the body being slotted and the handle having a longitudinal bore to pass the rod, the end portion of the rod being screw-threaded, and a nut at the end of the handle threaded on the rod.

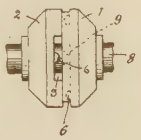
1,416,905. GEARING. Wilhelm Stoeckicht, Munich, Germany. Filed July 14, 1921. Serial No. 484,719. 4 Claims. (Cl. 74—26.)



1. Friction gearing, consisting of a driving shaft provided with a relatively-short peripheral groove; a driving wheel mounted immediately on the grooved portion of

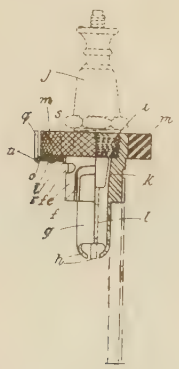
said shaft and having a single projection for coaction with said groove which is normally disposed at the center of the groove and is adapted to travel toward either end thereof when the rotation of the shaft commences, according to the direction of such rotation, and to maintain its end position throughout the continuation of the rotation; a driven shaft; and a wheel coupled to the driven shaft to rotate therewith and adapted to be driven from the driving wheel, the direction of said groove with relation to the axis of the driving shaft being such as to cause the driving wheel to move along said driving shaft toward the driven wheel so as to transmit to the latter a power which is proportional to the torque of the driving shaft.

1,416,906. SOIL-CULTIVATING TOOL. MATT STROM and ERICK HOGLUND, Duluth, Minn. Filed Mar. 8, 1921. Serial No. 450,595. 3 Claims. (Cl. 97—62.)



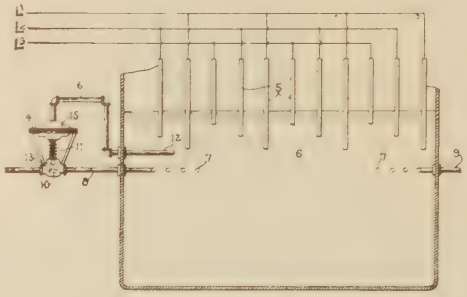
1. The combination with a two part hub of the class described having diametrically disposed recesses in each half thereof, of two part blades having shanks registrable within said cut-away portions, said shanks being provided with concavo convex tits thereupon registrable within depressions in one half and tits within the other half.

1,416,907. SPARKING PLUG. SYDNEY ERNEST TAYLOR, Westcliff-on-Sea, FREDERICK OLIVER ELLIS, Southend, and GEORGE EDWIN THOMAS ARCHER, Leigh, England. Filed June 15, 1920. Serial No. 389,204. 3 Claims. (Cl. 123—169.)



1. A spark plug including an attaching shell having a threaded nipple portion for engaging with the threaded opening in the motor and also having a socket provided at its upper edge with an interior annular locking portion, a plug carrying body adapted to be inserted in the socket, means for locking the plug in the socket against axial displacement, and a device mounted on the plug carrying body and having engagement with the interior locking portion of said shell.

1,416,908. FLUID RHEOSTAT. BENJAMIN F. TILLSON, Franklin, N. J. Filed Sept. 15, 1920. Serial No. 410,451. 5 Claims. (Cl. 219—57.)

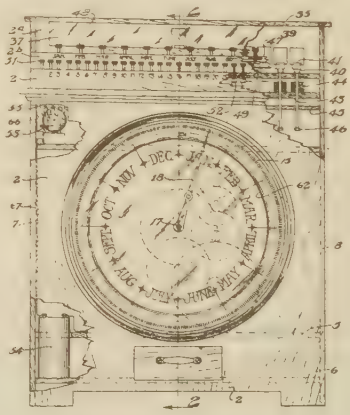


1. A fluid rheostat having means sensitive to variations in temperature of said rheostat to automatically compensate for such variations.

1,416,909. TICKET HOLDER. JAMES F. TOOHEY, Detroit, Mich. Filed Mar. 12, 1921. Serial No. 451,723. 3 Claims. (Cl. 206—39.)

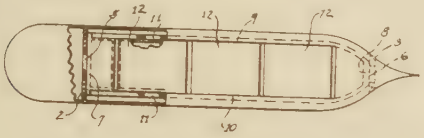
1. A ticket holder including a body provided with a recess to receive tickets, and a casing mounted on said body and having one end thereof extended to provide a closure engageable over said recess to prevent accidental displacement of the tickets from said recess.

1,416,910. TIME-CONTROLLED REMINDER APPARATUS. SAMUEL TOY, Boston, Mass. Filed Mar. 16, 1921. Serial No. 452,712. 6 Claims. (Cl. 161—5.)



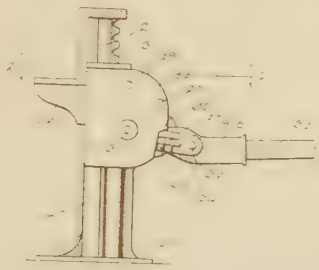
1. An apparatus of the character described comprising a plurality of electrically operated memoranda displaying instruments; circuits in which said instruments are arranged; a set of manually adjusted month switches and a set of manually adjusted day switches by means of which sets of switches said circuits are prepared for selective operation, and clock mechanism by which said circuits are selectively operated according to the adjustment of said switches.

1,416,911. AUTOMATIC STABILIZING DEVICE. ALFRED TRAPP, Milwaukee, Wis. Filed Sept. 21, 1921. Serial No. 502,273. 1 Claim. (Cl. 114—191.)



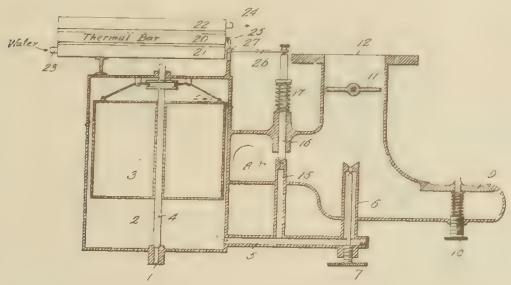
The combination with the hull of a ship, of a frame work pivoted longitudinally of said ship, and a plurality of cargo carrying units pivoted transversely of said frame work, said units being adapted to swing as one upon the longitudinal axis and to have independent pivotal movement upon their several transverse axes.

1,416,912. JACK. WILLIAM J. TRUMPOUR, Chicago, Ill., and WENCEL WIRTH, St. Joseph, Mich.; said Wirth assignor to said Trumpour. Filed Dec. 19, 1919. Serial No. 346,129. 15 Claims. (Cl. 254—95.)



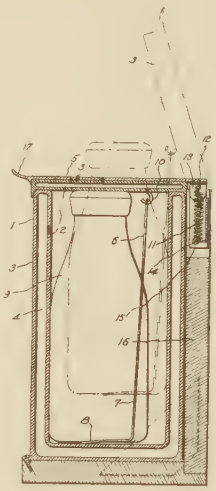
1. A jack comprising, in combination, with a standard having a rack bar mounted for vertical movement therein, a pinion pivotally mounted relative to the standard and meshing with the rack bar, a ratchet wheel of greater diameter than the pinion and rigid therewith, an operating handle pivoted co-axially with said pinion and having an actuating member for operatively engaging said ratchet, and a holding member engaging said ratchet for preventing rotation of the pinion.

1,416,913. CARBURETOR. EUGENE F. UTZ, Middletown, Ohio. Filed Mar. 6, 1918. Serial No. 220,777. 1 Claim. (Cl. 261—39.)



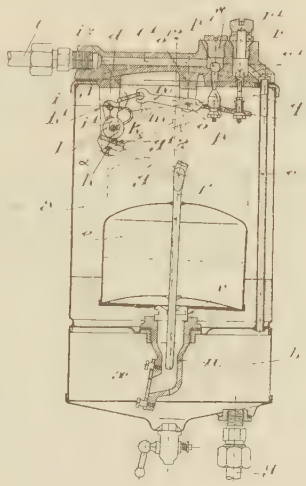
In combination with a carburetor, a main gasoline nozzle, an auxiliary gasoline nozzle vertically extending through the air chamber from a horizontal conduit from the bottom of a float chamber, said conduit supplying both said nozzles, a needle valve for closing the auxiliary nozzle, said needle valve including a stem having an interiorly threaded socket in its upper end, a set-screw adjustable in said socket, a spring for normally holding the needle valve in open position, a bell crank lever pivotally connected to the carburetor with one arm vertical and one arm horizontal and having an elongated opening in its horizontal arm through which the set screw passes, a horizontal thermal bar fixed at one end and having its other end engaged with the vertical arm of the bell-crank lever, and water legs on opposite sides of said thermal bar and in circuit with the cooling system of an internal combustion engine, said float chamber of substantially the height between said horizontal conduit and the top of said auxiliary nozzle stem and unitary with the housing for the said elements and provided on its top with a seat to receive said thermal bar.

1,416,914. RECEPTACLE. GEORGE A. VICKERY, Lexington, Mass. Filed Apr. 16, 1921. Serial No. 461,768. 3 Claims. (Cl. 232—41.)



1. A receptacle comprising a hollow body, a cover with a container stirrup carried thereby, a spring on the body adapted to hold the cover, stirrup and empty container in raised position, and when a full container is placed on the stirrup, to yield and permit the cover to close and container to drop into the receptacle.

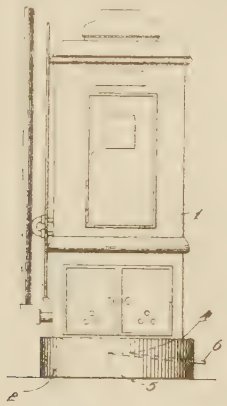
1,416,915. APPARATUS FOR FEEDING LIQUID FUEL TO INTERNAL-COMBUSTION ENGINES. STÉPHANE LOUIS JOSEPH VINDRIER, Lyon, France, assignor to the Firm Mathieu, Durand et Cie., Lyon, France. Filed Aug. 25, 1921. Serial No. 495,366. 2 Claims. (Cl. 158—36.)



1. In a device of the character described a container in which liquid rises and falls, a float in said container

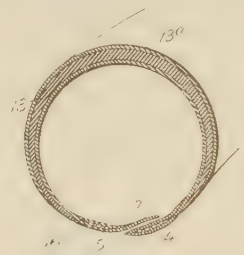
actuated by said rising and falling liquid, means for guiding said float a lever connected to said float and actuated thereby, a second lever or roller mounted thereon a spring pressing said roller on a surface of said first mentioned lever a third lever connected to said second lever and actuated thereby and valves actuated by said third lever.

1,416,916. BASE FOR HEATERS OR THE LIKE. CHARLES G. WALKER, Highland Park, Mich. Filed Aug. 1, 1921. Serial No. 488,877. 4 Claims. (Cl. 126—350.)



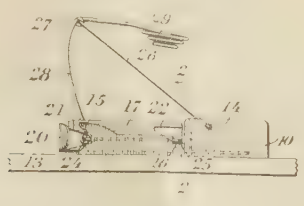
1. A base for heaters or the like, consisting of a concrete mass having means for locating the shell of the heater thereon and means therein for receiving the drippings from the heater.

1,416,917. INNER LINER FOR AUTOMOBILE TIRES. HERBERT N. WAYNE, Washington, D. C. Filed Aug. 21, 1920. Serial No. 405,004. 2 Claims. (Cl. 152—18.)



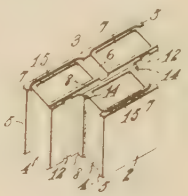
1. An inner lining for tire casings having its main body portion composed of fibrous material in mixed combination with rubber, and an outer covering of unvulcanized rubber.

1,416,918. BATTING DEVICE FOR BASEBALL GAME APPARATUS. ARTHUR W. WEEDEN, Quincy, Mass., assignor, by mesne assignments, to Weeden, Johnson & Co., Inc., a Corporation of Massachusetts. Filed Mar. 12, 1921. Serial No. 451,814. 5 Claims. (Cl. 46—61.)



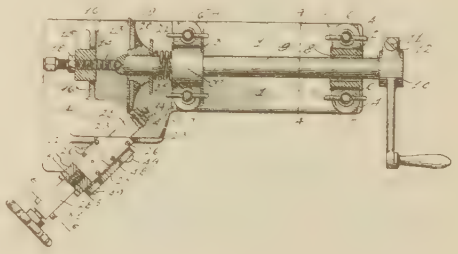
1. A batting device for baseball games, and the like, comprising a base having sides provided with lock-engaging notches, a projector slidably mounted in said base, said projector having its forward end adapted to receive the impact of the ball member to be batted, and having sides provided with openings having inclined wedge edges, a locking plate movable with the projector and provided with lock-engaging projections extending laterally therefrom through said wedge edged openings in the projector sides and adapted, in the rearward position of the projector relative to the base, to engage within the lock-engaging notches of the base, the wedge edges of said openings in the sides of the projector being adapted, in the rearward motion of the projector relative to the base due to impact of ball member on said projector, to release the lock-engaging projections of the locking plate from the lock-engaging notches of the base, and tension means interconnecting the locking plate and the base.

1,416,919. BUILDING BLOCK. JOHN A. WICKSON, Victoria, British Columbia, Canada. Filed Sept. 12, 1921. Serial No. 499,887. 5 Claims. (Cl. 72—41.)



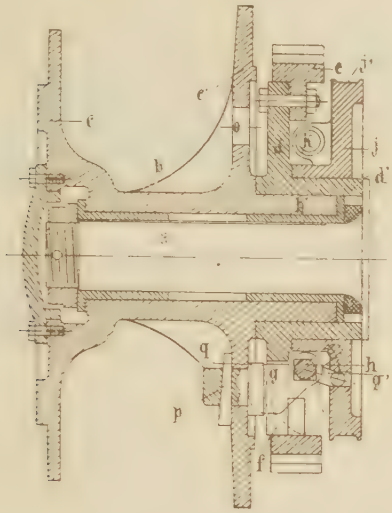
1. A building block the ends of which are half-lapped in vertical planes and having end shoulders the lap extensions of both ends being toward the same face of the block, each end of each lap extension and each end shoulder having portions removed within the outer faces of the blocks that will form recesses between the ends of adjacent blocks, and that portion of the block on which are the lap extensions having in its midlength a core space through its depth, the domensions of which correspond with those of the recesses formed between the ends of adjacent blocks.

1,416,920. VALVE TURNING AND GRINDING MACHINE. FREDERIC C. WILLIAMS, Coronado Beach, Calif. Filed July 1, 1920. Serial No. 393,400½. 4 Claims. (Cl. 82—1.)



1. A valve finishing tool comprising a base having head and tail stock bearings formed thereon and a vertical extension in alinement therewith, a valve stem adapted to receive a valve rotatably supported in said bearings, means on said stem for rotating the valve and stem, an adjustable centering pin supported in said extension for centering the valve in operating position, means for maintaining a resilient engagement between said valve and pin, a tool post rigidly held on said base, a tool holder movably disposed in said post for regulating the engagement of the cutting tool with the valve, and means for moving said tool holder, as set forth.

1,416,921. STEERING DEVICE FOR MOTOR VEHICLES. PETER M. WILSON, Marseille, France. Filed Aug. 15, 1921. Serial No. 492,257. 3 Claims. (Cl. 180—17.)



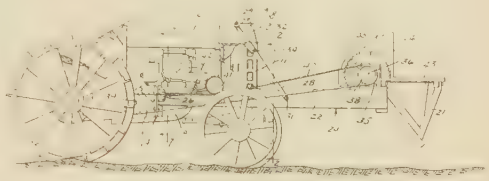
1. A steering device for motor vehicles of the type with independent driving wheels and cessation of the driving of one of the wheels, chiefly characterized by: two independent rims, an elastic coupling part between the two rims, a brake on one of them, an oscilalting driving part on the other rim constituting the driving rim, stops on the wheel in the track of the driving part, a device for bringing about disappearance of the driving part when the brake rim is stopped or locked.

1,416,922. SEPARATOR AND DRIER. CASIMIR J. WOOD, San Francisco, Calif. Filed June 4, 1919. Serial No. 301,700. 3 Claims. (Cl. 83—54.)

1. A device of the character described comprising a separating chamber in which granular material is introduced and suspended therein in a column of air, a valve casing arranged below the separator and communicating therewith, said casing having an inlet port therein for admitting said air to the separator and having an outlet port in a lower portion thereof, and a valve for controlling said ports whereby the separator will discharge through said valve casing and said outlet therein when the inlet port in the casing is closed.

1,416,923. SAWING ATTACHMENT FOR TRACTORS. SOLOMON A. WOOLDRIK, Sleepy Eye, Minn. Filed Apr. 20, 1920. Serial No. 375,197. 2 Claims. (Cl. 143—43.)

1. A sawing attachment for tractors including a frame affording an end extension for a tractor, means detachably supporting the frame from the tractor, a two-part hanger yoke adapted to straddle the tractor and having its ends secured to the frame forward of the tractor, resilient means connecting the members of the yoke, means inter-



mediately supporting the yoke in an oblique position from the tractor with freedom for endwise movement, a saw mounted on the frame outward of the yoke, and means for driving the saw from the tractor.

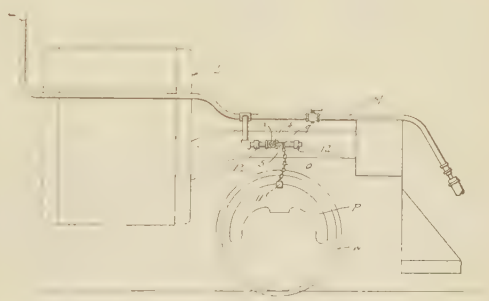
1,416,924. SOLDERING COMPOSITION FOR ALUMINUM. FLOYD A. ALBERTUS, Milwaukee, Wis., assignor of one-fourth to Clayton S. Flint, Milwaukee, Wis. Filed Dec. 3, 1919. Serial No. 342,264. 4 Claims. (Cl. 75—1.)

4. As a solder for aluminum, an alloy of a relatively large proportion of tin, a relatively large proportion of zinc, a relatively small proportion of aluminum, and relatively small proportions of antimony and phosphor tin, the proportions of antimony and phosphor tin being less than the proportion of aluminum.

1,416,925. BOILER-FUR PREVENTATIVE. OFFER LAURITZ KJÆR ANDERSEN, Struer, Denmark. Filed Aug. 29, 1916. Serial No. 117,535. 1 Claim. (Cl. 87—27.)

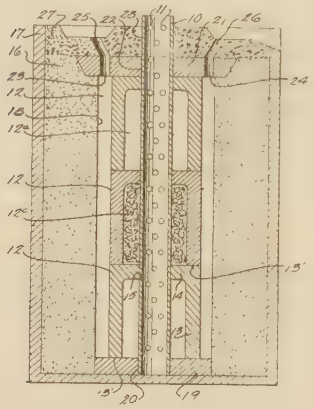
A solution for preventing boiler scale consisting approximately of 25 parts, by weight, of sodium hydroxide, 10 parts, by weight, of mangrove bark, 10 parts, by weight, of gambier, 30 parts, by weight, of catechu and 25 parts, by weight, of potato water.

1,416,926. SAFETY DEVICE FOR ROLLING STOCK. WILLIAM S. ARLESKIE, Pittson, Pa. Filed Dec. 10, 1921. Serial No. 521,387. 3 Claims. (Cl. 246—170.)



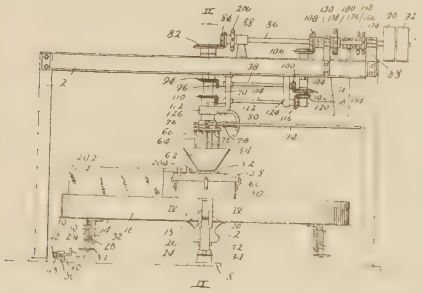
1. The combination with a vehicle, a mounting for a wheel therefor, and a pipe line for an air brake system carried by said vehicle; of a normally closed valve associated with said pipe line, an operating member for the valve, and a fragile connection between the operating member and the mounting for the wheel.

1,416,927. APPARATUS FOR MOLDING HOLLOW BODIES. PERCY A. E. ARMSTRONG, Loudonville, N. Y. Filed Jan. 22, 1921. Serial No. 439,184. 7 Claims. (Cl. 22—165.)



1. Apparatus for casting hollow bodies, comprising a mechanically strong core center and a plurality of collapsible mold core sections centered directly upon and supported by said member.

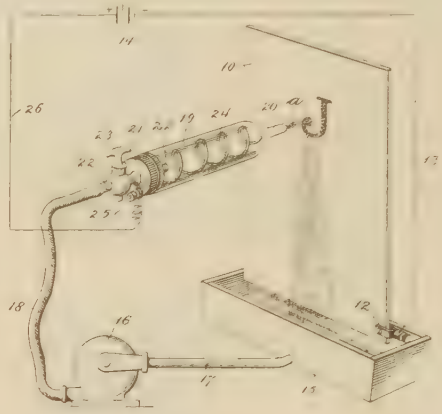
1,416,928. ORE CONCENTRATOR. JAMES B. ARTHUR, deceased, by Mary R. Arthur, executrix, Joplin, Mo. Filed Feb. 21, 1920. Serial No. 360,434. 5 Claims. (Cl. 83—87.)



1. In an apparatus of the character described, a rotary table, gates operably mounted on said table and provided with spouts, screw mechanism rotatable with the table for opening and closing said gates, and means independent of the table which said screw mechanism contacts and is actuated thereby during each revolution of the table.

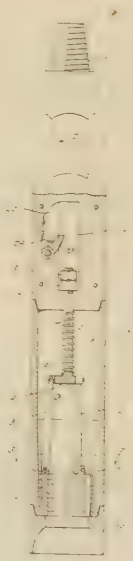
1,416,929. ART OF ELECTROLYSIS. WILLIAM E. BAILEY, Washington, D. C. Filed Nov. 7, 1921. Serial No. 513,471. 12 Claims. (Cl. 204—1.)

1. In the art of electrolysis, the method which comprises passing an electrolyte past an electrode connected to one pole of a source of current, forming a jet of said electrolyte and causing the jet to impinge on an article forming another electrode connected to the other pole of said source of current, thereby causing electrolytic action



at and closely adjacent to the point of impingement of such jet.

1,416,930. FISHING TOOL. DAVID A. BALL, Whittier, Calif. Filed Oct. 2, 1920. Serial No. 414,262. 2 Claims. (Cl. 294—102.)

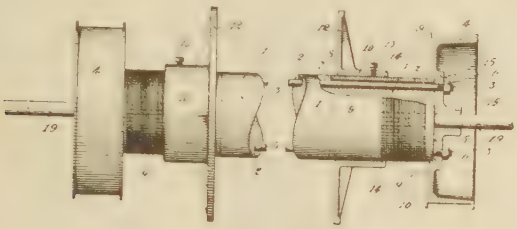


1. A fishing tool comprising a head, a socket detachably secured to said head having a tapered bore converging toward the mouth and provided with dove-tail slots on the tapered portion, slips having tenons mounted in said slots, a stem mounted in said socket so as to be freely slidable between te limits of its travel and connected to said slips by links and a detent disposed in said head to engage said stem and lock the latter adjacent the upper limit of its travel.

1,416,931. WARP BEAM AND ANALOGOUS DEVICE. ARTHUR BALTHASAR, Montclair, N. J. Filed Aug. 13, 1921. Serial No. 491,919. 9 Claims. (Cl. 139—56.)

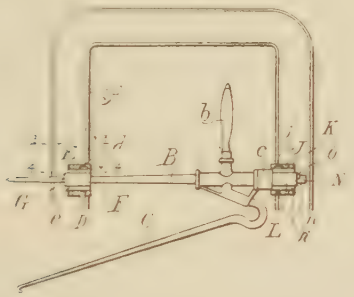
1. A roll having radially projecting, annular members, the hub portions of said members having internal smooth, true-cylinder, bearing surfaces and smooth, metal, true-

cylinder bearing surfaces on the roll, fitting said hub surfaces very accurately, the length of said metal bearing surface on the roll being equal to or greater than the desired range of adjustment of the flanges, and, beyond said



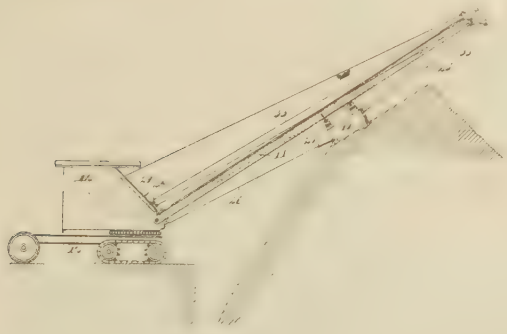
smooth bearing surfaces on the roll, and coaxial therewith, a threaded surface, the thread being depressed to a smaller radius than said smooth surface of the roll, and means engaging said threads arranged to force said hub and flange away from the end of the roll.

1,416,932. MAIL-BAG CATCHER. RICHARD H. BARNITZ, Washington, D. C. Filed Dec. 16, 1920. Serial No. 431,149. 4 Claims. (Cl. 294—21.)



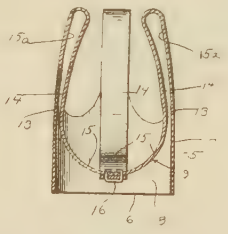
1. In a mail bag catcher, the combination with a fork having a straight portion, of devices for mounting the fork by engagement with said straight portion comprising a plate or base having projecting flanges, a block pivotally supported between the flanges of the plate and having a passage admitting that said straight portion of the fork and whereon the fork may be swung into the car, means for supporting the butt of the said straight portion of the fork, the said supporting means and the said butt having devices for limiting the rotary and longitudinal movements of said butt.

1,416,933. EXCAVATOR. HENRY L. BARTON, Gary, Ind. Filed May 9, 1919. Serial No. 295,898. 12 Claims. (Cl. 214—102.)



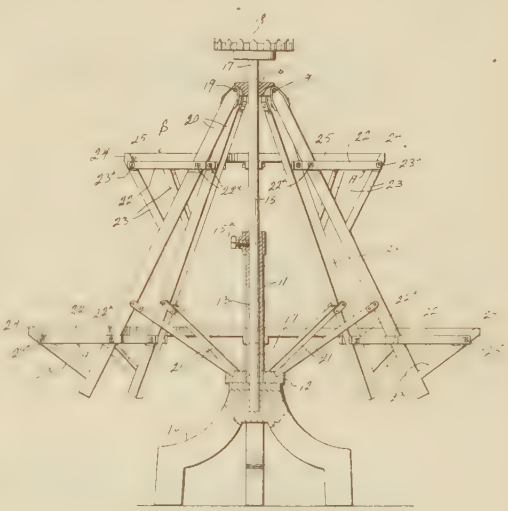
1. An excavator comprising a boom; a wheeled carriage mounted to travel on said boom; a scoop conveyor pivotally mounted at its rear end on said carriage; a guide roller at the forward end of said scoop resting loosely against the under side of said boom; an operating cable connected directly with the forward end of said scoop to draw said scoop through its operative movement; and an operating cable operatively connected to draw said scoop through its inoperative movement, substantially as described.

1,416,934. EGG CONTAINER. MAX F. BIERND, Miami, Fla. Filed July 2, 1921. Serial No. 482,210. 5 Claims. (Cl. 217—24.)



1. An egg container embodying a supporting member, arms carried by and extending from said supporting member, and a resilient container suspended between the arms in spaced relation to the body member.

1,416,935. DISPLAY STAND. FREDERICK C. BLOOM, Norwood, Ohio. Filed Jan. 11, 1922. Serial No. 528,478. 2 Claims. (Cl. 211—20.)

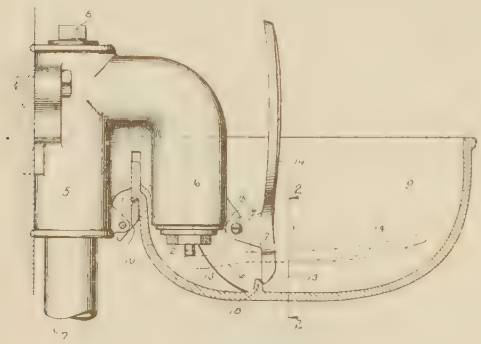


1. In a stand of the type described, a rotatable support, a plurality of arms pivotally connected at their upper ends with said support, shelf supports carried by each of said arms and a brace having a portion extending above the upper surface of the shelf support likewise carried by each arm, and shelf sections disposed intermediate adjacent arms and having their ends supported by corresponding supports thereof, the ends of said shelf sections being each provided with a notch partially receiving the portions of said braces projecting above the upper surface of the supports.

1,416,936. STOCK-WATERING DEVICE. FRANK H. BOGDA, Horicon, Wis. Filed Sept. 30, 1920. Serial No. 413,696. 3 Claims. (Cl. 119—75.)

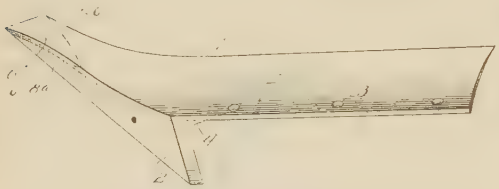
1. In a device of the class described, the combination of a supply pipe provided with a discharge nozzle, a valve adapted to control said nozzle provided with a valve stem,

a valve actuating member comprising a treadle pivotally secured to said nozzle and provided with an extension adapted to engage said valve stem to open said valve, and



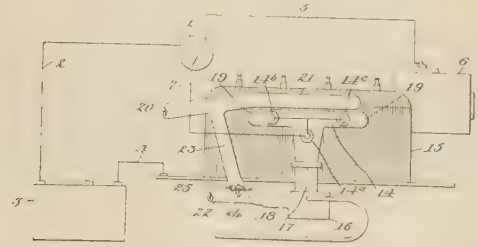
a bowl detachably secured to said nozzle and provided with a projection adapted to engage said extension to render said treadle inoperative.

1,416,937. PLOWSHARE. JOHN C. BOHMKER, Bradley, Ill., assignor to Sears, Roebuck and Co., Chicago, Ill., a Corporation of New York. Filed Mar. 27, 1919. Serial No. 285,558. 2 Claims. (Cl. 97—22.)



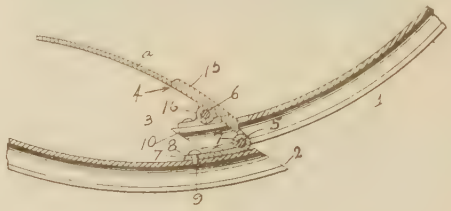
2. A plow share constructed to provide a point having a central reinforcing metallic core, and an outer wear-receiving sheath, said share comprising a landside of relatively soft metal constituting at its forward end the core of the point, a share blade of hardened material welded upon the upper side of the landside, and a wear-receiving member also of hardened material and welded to the landside with a portion abutting the share blade and the outer surface of such abutting portion flush with the outer surface of the landside rearwardly of said member.

1,416,938. VAPORIZING DEVICE FOR FUEL OILS. ROBERT LEE BOWMAN, Knoxville, Tenn. Filed Oct. 17, 1918. Serial No. 258,602. 2 Claims. (Cl. 219—38.)



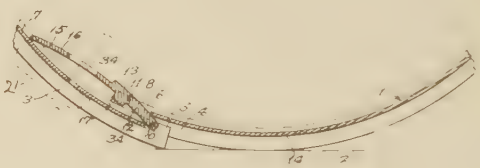
1. In combination with the exhaust and intake manifolds of an internal combustion engine, the latter including a carbureter; valve-controlled means capable of supplying heated air to the carbureter from the exhaust manifold under certain conditions, and electrically operated means for heating the carbureted air in the manifold under other conditions, said means including suitably introduced resistance elements with a common source of energy.

1,416,939. DEMOUNTABLE TIRE RIM. CHARLES GARLAND BRIDEN, Los Angeles, Calif., assignor of one-half to Homer Laughlin, Jr., Los Angeles, Calif. Filed Oct. 1, 1918. Serial No. 256,613. 3 Claims. (Cl. 301—33.)



1. The combination with a demountable tire rim in the form of an open ring having one end thereof slotted, so that, when the rim is expanded, an opening is formed which is bounded by the unslotted end of the rim, the prongs on the sides of the slot and the end wall opposite to the unslotted end, of a lever adapted to expand or to contract the rim and having on its outside a boss adapted to snugly fit said opening, said lever being pivotally seated adjacent to the unslotted end of the rim and also being pivotally seated opposite to said boss, so that, when the rim is expanded, the boss is tightly held in said opening and thus constitutes means that aids in preventing lateral and longitudinal displacement of the rim ends.

1,416,940. DEMOUNTABLE TIRE RIM. CHARLES GARLAND BRIDEN, Los Angeles, Calif., assignor of one-half to Homer Laughlin, Jr., Los Angeles, Calif. Filed Feb. 18, 1919. Serial No. 277,879. 7 Claims. (Cl. 301—33.)

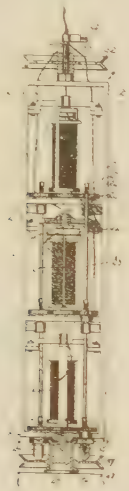


1. An open ring demountable tire rim slotted at both ends and provided near the inner end of one slot and at about equidistance from the outer end of the other slot with pintle holes in the body of said rim; pins in said pintle holes and extending transversely of the slots; and a lever having a thickened portion pivoted on said pins respectively; said thickened portion being practically equal in length to the length of both slots and filling the open spaces formed by said slots and having a concave face conforming to the curvature of said rim when the rim is expanded; said lever terminating in a handle having about the same length as the thickened portion so that when the handle is turned into collapsible position the ends of the rim may be lapped close to each other.

1,416,941. TWISTER. RICHARD W. BROCKWAY, Moodus, Conn., assignor to himself and Francis J. Meckensturm, a Partnership doing business under the name of Brockway & Meckensturm Machine Company, Moodus, Conn. Filed Mar. 20, 1920. Serial No. 367,527. 4 Claims. (Cl. 117—46.)

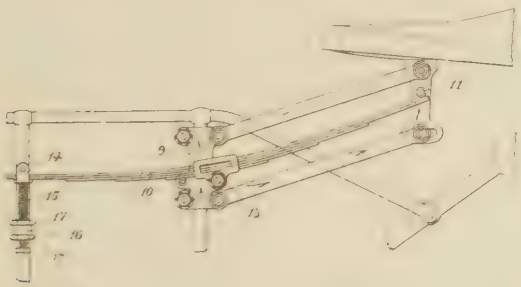
1. A rotatably mounted twister frame, a plurality of bobbins mounted for twisting rotation on said frame,

shafts rotatably mounted on said frame on opposite sides thereof, means comprising a frictional driving connection



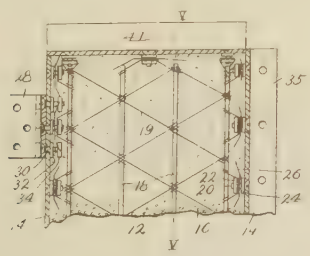
between said shafts and each of said bobbins, and means for driving said shafts.

1,416,942. CYCLE, MOTOR-CYCLE, AND ANALOGOUS SADDLE. BOULTBEE BROOKS, Birmingham, England, assignor to J. B. Brooks and Company, Limited, Birmingham, England. Filed Aug. 11, 1921. Serial No. 491,361. 5 Claims. (Cl. 208—100.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



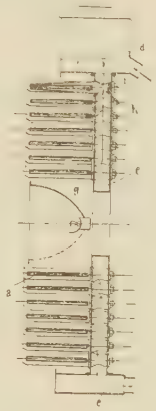
1. A cycle saddle comprising a saddle top, an attachment bracket, means for securing the attachment bracket to the carrier of the machine, depending members carried by the saddle top, parallel-motion links carried by the attachment bracket and connected to the depending members, and a leaf spring carried by the attachment bracket and supporting the saddle top.

1,416,943. FIREPROOF DOOR. WALTER C. BROUGHTON, Kansas City, Mo. Filed July 5, 1921. Serial No. 482,377. 4 Claims. (Cl. 72—97.)



1. A door structure consisting of a rectangular metallic frame, bolts spaced apart and extending into said frame, nuts threaded upon said bolts, wires connected to said nuts and draw taut thereby, and suitable material filling said frame.

1,416,944. RADIATOR CONSTRUCTION. JEAN BAPTISTE DOMINIQUE LÉON CHARDARD, Paris, France. Filed Sept. 20, 1919. Serial No. 325,205. 2 Claims. (Cl. 257—125.)



1. A radiator construction, comprising upper and lower headers; a series of detachable radiator elements arranged in nested parallel relation, each pair of adjoining elements being spaced apart to enable the passage of air therebetween; and a vertical collector embodying non-communicating upper and lower parts, one connected to the upper header and the other to the lower header; each radiator element communicating with both collector parts.

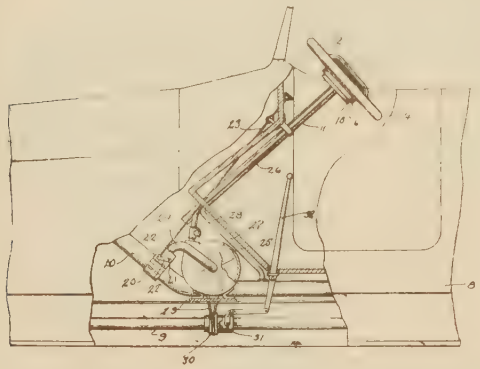
1,416,945. MOTOR-VEHICLE RADIATOR. JEAN BAPTISTE DOMINIQUE LÉON CHARDARD, Paris, France. Filed Mar. 24, 1920. Serial No. 368,294. 5 Claims. (Cl. 257—129.)

1. An automobile radiator unit comprising, in combination with the hot and cold water headers, a union rigidly attached to each header; a junction pipe connected to each union; a plurality of water-circulating elements connected at opposite ends to said junction pipes; a connecting rod extending through each junction pipe and the corresponding union for fastening the two together, each rod being rotatable from the exterior of the radiator unit, and means carried by each rod and operable by the rotation thereof for controlling communication between the junction pipes and the unions.

1,416,946. STEERING-WHEEL HEATER. LAWRENCE J. COBUS, Milwaukee, Wis. Filed July 9, 1920. Serial No. 394,976. 3 Claims. (Cl. 237—12.3.)

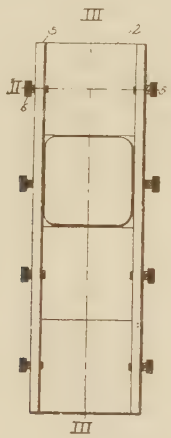
3. A device of the character described, comprising a controlling member, inlet and outlet pipes connected to

the controlling member, a fan having an intake and an outlet leading therefrom, a valve controlled passage connecting the fan intake with the exhaust of the



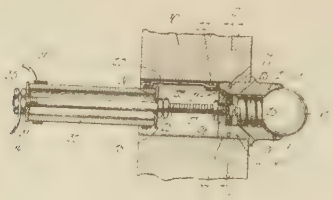
engine in connection with which the device is employed, and a tube connecting the fan outlet with said inlet pipe, whereby the engine exhaust gases will be rapidly circulated through the controlling member.

1,416,947. LENS-FORMING PROCESS. GILBERT S. DEY, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Corporation of Massachusetts. Filed Jan. 3, 1920. Serial No. 349,292. 11 Claims. (Cl. 49—79.)



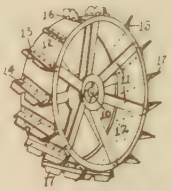
1. As an article of manufacture, a dropped toric ophthalmic lens blank having axis designations fused thereon by the heat of the dropping operation.

1,416,948. COMBINATION SOCKET AND RESISTANCE. ALFRED H. DONAHOE, Chicago, Ill., assignor to Associated Engineers Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 7, 1921. Serial No. 450,437. 13 Claims. (Cl. 219—49.)



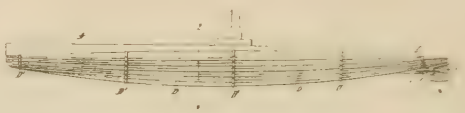
1. In a device of the character described a lamp socket, a rod-like member having one end thereof secured within said socket and forming the central contact thereof, and a resistance element mounted on and surrounding said rod-like member rearwardly of said socket.

1,416,949. TRACTOR WHEEL. EUGENE J. FARKAS, Detroit, Mich., assignor to Ford Motor Company, Detroit, Mich., a Corporation of Delaware. Filed Aug. 4, 1920. Serial No. 401,269. 2 Claims. (Cl. 301—44.)



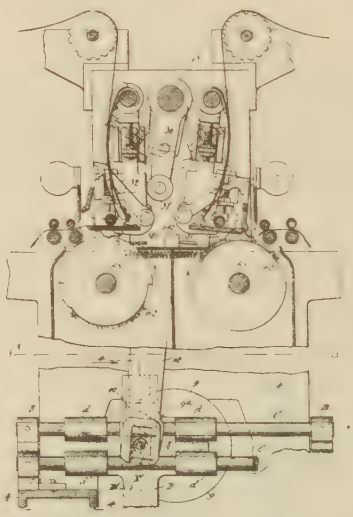
1. In a traction wheel, a lug attached to the periphery of the wheel, an auxiliary lug attached to said first lug having fastening ears and traction ears, the space between the fastening ears being of substantially the same size and shape as the traction ears.

1,416,950. SHIP PROTECTION. HAROLD J. W. FAY, Westboro, Mass., assignor to Submarine Signal Company, Portland, Me., a Corporation of Maine. Filed Aug. 26, 1918. Serial No. 251,417. 3 Claims. (Cl. 114—15.)



1. Mechanism of the kind described comprising a vessel, a source of compressed air located thereon, and means whereby such compressed air may be delivered at points about said vessel to serve as an absodbent to compressional waves originating in said vessel, said means comprising a series of elastic tubes located at different levels about the vessel's sides and connections between said tubes and said compressed air source.

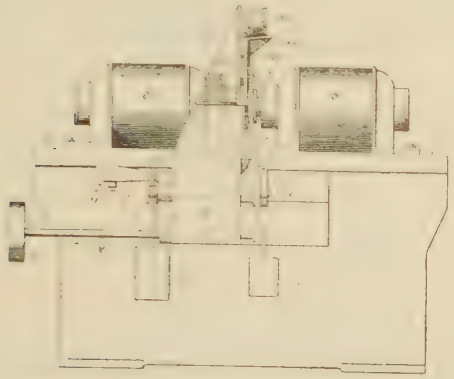
1,416,951. COMBING MACHINE. JOSEPH FOSSEL, Grafton, Mass., assignor to Alsatian Machine Works, Limited, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 15, 1921. Serial No. 437,423. 3 Claims. (Cl. 19—118.)



1. In a machine of the kind described, in combination with the nipper mechanisms, means for operating them alternately comprising a rock shaft, an arm mounted to

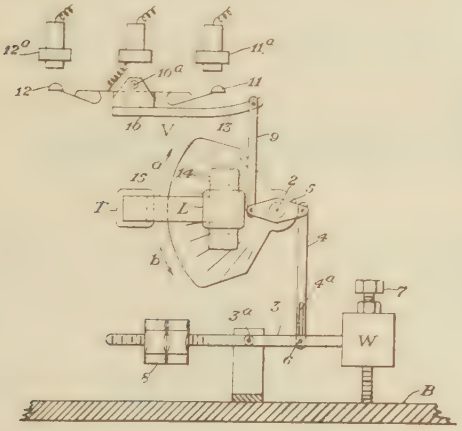
rock therewith and adapted to engage and operate said nipper mechanisms, and means for rocking said rock shaft comprising a crank disk, a crank pin thereon, a pendulum lever mounted on said rock shaft, and means connecting said crank pin and said pendulum lever whereby said lever will be given an oscillation equal in regard to time and amplitude in each direction about said rock shaft.

1,416,952. RING-GRINDING MACHINE. RALPH D. GARDNER, Beloit, Wis. Filed Dec. 9, 1920. Serial No. 429,314. 7 Claims. (Cl. 51—116.)



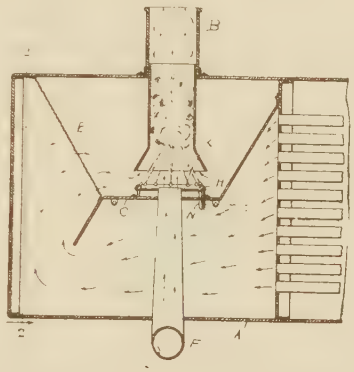
1. In a grinding machine, the combination of a pair of opposed grinding tools, a chute extending between said tools, and means for feeding objects along said chute by a step by step movement so that the objects are operated upon by the tools at one side of a vertical central plane extending therethrough and subsequently by the tools at the opposite side of said plane.

1,416,953. THREE-POSITION RELAY. ROBERT M. GILSON, Pittsburgh, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed June 26, 1919. Serial No. 306,807. 5 Claims. (Cl. 200—91.)



4. A relay comprising a member mounted to move in opposite directions from an intermediate position to two extreme positions, and biased by its own weight to move from one extreme position to the other extreme position, a counterweight, means interposed between said counterweight and said member for raising said counterweight when the member moves from its intermediate position to its said other extreme position, but for permitting movement of said member from its intermediate position to the first-mentioned extreme position without interference by said counterweight, the weight of said member being depended upon to return the member from the first-mentioned extreme position to the intermediate position, means for moving said member to its extreme positions in opposition to the forces biasing it to the intermediate position, and contacts controlled by said member.

1,416,954. NOISELESS BLOWER FOR LOCOMOTIVES. HUBERT E. HARRIS and LEE O. SWAIM, Atlanta, Ga., assignors of one-third to J. F. Pickard, Atlanta, Ga. Filed June 23, 1919. Serial No. 306,013. 2 Claims. (Cl. 162—4.)

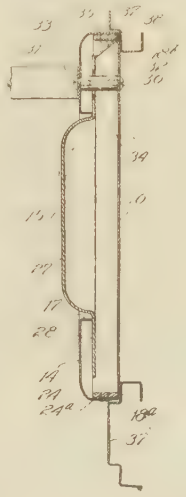


1. The combination with a locomotive smoke box of a stack leading therefrom and provided with a funnel at its inlet end and a jet ring the center of which lies in the extended axis of the stack, said jet ring provided with nozzles inclined toward the axis in position to deliver actuating fluid in directions parallel to the walls of the funnel and lying in a cone the apex of which is within the stack.

1,416,955. PROCESS FOR REFINING CRUDE CARBON. CHARLES FREDERICK CHRIS HERTING, Berkeley, Calif. Filed Oct. 4, 1921. Serial No. 505,277. 7 Claims. (Cl. 134—60.)

6. The process of refining crude lamp black which consists in boiling the same in an alkaline liquid, heating the product with a sulphuric acid until it changes to a thick paste and adding the paste to a saline solution.

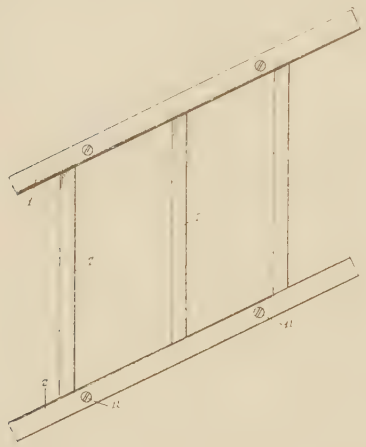
1,416,956. STOVE CONSTRUCTION. RUDOLPH HOFFMAN, Kankakee, Ill., assignor to Sears, Roebuck and Co., Chicago, Ill., a Corporation of New York. Filed Sept. 13, 1920. Serial No. 409,771. 19 Claims. (Cl. 126—190.)



1. In a stove construction, a door comprising a frame having inner and outer inturned edge portions, the outer

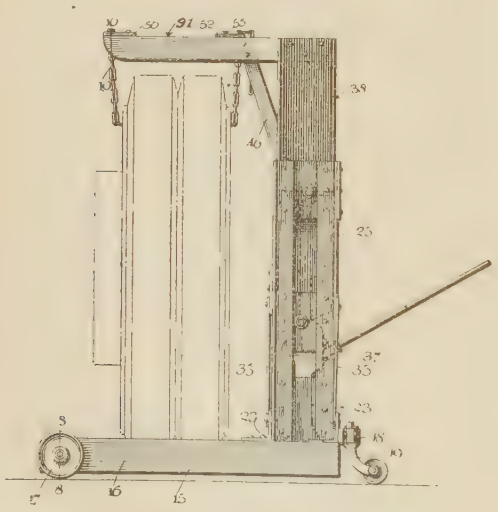
portions having associated therewith a rigid reinforcing bar, a panel engaging at its side edges with the inner edge portions of the frame, and a back plate mounted in spaced relation with reference to said panel.

1,416,957. BALUSTER-RAILING CONSTRUCTION. ARTHUR SHERIDAN HUGHES, Mansfield, Ohio. Filed May 26, 1921. Serial No. 472,787. 8 Claims. (Cl. 20—10.)



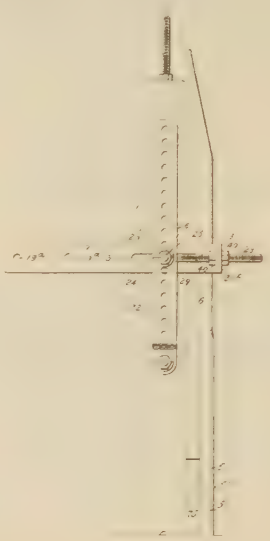
1. In a baluster railing construction, the combination of a plurality of spaced rails placed in superposed relation and provided with a plurality of spaced openings, a plurality of spaced parallel vertical bars, the ends of each bar passing through oppositely disposed openings in the rails, parallel strips secured on opposite sides of the bars, and means for securing the strips to the sides of the rails.

1,416,958. PORTABLE CRANE. EMMOR H. KELLEY and GEORGE A. STEWART, Jr., South Brownsville, Pa. Filed Feb. 5, 1921. Serial No. 442,854. 10 Claims. (Cl. 212—140.)



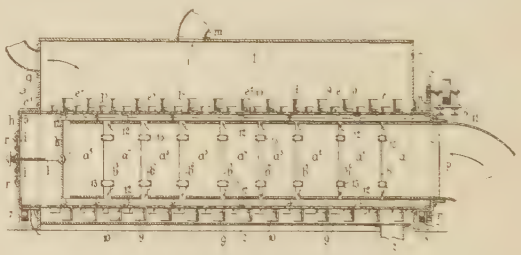
1. A portable crane comprising a standard, a lifting member slidably carried thereby and inclusive of a pair of spaced side bars, said lifting member being provided with a pair of angle bars connected to said side bars and having inwardly directed flanges constituting a contact element for the head of a jack.

1,416,959. CAM-HOLDER FRAME. MALCOLM R. KESTER, Chicago, Ill. Filed Mar. 25, 1921. Serial No. 455,427. 7 Claims. (Cl. 187—1.)



5. In an elevator installation of the character described, the combination with the car and bracket members movable with and projected laterally from the car: of a frame supported in vertical position on the bracket members, a pair of opposing cam sections, means for adjustably mounting the said sections along one face of the frame toward or from each other and a gap closing element whose opposite ends engage the corresponding cam surface ends of the separated cam sections.

1,416,960. DRIER. KARL LADISCH, Meissen, Germany. Filed Aug. 15, 1921. Serial No. 492,582. 4 Claims. (Cl. 34—44.)



3. In a drier, a rotatable perforated heating drum, in combination with a concentric distributer tube therein spaced from said drum, said tube composed of a number of spaced sections, and means to adjustably secure the sections together to vary the width of said spaces

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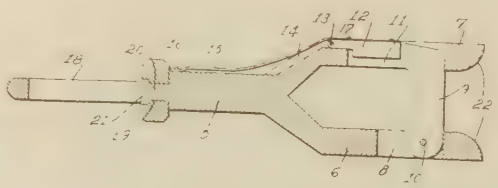
1,416,961. SAFETY HOOK. LEONARD LOOP, Tulsa, Okla. Filed Dec. 22, 1921. Serial No. 524,265. 1 Claim. (Cl. 24—241.)



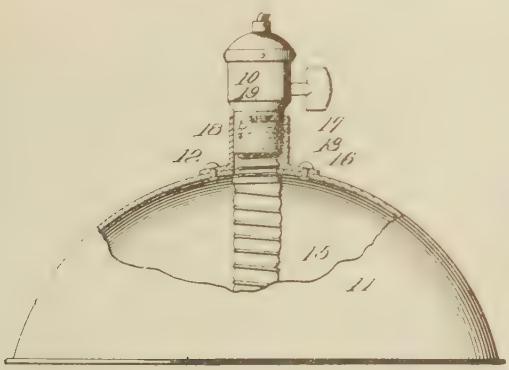
In a hook, a body portion including opposed arms, a latch member supported by one of the arms, the opposite

arm having an opening to accommodate the free end of the latch member, a locking arm adapted to normally lie in the path of travel of the latch member to restrict movement thereof, a spring member having one end secured to the locking arm and having its opposite end secured to the body portion, the intermediate portion of the spring lying in spaced relation with the body portion to permit the intermediate portion of the spring to move downwardly, and rock the locking arm upwardly and release the latch member.

1,416,962. SOAP HOLDER. FRED MEEKS, Los Angeles, Calif. Filed Nov. 23, 1921. Serial No. 517,294. 4 Claims. (Cl. 45—28.)

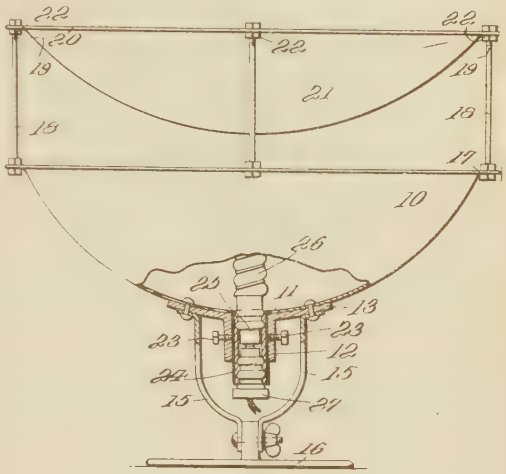
3. A combination of a cake of soap, and an endless piece of flexible tape passing through the cake of soap and extending beyond the same, those portions of the piece of tape which are extended beyond the ends of the soap being stitched to provide loops adapted for the reception of the fingers.

1,416,963. ELECTRICAL HEATER. HENRY H. MORETON, Venice, Calif. Filed July 30, 1920. Serial No. 399,981. 14 Claims. (Cl. 219—34.)



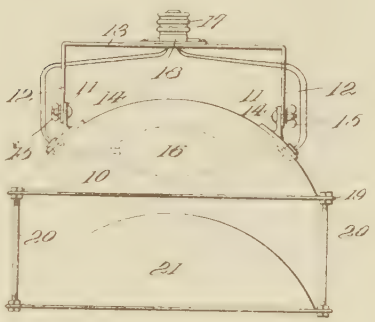
1. A heater of the character described comprising a parabolic reflector, a heating unit, and means whereby both may be connected to and supported by a standard lamp socket.

1,416,964. ELECTRICAL HEATER. HENRY H. MORETON, Venice, Calif. Filed July 30, 1920. Serial No. 399,982. 21 Claims. (Cl. 219—34.)



1. A heater of the character described comprising a main heat reflector, a heating unit co-operating therewith, and a supplemental heat reflector supported in juxtaposition with said main reflector.

1,416,965. ELECTRICAL HEATER. HENRY H. MORETON, Venice, Calif. Filed July 30, 1920. Serial No. 399,983. 12 Claims. (Cl. 219—34.)

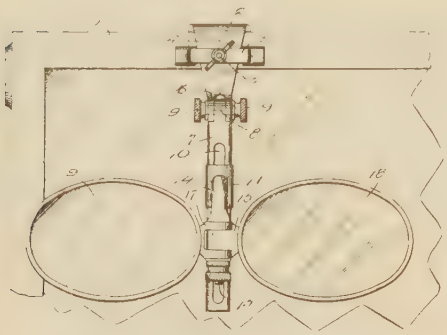


1. A heater of the character described comprising a reflector unit, a heating unit co-operating therewith, means for connecting said heating unit with a source of electrical energy, and means for providing rotative and angular adjustments of the reflector unit relative to said connecting means.

1,416,966. SAFETY DRIVING MIRROR FOR AUTOMOBILES. EDGAR LESLEY MORRIS, Charlotte, N. C. Filed Dec. 17, 1921. Serial No. 523,048. 3 Claims. (Cl. 45—97.)

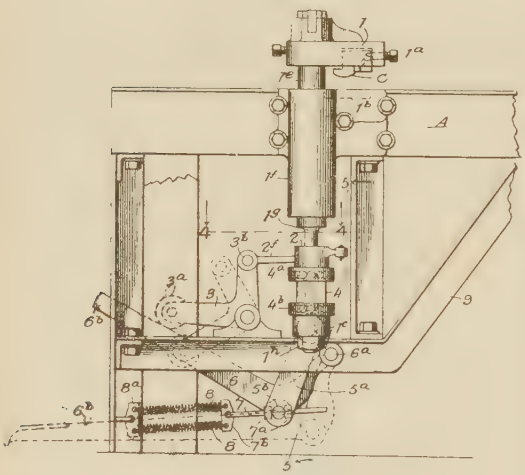
3. In a device of the class described, the combination of a hook engageable over the top of a windshield, said hook having a right angularly bent portion, means for detachably clamping the hook to the top of the windshield, a depending bar adjustably secured to the angu-

larly bent portion of the hook, mirror supporting means vertically adjustable on the depending bar, a plurality



of mirrors laterally swingable from said means, and means for fastening the mirrors in the desired adjusted position.

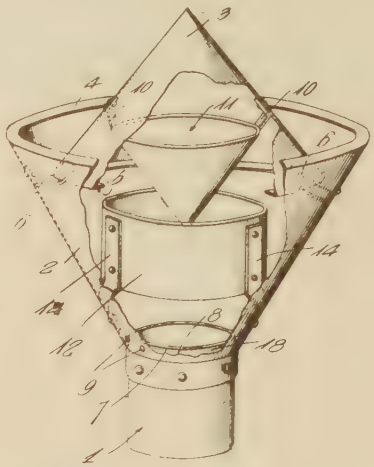
1,416,967. STAMPING ATTACHMENT FOR HIDE SPLITTERS. JEWETT FOWLER NEILEY, Endicott, N. Y. Filed July 27, 1921. Serial No. 487,997. 22 Claims. (Cl. 101—3.)



1. In a machine of the character specified a movable member; means to depress said member, spring means for normally holding the member in raised position; and means for turning the member in one direction as it rises and in the opposite direction as it lowers substantially as described.

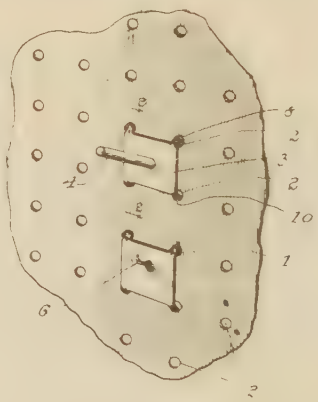
1,416,968. SPARK ARRESTER. WILLIAM BUCKRIDGE NUTTING, Portland, Oreg. Filed Nov. 3, 1921. Serial No. 512,556. 3 Claims. (Cl. 183—103.)

1. A spark arrester including superposed cones, the upper one of which is comparatively larger and has its apex disposed upwardly and the lower one of which is considerably smaller and has its apex disposed downwardly with its base portion arranged within the corresponding portion of the first named cone and with its apex extending below the base of said first named cone, the base portion of said inverted cone being spaced from the inner face of the large cone, whereby the smaller cone



is permitted to act as a deflector and as means for preventing direct contact of the hot particles with the upper and apex portion of the large cone.

1,416,969. DETACHABLE SUPPORT. JOHN B. O'CONNOR, Aurora, Ill., assignor to Lyon Metallic Manufacturing Company, Aurora, Ill., a Corporation of Illinois. Filed Sept. 20, 1920. Serial No. 411,438. 1 Claim. (Cl. 248—22.)

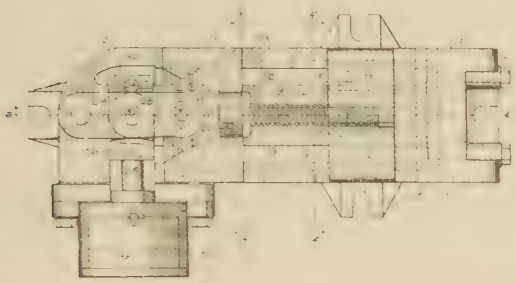


The combination with a sheet metal upright provided with spaced holes, of a substantially rectangular sheet metal base plate having a pair of spaced tabs extending from both its upper and lower edges, said tabs being bent to be engageable respectively through selected holes to detachably interlock with and support the base plate from the upright, the upper pair of tabs extending backward and upward and the lower pair of tabs extending backward and downward with respect to the base plate, and a supporting member extending outwardly from the base plate, said base plate being disposed in parallelism to the upright when in its supported position.

1,416,970. MACHINE VISE. JOHN A. OLSON, Chicago, Ill., assignor to The S-P Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 29, 1919. Serial No. 285,992. 4 Claims. (90—60.)

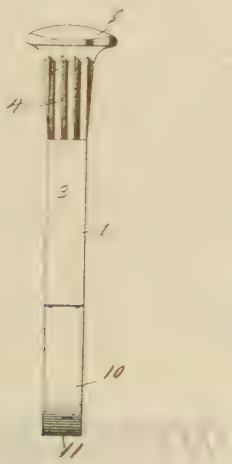
1. In a vise, the combination of a support having a fixed jaw extending upwardly therefrom, a slideway in said support, a slidable jaw mounted in said slideway, a

slide mounted on said support, a screw rotatably secured to said slide and engaging with a threaded hole in said



slidable jaw, a toggle connected with said slide for actuating the same, and means for actuating the toggle.

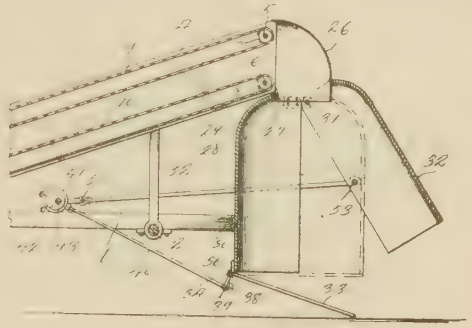
1,416,971. RAILROAD SPIKE. ROBERT E. OSBORNE, Hamburg, N. Y. Filed Oct. 6, 1921. Serial No. 505,816. 2 Claims. (Cl. 85—19.)



1. A railroad spike comprising a shank and a head carried by said shank, vertically disposed elongated teeth on the inner face of said shank and disposed adjacent the head thereof, the outer face of said shank being provided with downwardly and inwardly extending bevelled surfaces, thereby forming horizontally disposed shoulders, the upper inclined surface having its upper end extending outwardly beyond vertical alignment with the upper ends of the inclined surfaces, the vertically disposed teeth inclined downwardly and inwardly, the lower end of said spike being provided with a curved surface which curves downwardly and outwardly from the inner face of the spike and forms means for tilting the spike during its downward movement into a tie.

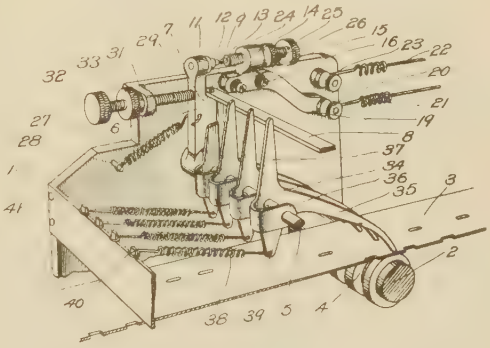
1,416,972. GATHERING AND COCKING MACHINE. LOUIS PAGEL, Forestville, Wis. Filed Oct. 20, 1920. Serial No. 418,300. 2 Claims. (Cl. 56—346.)

2. The combination with a cocking device comprising a receptacle having a rearwardly movable pivoted section and a downwardly movable bottom closure pivoted to the bottom of the receptacle and provided with a downwardly extending operating arm, of means for simultaneously moving rearwardly the rearwardly movable portion of the receptacle and the downwardly movable bottom, said means comprising a rotatable shaft having cranks, connecting rods connecting said cranks to the rearwardly



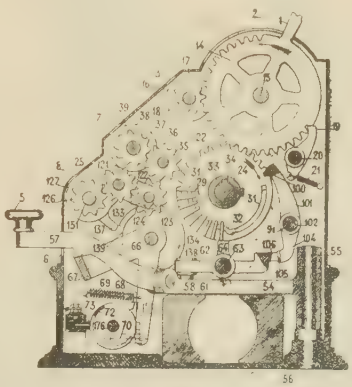
movable member, an eccentric carried by the shaft and having an eccentric rod connection with the downwardly extending arm of the bottom.

1,416,973. CIRCUIT MAKING AND BREAKING DEVICE. EDWIN H. PIERSEN, Topeka, Kans. Filed Oct. 2, 1919. Serial No. 328,051. 7 Claims. (Cl. 200—46.)



1. In combination with relatively fixed and movable contact members, a record member having alternating portions for the support and release of an actuator, a yieldingly urged actuator supported by the record member and operable on the movable contact member when released, and adjustable means restraining movement of the movable contact member.

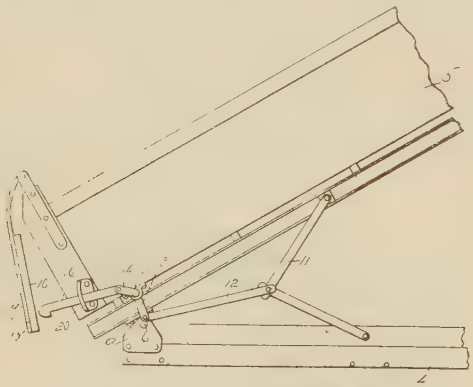
1,416,974. CALCULATING MACHINE. ROBERTO TAEGGI PISCICELLI, Paris, France. Filed Apr. 25, 1912. Serial No. 693,047. 18 Claims. (Cl. 235—62.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



1. A multiplying machine operating by repeated additions comprising wheels having handles serving to set up

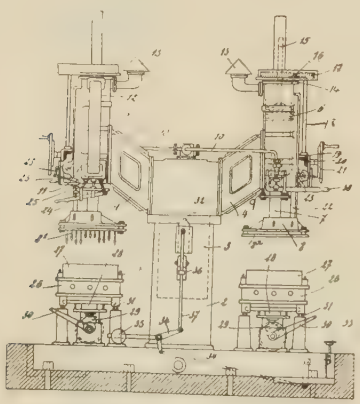
the multiplicand and placed in fixed planes, product indicator wheels also placed in fixed planes, repeating drums, an electric motor, a multiplication handle movable in two cross-wire directions, and electric contacts actuated by the said handle when the latter is moved in one of the two directions and adapted to supply current to the electric motor, the repeating drums being adapted to be moved in the direction of their axis by the handle when the latter is moved in the second direction so that they are brought into cooperation either with the wheels having handles or with the product indicator wheels, and the motor being adapted to revolve or turn the repeating drums.

1,416,975. DUMP WAGON. JAMES PULLAR, Hartford, Conn. Filed Sept. 10, 1920. Serial No. 409,305. 3 Claims. (Cl. 298—23.)



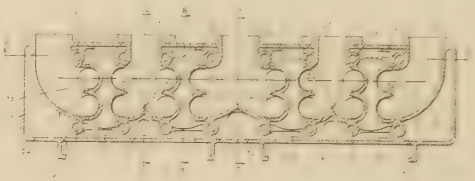
1. A frame, a wagon body pivotally mounted on said frame, a tail-board pivotally connected to said body, toggle levers pivotally connected to the frame and body, a longitudinally movable and vertically swinging latch for holding the tail-board in its closed position, and a connection between said levers and said latch for operating the latter by the tipping movement of the body, which tipping movement operates said toggle levers.

1,416,976. MOLDING MACHINE. NICOLAS RAPPEZ, Haine St. Pierre, Belgium. Filed Feb. 14, 1919. Serial No. 277,086. 17 Claims. (Cl. 22—41.)



1. In a molding machine, in combination, a plurality of driving cylinders, a central column, a central pivot supported in said column, a support rotating on said central pivot, arms projecting from said support and carrying the cylinders arranged in a circle around the central pivot, a piston in each cylinder, means for controlling the stroke of each piston, a rod for each piston, ramming members supported by certain of these piston-rods, levelling members supported by others of these piston-rods, a plurality of operating tables cooperating with the driving-cylinders, the said tables being arranged in a circle around the central column, a wedging member mounted on the central column, notches provided in the rotating support and in which the wedging member is engaged under the action of air pressure and means for releasing the wedging members from said notches.

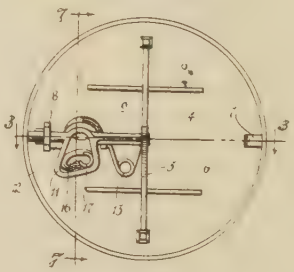
1,416,977. INTERNAL-COMBUSTION ENGINE. ROBERT M. ROOF, Anderson, Ind. Filed June 21, 1920. Serial No. 390,449. 6 Claims. (Cl. 123—59.)



2. A cylinder head construction for a four cylinder internal combustion engine, including an intake manifold and an exhaust manifold upon the same side, comprising a pair of separated chambers for each cylinder, one chamber being adapted to discharge gases from the cylinder and the other of said pair of chambers being adapted to supply fuel to said cylinder, the six intermediate chambers being grouped in pairs, each pair communicating with each other within the cylinder head, said cylinder head being provided with but five openings upon the same side, three being adapted to be connected to one manifold and the other two to the other manifold, said five openings being positioned in staggered relation, the end openings each communicating with one of said chambers, and each of the intermediate openings communicating with one of said pairs of communicating chambers.

1,416,978. LOCK FOR METER BOXES. EDWARD [illegible] SON, Dallas, Tex. Filed [illegible] No. 440,892. 1 Claim. (Cl. 137—13.)

WITHDRAWN

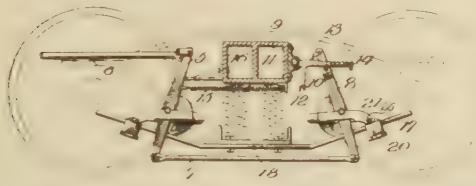


In a lock for meter boxes, in combination with the cover, comprising a bolt, a main rib on the underside of the cover, a lug opposite the rib, an aperture in the lug and rib to slidably receive the bolt, said bolt having a loop-like formation at approximately its center with an opening to receive a key, a key hole registering with said opening in the loop-like formation, a spring having one end seated in the rib and its opposite end attached to said bolt, and a projection adjacent the key hole on the underside of the cover to prevent movement of the bolt without the use of the key, and means on the cover to prevent rotation of the bolt.

1,416,979. BRAKE OR CLUTCH LINING. JOSEPH H. SARIS, Beloit, Wis. Filed Aug. 16, 1920, Serial No. 403,929. Renewed Oct. 28, 1921. Serial No. 511,108. 12 Claims. (Cl. 188—259.)

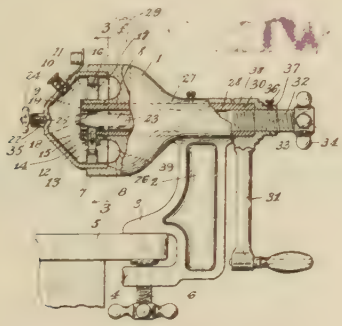
1. A brake or clutch lining, comprising a composition sheet or strip including fibrous material, granulated cork, and a heat and oil resisting binder.

1,416,980. AUTOMATIC SLACK ADJUSTER. NORMAN J. SAUVAGE, Flushing, N. Y. Filed Jan. 12, 1916. Serial No. 71,673. 12 Claims. (Cl. 188—199.)



12. In an automatic slack adjuster, in combination, a car bolster and spring plank, a member secured to said spring plank and disposed longitudinally of the truck, live and dead levers at opposite sides of the bolster, means for returning the levers to normal position, a push rod connecting the lower ends of the levers and frictional take-up devices associated with each lever and coacting with the member secured to the spring plank.

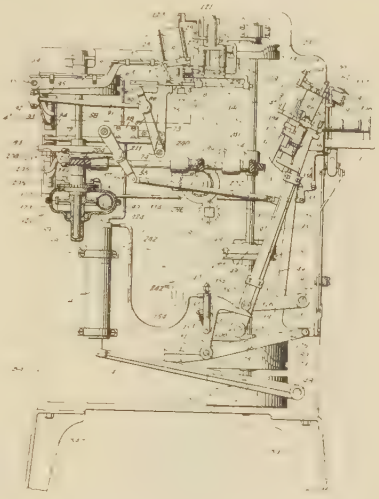
1,416,981. SURFACING MACHINE FOR COMMUTATORS. LEO A. SCHAUER and ERNEST C. MYERS, Pittsburgh, Pa. Filed June 7, 1920. Serial No. 387,131. 7 Claims. (Cl. 90—12.)



1. In a surfacing machine for commutators, a chuck, a revoluble spindle mounted therein, a cutting tool on the end of the spindle, and means for adjusting the intensity of pressure exerted by the cutting tool when the revoluble spindle is operated.

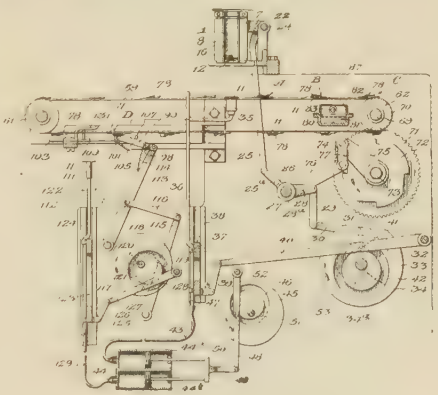
1,416,982. CIGAR-BANDING MACHINE. REINHOLD D. SCHOENWETTER, Baltimore, Md., assignor, by mesne assignments, to The National Manufacturing Company, Baltimore, Md., a Corporation of Maryland. Filed Aug. 16, 1916. Serial No. 115,200. 47 Claims. (Cl. 131—61.)

18. In a banding machine, a cradle having holding means comprising movable jaws, mechanism to deposit the article to be banded between said jaws, mechanism to automatically open said jaws to receive the article and then cause them to close thereon, band applying mechanism, mechanism to move said cradle into operative relation with said depositing mechanism and band applying



mechanism alternately, and means to open said jaws of said cradle after a band has been applied to a cigar and before the cradle comes into position to receive a cigar from the depositor.

1,416,983. CIGAR-BANDING MACHINE. REINHOLD D. SCHOENWETTER, Baltimore, Md., assignor, by mesne assignments, to The National Manufacturing Company, Baltimore, Md., a Corporation of Maryland. Filed May 17, 1917. Serial No. 169,248. 9 Claims. (Cl. 131—61.)

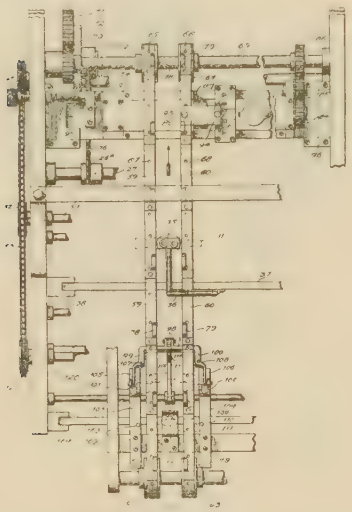


9. The combination with a magazine adapted to contain a stack of cigar bands, of a belt conveyer, spring clips carried by said belt conveyor for holding said bands, means for delivering the bands from the magazine to the conveyor, means for subsequently removing the bands from the clips and for positioning same on a plate and pneumatic means for removing the bands thus positioned.

1,416,984. COATING MACHINE. REINHOLD D. SCHOENWETTER, Baltimore, Md., assignor, by mesne assignments, to The National Manufacturing Company, Baltimore, Md., a Corporation of Maryland. Original application filed May 17, 1917, Serial No. 169,248. Divided and this application filed July 2, 1919. Serial No. 308,134. 14 Claims. (Cl. 91—51.)

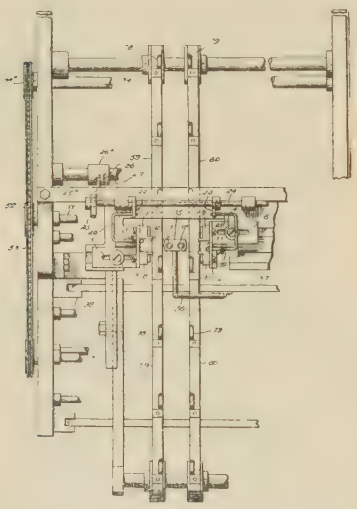
1. The combination with a tank, of a pair of rollers one of which is adapted to extend into liquid in said tank, and

the other constructed of yieldable material and pressed upon said first-named roller, and a belt conveyor having



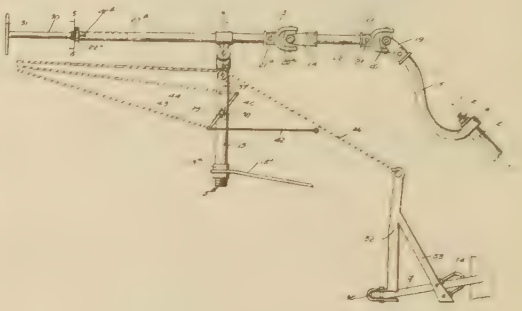
band holding means adapted to pass a portion of said bands between said rollers.

1,416,985. SHEET-FEEDING MACHINE. REINHOLD D. SCHOENWETTER, Baltimore, Md., assignor, by mesne assignments, to The National Manufacturing Company, Baltimore, Md., a Corporation of Maryland. Original application filed May 17, 1917, Serial No. 169,248. Divided and this application filed July 23, 1919. Serial No. 312,704. 19 Claims. (Cl. 271—31.)



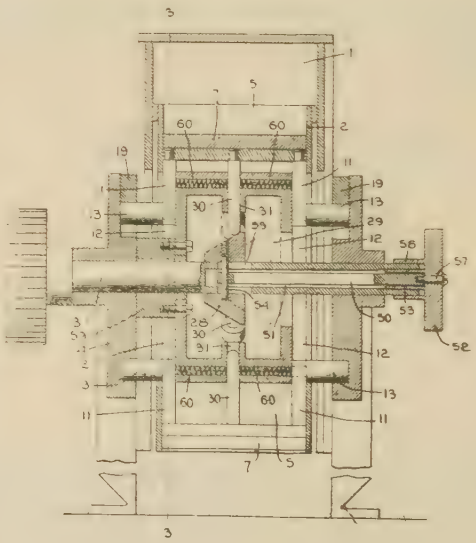
1. The combination with a magazine adapted to contain a stack of superposed cigar bands, of means acting endwise on said bands for bulging downward one or more bands adjacent to the bottom of the stack to separate them from those above and for lifting the latter.

1,416,986. STEERING DEVICE. EDWARD JOHN SELLA, Jewell, Iowa. Filed Mar. 25, 1919. Serial No. 285,118. 5 Claims. (Cl. 180—77.)



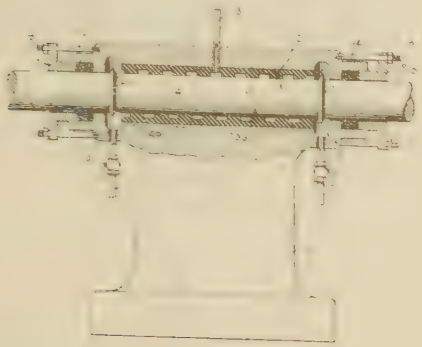
1. In a device of the class described, an upright post, a bearing supported thereon for adjustment in one plane, a steering rod in said bearing, means for connecting said steering rod with the steering post of a self-propelled vehicle, said means including a universal joint device, a shaft mounted on said post, arms on said shaft, means for moving said arms, and a throttle control rod connected with one of said arms.

1,416,987. DIVIDER. FRANK H. SHARPE, Dorchester, Mass. Filed Apr. 30, 1921. Serial No. 465,823. 4 Claims. (Cl. 107—15.)



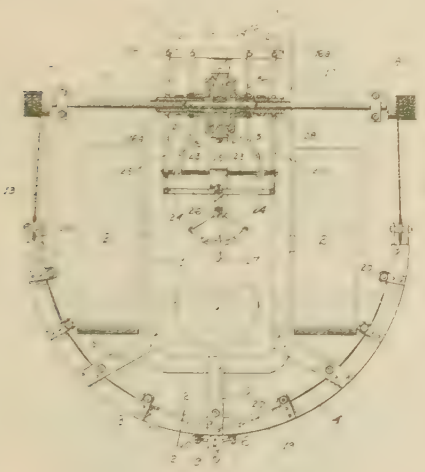
1. In a divider, the combination with a rotary divider element having a plurality of pockets, each provided with a movable bottom, of a rotatable shaft on which said dividing element is carried, means to move the pocket bottoms inwardly as the dividing member rotates, and a cone shaped controlling member adjustable longitudinally of the shaft and determining the extent to which the pocket bottoms can move inwardly.

1,416,988. BEARING. CHARLES FREDERIC SHERWOOD, Los Angeles, Calif. Filed Feb. 24, 1920. Serial No. 360,702. 10 Claims. (Cl. 64—10.)



4. In a bearing, a rubber member adapted to support a journal and a recess in said member for lubricant.

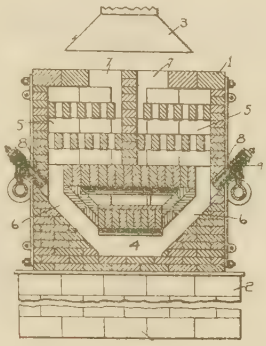
1,416,989. IMPLEMENT-STEERING ATTACHMENT FOR TRACTORS. ANTONE J. SILVA, Milton, Calif. Filed May 10, 1921. Serial No. 468,388. 10 Claims. (Cl. 180—14.)



1. An implement steering attachment for tractors including a horizontal track fixed on the tractor, a carriage supported and guided by the track and adapted for connection to the tongue of a drawn implement, a power driven shaft, a shaft on each side thereof, and normally disconnected therefrom, means for operatively connecting either at a time of said shafts with the driven shaft, a drum on each shaft, and cables wound on said drums and leading to the opposite ends of the carriage.

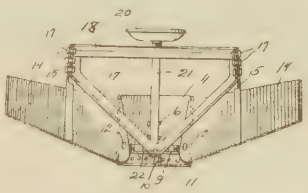
1,416,990. FURNACE. HARRY F. SMITH, Lexington, Ohio, assignor, by mesne assignments, to The Gas Research Company, Dayton, Ohio, a Corporation of Ohio. Filed Dec. 4, 1917. Serial No. 205,383. 5 Claims. (Cl. 158—7.5.)

1. In a regenerative furnace, a working chamber, air regenerators, valveless passages connecting said regenerators to the atmosphere, passages connecting said regenerators to the working chamber, nozzles for passing gas



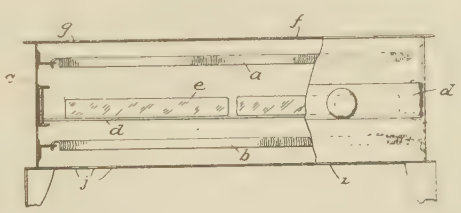
along said passages, and means for directing the flow of gas through the nozzles.

1,416,991. DITCHING DEVICE. JOHN C. STARLING, Lethbridge, Alberta, Canada. Filed Mar. 24, 1920. Serial No. 368,434. 3 Claims. (Cl. 97—12.)



2. A ditching device comprising a plow portion, earth-deflecting wings pivotally connected to said plow portion and extending in rearwardly diverging relation therefrom, curved standards formed with a series of perforations and rigidly secured to said wings and extending above the same, a longitudinal runner extending rearwardly from said plow portion, a substantially triangular frame carried by said runner and provided with a series of perforations adapted to register with said series of wing perforations, and bolts adapted for securing the members in adjusted relation.

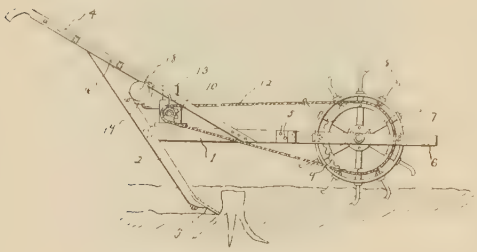
1,416,992. ELECTRIC TOASTER. PAUL K. STEHMAN, Elizabethtown, Pa., assignor to Earl M. Miller, Elizabethtown, Pa. Filed Feb. 3, 1921. Serial No. 442,016. 9 Claims. (Cl. 219—19.)



1. An electric toaster comprising a body the top and bottom of which are perforated, the aggregate area of the

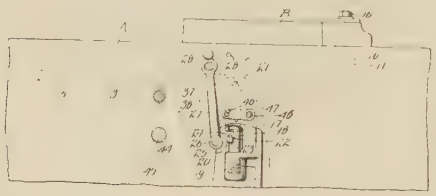
perforations in the bottom being greater than that of the perforations in the top, and a resistance element positioned within the body.

1,416,993. POWER-DRIVEN CULTIVATOR. THOMAS S. STEPHENS, Griffin, Ga. Filed July 8, 1920. Serial No. 394,856. 1 Claim. (Cl. 180—19.)



A tractor comprising a substantially horizontally disposed frame, said frame comprising a rearwardly extending beam, rearwardly and upwardly extending handle members carried by said beam, a rotatably mounted tractor wheel, the forward end of said beam being provided with a looped member in the same plane as the beam and having parallel sides, a tractor wheel disposed in said looped member and having bearings in the parallel sides thereof, said tractor wheel being provided with ground engaging elements in staggered relation to each other, an engine carried by the rear end of the plow beam and disposed between the handle members and provided with a drive shaft, a sprocket wheel rotatably mounted on the engine drive shaft, a sprocket carried by one side of tractor wheel and disposed within the looped member, a chain extending around said sprockets, a depression in one side of the sprocket carried by the engine drive shaft, a slidable clutch member feathered on the engine drive shaft, means whereby said clutch member may be moved into and out of engagement with the depression in the sprocket; said slidable clutch member allowing running of the engine by slipping of the clutch members.

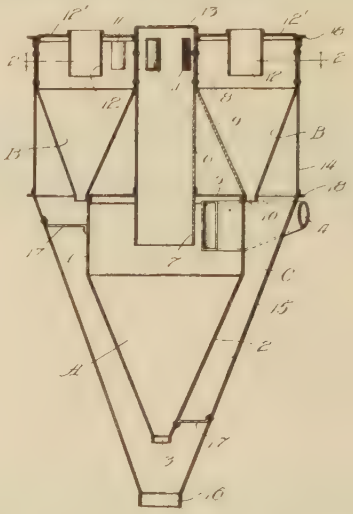
1,416,994. POSITIONING MEANS FOR GRINDING-WHEEL CARRIAGES. PAUL STONER, Waynesboro, Pa., assignor to Landis Tool Company, Waynesboro, Pa., a Corporation of Pennsylvania. Filed Nov. 18, 1920. Serial No. 424,904. 17 Claims. (Cl. 51—166.)



1. In a grinding machine, a base, a carriage thereon, means acting to move the carriage and spring exerted means acting alternately therewith to lock it in any one of a plurality of predetermined positions.

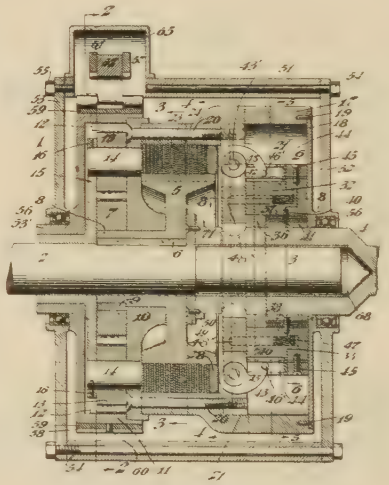
1,416,995. DUST COLLECTOR. EDMUND H. STROUD, Chicago, Ill. Filed June 16, 1919. Serial No. 304,446. 8 Claims. (Cl. 183—34.)

1. In combination, a primary dust collecting chamber and a plurality of secondary dust collecting chambers, said chambers having dust outlets, peripheral air inlets and axial air outlets, means for conducting the air passing from said primary chamber to the air inlets of said secondary chambers, and a casing enclosing said chambers



for receiving material therefrom, said casing having a conical lower portion provided with a common dust outlet at its lower end.

1,416,996. AUTOMATIC CHANGE-SPEED MECHANISM. MATTHEW STUCATUR, Philadelphia, Pa. Filed June 10, 1921. Serial No. 476,369. 32 Claims. (Cl. 74—97.)

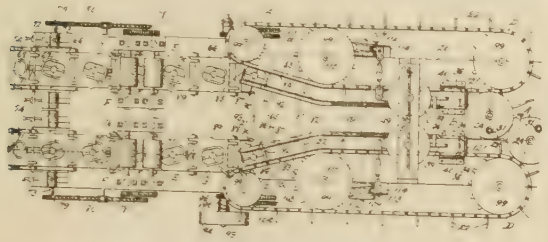


1. In a device of the class described, a driving shaft, a driven shaft, a driving gear and clutch element carried by said driving shaft, a planet carrier having a co-operating clutch element carried by said driven shaft, planet pinions on said carrier meshing with said driving gear, an orbit gear with which said planet pinons also mesh and centrifugal means on said driven shaft for effecting the automatic actuation of one of said clutch elements with respect to the other clutch element.

1,416,997. MACHINE FOR FILLING AND CLOSING CANS. WILLIAM E. TAYLOR, East Orange, N. J., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Original application filed Nov. 17, 1911, Serial No. 660,814. Divided and this application filed Apr. 18, 1916. Serial No. 91,914. 32 Claims. (Cl. 226—75.)

1. In a machine of the class described, the combination with an oil measuring and feeding device, of flange tuck-

ing mechanism and fusing means, substantially as specified, and a can conveyer having means for supporting the flanges

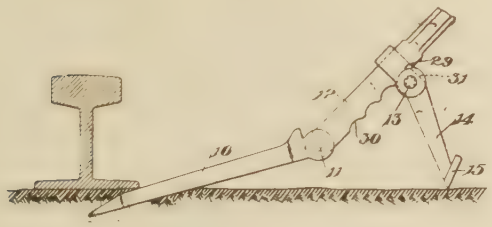


of the cans against downward pressure, and by which the cans are conveyed to be operated on by said instrumentalities.

1,416,998. SEAM-MARGIN-OPENING DEVICE FOR SEWING MACHINES. CARLYLE W. THOMAS and PHILIP W. SOMERS, Bridgeport, Conn., assignors to The Singer Manufacturing Company, Elizabeth, N. J., a Corporation of New Jersey. Filed July 28, 1920. Serial No. 399,535. 9 Claims. (Cl. 112—147.)

1. In a sewing machine, in combination, stitch-forming mechanism, feeding mechanism, and a plurality of folding scrolls concluding their folding action rearward of the point of seam formation to completely fold back a plurality of united margins of superposed plies of material in the operation of uniting the plies by stitches.

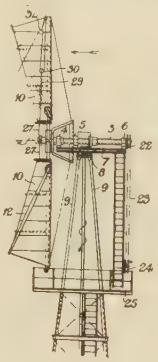
1,416,999. TOOL FOR ALIGNING TRACKS. MITSU UNO, San Francisco, Calif. Filed Apr. 5, 1921. Serial No. 458,716. 6 Claims. (Cl. 254—44.)



1. In an aligning device for railway tracks a pinch bar to engage beneath the rail at one end, a lever pivoted directly to the opposite end of the pinch bar and a swinging fulcrum support for the lever intermediate the ends of the latter, said parts being initially set so that when the lever is moved downwardly at its outer end the pinch bar is raised and simultaneously thrust forward.

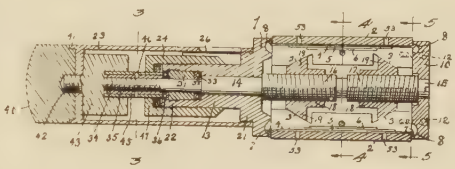
1,417,000. WINDMILL. HENRIC CHRISTIAN VOGT, Copenhagen, Denmark, WILLIAM VINCENT BOBY, London, and SIDNEY DAVID LANCASTER, Barkingside, England. Filed Mar. 9, 1922. Serial No. 542,228. 6 Claims. (Cl. 170—62.)

1. In a windmill, in combination, a hollow sleeve forming the hub of the mill, masts secured to said sleeve, flexible sails secured to said masts, a sprit arranged diagonally across each sail, a plurality of spars located



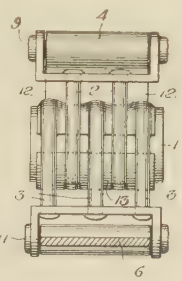
transversely on each sail, and means for regulating the angle of the sails to the direction of the wind.

1,417,001. GAUGE. HARRY VOLIS, Detroit, Mich. Filed Mar. 14, 1921. Serial No. 452,122. 6 Claims. (Cl. 33—178.)



1. In a gauge, the combination of a hollow cylindrical body having a radial slot, a shaft rotatably mounted in the body and having two groups of threads, heads threaded on said threaded portions and having projections inclined to the axis of the shaft registering with said radial slot, a blade mounted in the slot and having inclined surfaces engaging the inclined projections on the heads whereby the blade is forced outwardly when the shaft is turned in one direction, and a spring to force the blade inwardly when the heads are moved in the opposite direction.

1,417,002. SHOCK ABSORBER. WILLIAM L. WALKER, New York, N. Y. Filed Mar. 7, 1917. Serial No. 153,143. 7 Claims. (Cl. 267—30.)



7. A shock-absorber for vehicles and the like comprising a hollow cylindrical cushion of resilient composition and rings surrounding said cushion at intervals, alternate rings being adapted to connect with parts of the vehicle on opposite sides of said cushion respectively.

1,417,003. MOTOR. LEIGH WATKINS, New Orleans, La. Original application filed May 12, 1920, Serial No. 380,568. Divided and this application filed Mar. 18, 1921. Serial No. 453,424. 6 Claims. (Cl. 121—88.)

1. A device of the character described, comprising a casing, a shaft supported concentrically in the casing, a rotor having blades thereon mounted on the shaft, an eccentrically mounted cylinder in the casing through which said blades project, pins in the cylinder, and said casing having grooves therein receiving the ends of the pins.

1,417,004. OIL LAMP. WALTER WILLIAM WEBB, London, England. Filed Nov. 23, 1921. Serial No. 517,388. 6 Claims. (Cl. 67—35.)

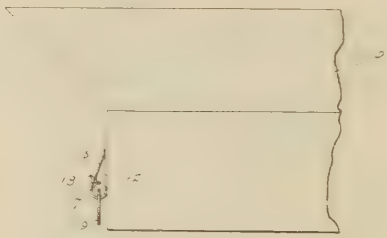
6. Oil lamp in the form of a candle, comprising a tubular reservoir, a spring spigot at the lower closed end of the tubular reservoir, a packing of absorbent material in said tubular reservoir, a wick holder, a wick therein, a perforated positioning component for said wick holder, and a removable centrally perforated cap at the upper end of the tubular reservoir, the wick holder with its wick passing through the perforated cap, substantially as described.

1,417,005. CINEMATOGRAPHIC APPARATUS. WILLIAM BURTON WESCOTT, Wellesley Hills, Mass., assignor to Kalmus, Comstock & Wescott, Incorporated, Boston, Mass., a Corporation of Massachusetts. Filed June 25, 1917. Serial No. 176,652. 23 Claims. (Cl. 88—19.3.)

1. In cinematographic apparatus having a light path therethrough, the combination of a shutter in said light path, means for actuating said shutter recurrently to shutter said path, means operating in synchronism with said first means for gradually varying the shuttering

effect of the shutter while in operation, and automatic means whereby said second means is started when said first means is started.

1,417,006. CHECK HOLDER FOR MINE CARS. JAMES EDWARD WHEWELL and HARLEY I. YODER, Hollsopple, Pa. Filed Dec. 14, 1920. Serial No. 430,811. 1 Claim. (Cl. 40—15.)



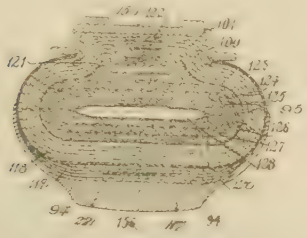
A check holder for mine cars comprising a hanger formed of a single strip of metal and cut to provide a base, a relatively narrow extension projecting from one end of the base and being bent to provide a hook for said member, a retaining arm formed by the cut out portion of the base and the free end of the arm being curved inwardly while the free end of the hook is curved outwardly.

1,417,007. PROCESS OF MAKING ELECTRIC STORAGE BATTERIES. HORACE M. WILLIAMS, Providence, R. I., assignor to Electrol Manufacturing Company, a Corporation of Rhode Island. Filed Aug. 19, 1920. Serial No. 404,667. 2 Claims. (Cl. 204—29.)

2. The herein described method of forming electric storage batteries with a solid filling surrounding lead plates and holding a sulphuric acid electrolyte in suspension, which comprises the following steps: first, charging and discharging the plates in a free solution of sulphuric acid of original standard battery specific gravity until the acid in the pores of the plates has a specific gravity approximately 1.200: second, removing said free electrolyte and substituting a mixture by volume of liquid silicate of soda, one part, water, three parts, and sulphuric acid of 1.400 specific gravity, five parts, whereby after chemical combination of the silicate of soda with a portion of the acid to form a voluminous mass of

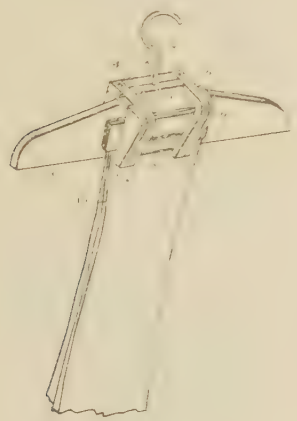
colloidal silica of gelatinous consistency, there will remain in suspension in said mass a residual content of sulphuric acid of approximately 1.200 specific gravity, as the active electrolyte for the battery so produced.

1,417,008. WHEEL EQUIPMENT AND METHOD OF CONSTRUCTING THE SAME. JOSEPH S. WILLIAMS, Riverton, N. J. Filed Apr. 15, 1913. Serial No. 761,193. 4 Claims. (Cl. 152—1.)



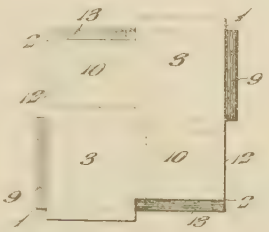
3. A resilient wheel equipment comprising an inner annular support, a tension belt having its outer portion transversely disposed substantially on transverse section lines parallel with the major transverse axis of the belt, with curvatures at the sides of approximately one hundred and eighty degrees, and with seating parts secured to said support, a resilient belt within said tension belt and extending into resilient support with the curvatures at the sides and having a clearing space approximately equalling in width the distance between the vertical axes of said curvatures, and a tread encircling said tension belt.

1,417,009. GARMENT HANGER. JOHN WILLIAM WOODWARD, Montreal, Quebec, Canada. Filed Mar. 28, 1921. Serial No. 456,305. 1 Claim. (Cl. 211—13.)



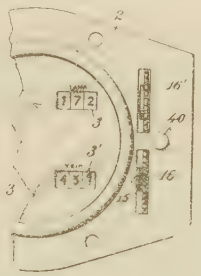
The combination of a coat hanger and a trousers hanger in which the frame of the trousers hanger straddles the coat hanger, the latter projecting upwardly within the trousers hanger frame and having a suspension hook projecting therefrom, said trousers hanger frame being rigidly secured to the hanger and having roller side guards and converging to said coat hanger to support a roller which forms the fastening member for the trousers.

1,417,010. PAVING BLOCK. GEORGE S. WRIGHT and CHARLES WESLEY WRIGHT, Philadelphia, Pa. Filed Aug. 6, 1921. Serial No. 490,314. 3 Claims. (Cl. 94—13.)



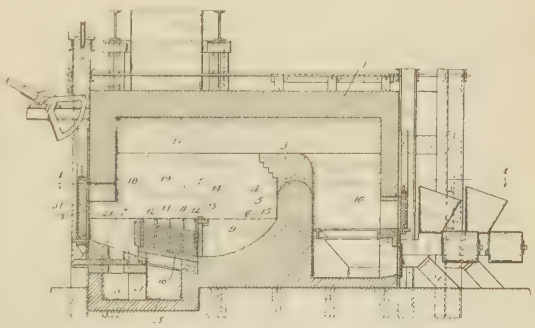
1. The herein described paving block, composed of upper parallel vertical walls, upper downwardly converging walls, lower vertical parallel walls and lower downwardly diverging walls, said upper vertical walls merging into said lower downwardly diverging walls, and said upper downwardly converging walls merging into said lower vertical walls.

1,417,011. REGISTER. JACOB J. ALBRIGHT, Columbus, Ga. Filed Dec. 7, 1920. Serial No. 428,910. 20 Claims. (Cl. 235—144.)



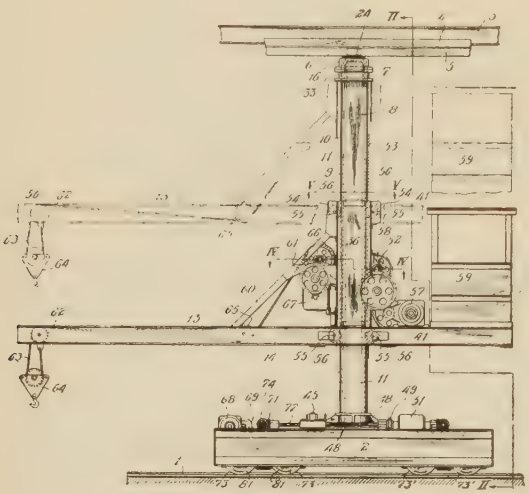
1. In registering mechanism, the combination with two counter groups, of intermeshing gear wheels, one connected to actuate one counter group and the other connected to actuate the other counter group, one of said gear wheels being shiftable relative to the other for being moved out of mesh therewith.

1,417,012. METHOD OF AND FURNACE FOR HEAT-TREATING SHEET AND TIN-PLATE BARS. THOMAS V. ALLIS, deceased, late of Pittsburgh, Pa., by Hannora E. G. Allis, administratrix, Pittsburgh, Pa. Filed Apr. 10, 1920. Serial No. 372,981. 17 Claims. (Cl. 263—6.)



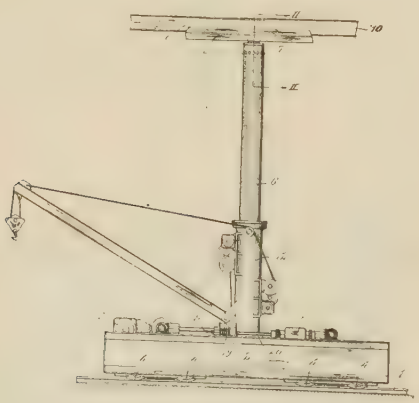
1. The method of heating sheet and tinplate bars, which consists in piling them into a mass with their side, longitudinal and end edges in alignment, in the center of a furnace hearth, and heat-treating said mass to obtain uniformly heated bars.

1,417,013. HOISTING AND CONVEYING MACHINE. DONALD S. ANDREWS, Cleveland, Ohio, assignor to Andrews Crane Corporation, Cleveland, Ohio, a Corporation of Delaware. Filed Feb. 28, 1921. Serial No. 448,437. 16 Claims. (Cl. 212—64.)



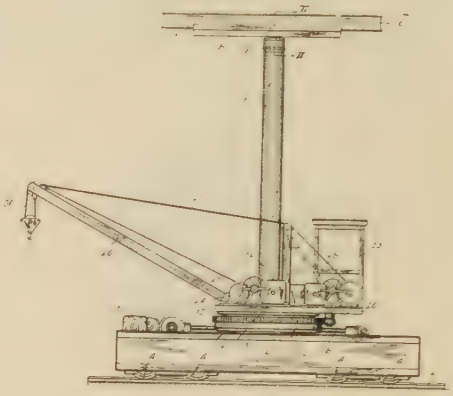
1. In a hoisting and conveying machine, the combination of a ground track; a car adapted to run upon and means for moving same along said track; overhead longitudinal guiding means; an upright supporting structure having its base mounted upon said car and having its upper portion engaging said guiding means, whereby the stability of said supporting structure is maintained; a boom extending laterally from said supporting structure and movable longitudinally with reference thereto, said boom being rotatable with reference to the axis of said supporting structure and in a horizontal plane; and means for effecting said longitudinal and rotative movements.

1,417,014. HOISTING AND CONVEYING DEVICE. DONALD S. ANDREWS, Cleveland, Ohio, assignor to Andrews Crane Corporation, Cleveland, Ohio, a Corporation of Delaware. Filed July 2, 1921. Serial No. 482,005. 3 Claims. (Cl. 212—17.)



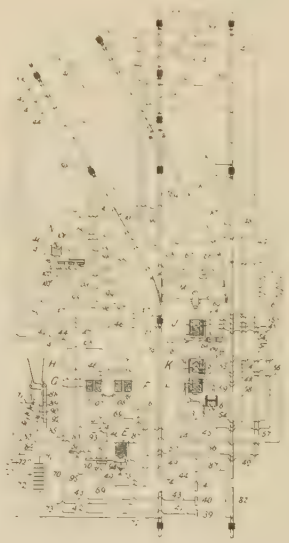
1. In a hoisting and conveying device, the combination of a ground track; a truck adapted to travel upon said track; a vertical mast mounted upon said truck; an overhead support for said mast; a sleeve mounted upon the latter, rotatable thereon but vertically fixed; an oscillatory boom mounted upon said sleeve; means for rotating the latter; and means for actuating said truck to travel upon said track.

1,417,015. HOISTING AND CONVEYING DEVICE. DONALD S. ANDREWS, Cleveland, Ohio, assignor to Andrews Crane Corporation, Cleveland, Ohio, a Corporation of Delaware. Filed July 2, 1921. Serial No. 482,006. 2 Claims. (Cl. 212—17.)



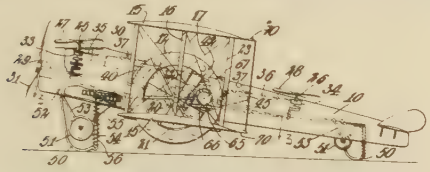
1. In a hoisting and conveying device, the combination of a ground track; a truck adapted to travel upon said track; a turn table mounted upon said truck; a mast mounted upon the latter; an overhead support for said mast in traveling engagement therewith; and an oscillatory boom mounted upon said turn-table.

1,417,016. RAILWAY SAFE-RUNNING DEVICE. ARTHUR REGINALD ANGUS, Minehead, England. Filed Feb. 10, 1912. Serial No. 676,891. 30 Claims. (Cl. 246—71.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



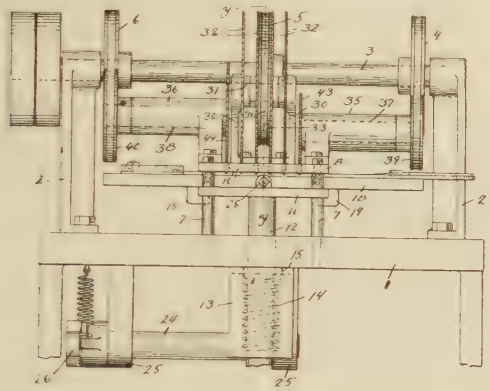
30. Train protecting apparatus comprising track apparatus with means adapted to operate the same from a moving train, and means adapted to be operated from a track station and to be thereby caused to effect the operation of said track apparatus and to prevent said track apparatus from being operated from said moving train.

1,417,017. MULTIPROPELLED AEROPLANE. JOSEPH ARDO, Newhall, W. Va. Filed Aug. 1, 1921. Serial No. 488,779. 5 Claims. (Cl. 244—2.)



4. In an aeroplane, wheels and skids, and a common operating mechanism for said wheels and skids adapted to raise and lower the same and to move said wheels and skids inversely in unison.

1,417,018. SOLE-GROOVING MACHINE. OSCAR F. ARMSTRONG, Haverhill, Mass., assignor to Ernest D. Haseltine Co., Haverhill, Mass., a Corporation of Massachusetts. Filed Apr. 18, 1921. Serial No. 462,225. 6 Claims. (Cl. 12—40.)

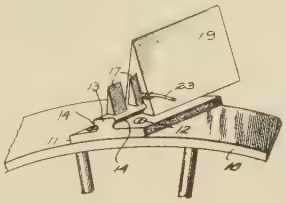


1. A sole-grooving machine comprising a gang of rotary grooving cutters, a guard plate through which said cutters extend a distance corresponding to the depth of groove to be cut, a sole-support, spring actuated means for moving said support perpendicularly of its face, to press a sole thereon against said plate and in position to be engaged by said cutters, manually operated means for withdrawing said support from said plate, and manually operated means for moving said support transversely.

1,417,019. MUSICAL TOY. JEROME BARTOLOWSKY, Oakland, Calif. Filed Feb. 15, 1921. Serial No. 445,230. 6 Claims. (Cl. 46—46.)

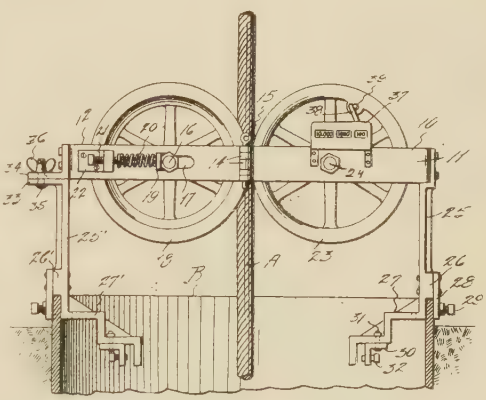
1. A musical toy including a bar, a handle journaled on one end of said bar for rotating it, a sound box on the other end of said bar, a pair of sound chambers in said sound box, a slotted plate and reeds between said chambers.

1,417,020. CLEAT FOR TRACTOR WHEELS. EARL H. BASS, Derby, Iowa. Filed June 22, 1921. Serial No. 479,496. 5 Claims. (Cl. 301—44.)



4. A cleat for wheels or the like including a base member secured to the rim of the wheel, a pair of guide ribs formed on the base, said base having a plurality of screw-threaded openings formed therein between said guide ribs, prongs having screw-threaded shanks received in said screw-threaded openings, a spade cleat member having a pair of grooves therein adapted to receive said guide ribs, said spade cleat being hollow, whereby said spade cleat may be slid on said base and over said prongs for covering them and a locking bar adapted to be yieldingly held in position for preventing movement of said spade cleat member.

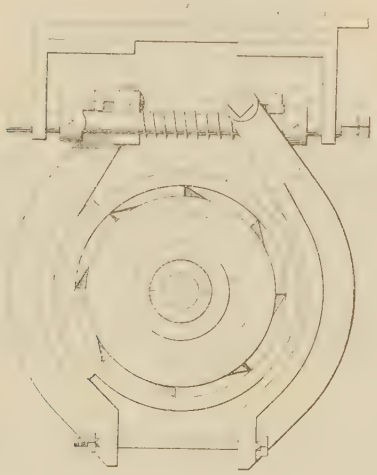
1,417,021. MEASURING DEVICE. JACK H. BEVEL, Dallas, Tex. Filed May 24, 1920, Serial No. 383,662. Renewed Apr. 3, 1922. Serial No. 549,169. 3 Claims. (Cl. 33—134.)



1. In a measuring device of the character described, a pair of substantially horizontal U-shaped frame sections having their open ends arranged innermost, a hinge joint connecting the inner ends of corresponding sides of the frame sections whereby one frame section may be swung horizontally with relation to the other frame section and the frame section securely held against perceptible vertical movement with relation to each other, a plurality of apertured ears formed upon the inner end of the opposite side of one frame section, a plurality of apertured ears formed upon the inner end of the opposite side of the other frame section and adapted to interfit with the first named apertured ears, a pin adapted for insertion through the apertured ears so that they are securely locked together and one frame section held against vertical movement with relation to the other frame section, a friction wheel arranged within and supported by one frame section, a co-acting friction wheel arranged within and supported by the other frame section and adapted to move bodily toward and away from the first named friction wheel, yielding means to urge the second named friction wheel toward the first named friction wheel, a register supported

upon one frame section near one friction wheel and actuated thereby, and supports attached to the outer ends of the U-shaped frame sections and depending therefrom.

1,417,022. HOISTING APPARATUS. WILLIAM EDWARD BOEHCK, Jersey City, N. J., assignor to Revolvator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Mar. 22, 1920. Serial No. 367,616. 6 Claims. (Cl. 192—15.)



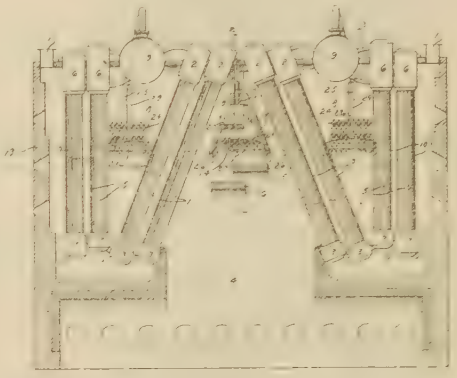
2. A hoisting apparatus including a drive-shaft; a pin angularly-disposed to and fixed upon the same; a drive-pinion mounted loose thereon and having one of its faces formed with a cam-surface over which the pin rubs; a brake for preventing backward rotation of the drive-shaft during hoisting; and means for releasing the brake to lower away the load while the drive-pinion remains clutched to the drive-shaft; the drive-pinion and the brake being arranged to be pressed towards each other by the cam-action of the pin rubbing over the cam-surface and the drive-pinion to be clutched frictionally to the drive-shaft.

4. A hoisting apparatus including a drive-shaft; a friction-disk mounted fast thereon; a brake member for preventing backward rotation of the drive-shaft during hoisting; teeth formed on said brake member; a pawl-carrying member loosely mounted on said drive-shaft; a pawl carried by said pawl-carrying member and arranged to engage said teeth during backward rotation of the drive-shaft; a drive-pinion loosely mounted on the drive-shaft; means for forcing the drive-pinion and pawl-carrying member lengthwise along the drive-shaft towards the friction-disk and clutching the drive-pinion and pawl-carrying member frictionally to the drive-shaft; and mechanism for releasing the brake member to lower away the load while the drive-pinion remains clutched to the drive-shaft.

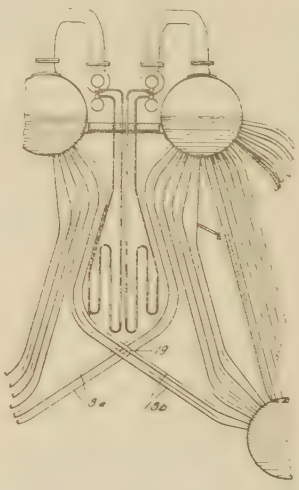
1,417,023. BOILER WITH SUPERHEATER. BENJAMIN BROIDO, New York, N. Y., assignor to The Superheater Company, New York, N. Y., a Corporation of Delaware. Filed May 9, 1918. Serial No. 233,448. 5 Claims. (Cl. 122—460.)

1. In a boiler the combination of two downwardly diverging banks of tubes, a furnace in the lower part of the space between the banks, a superheater in the upper part, means below the superheater to intercept the direct radiation from the furnace but permitting the passage of hot gases to the superheater, and a hood over the superheater provided with a dampered opening at one side.

4. In apparatus of the class described, the combination of a wall having a slot, a plurality of superheater units, each comprising a plurality of pipe lengths and all its parts lying in a single plane, said units lying in parallel planes and in a space adjacent to one end of the slot, there being a free space in the group of units in alignment with the slot wide enough so a unit may be inserted into it; whereby, during removal and replacement of a unit, it may be brought into a position such that it projects into the space, diagonally through the slot, and out into the space outside of the wall.

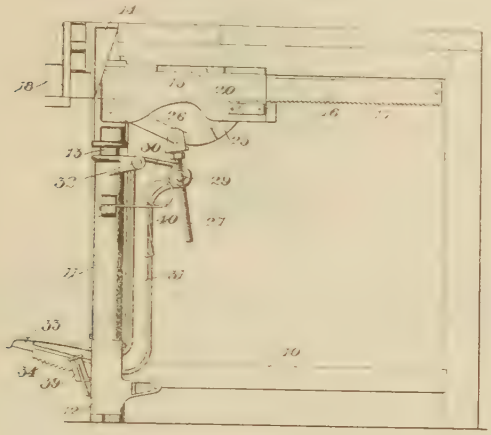


1,417,024. WATER-TUBE BOILER WITH SUPERHEATER. BENJAMIN BROIDO, New York, N. Y., assignor to The Superheater Company, New York, N. Y., a Corporation of Delaware. Filed June 4, 1919. Serial No. 301,819. 2 Claims. (Cl. 122—473.)



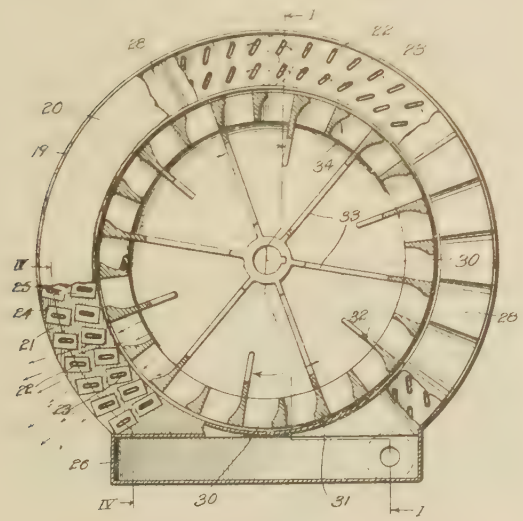
1. In a boiler, the combination of two upper and two lower spaced parallel drums, two diverging banks of tubes connecting the two upper to the two lower drums, two additional rows of spaced tubes each communicating with an upper drum and adjacent and parallel to one of the diverging banks for a certain distance from the top and then bent toward and communicating with the opposite lower drum so that the tubes of one cross those of the other and thereby screen the upper portion of the space between the diverging banks from the lower, superheater headers above the upper portion of said space, and tubular superheater elements secured to the headers and looping into said upper portion of the space.

1,417,025. BENCH VISE. WILLIAM H. BRYAN, Jr., Fresno, Calif., assignor to Georgie D. Bobo, Napa, Calif. Filed Oct. 20, 1921. Serial No. 508,976. 5 Claims. (Cl. 81—30.)



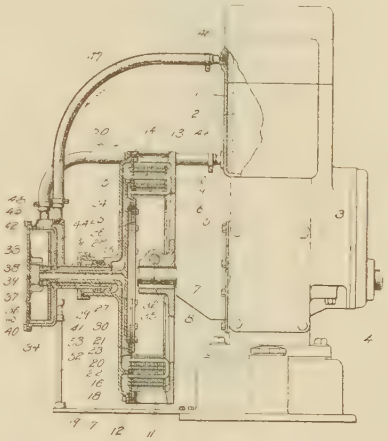
1. A bench vise of the foot operated type comprising a vertically adjustable frame, a stationary jaw on the upper portion thereof, a guide member thereon, a toothed bar slidably mounted in the guide member and carrying a jaw to cooperate with the stationary jaw, a slidable pawl for operating said toothed bar, toggle links for actuating said pawl, a bell crank lever pivotally mounted on the lower portion of the frame for spreading the toggle links apart whereby to accentuate the pawl, and a longitudinally adjustable thrust connection between said bell crank lever and the toggle links, for operating the latter, whereby the distance between the toggle links and bell crank lever may be varied.

1,417,026. RADIATOR. ARTHUR W. CAPS, Topeka, Kans., assignor to The Piersen Manufacturing Company, Topeka, Kans., a Corporation of Kansas. Filed June 7, 1920. Serial No. 386,929. 4 Claims. (Cl. 257—126.)



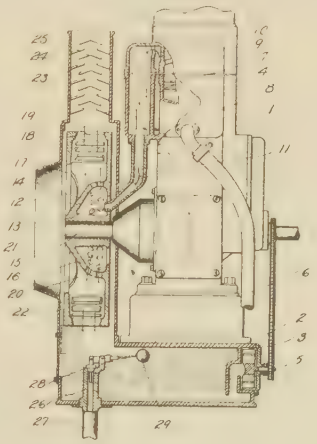
1. A radiator comprising a substantially cylindrical casing having oppositely disposed compartments, flat tubes transversely connecting said compartments and arranged tangentially to the circumference of the radiator, and an air impeller within the radiator for directing the air in stream lines parallel to the walls of the tubes.

1,417,027. ENGINE RADIATOR. ARTHUR W. CAPS, Topeka, Kans., assignor to The Piersen Manufacturing Company, Topeka, Kans., a Corporation of Kansas. Filed July 22, 1920. Serial No. 398,205. 6 Claims. (Cl. 257—127.)



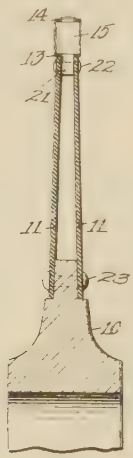
1. The combination of a rotating radiator, an impeller casing communicating with the radiator, a ported impeller shaft within the impeller casing and in ported communication with the rotating radiator, and an impeller thereon, said impeller casing and impeller being distant from but concentric with the rotating radiator.

1,417,028. ENGINE-CYLINDER-COOLING MEANS. ARTHUR W. CAPS, Topeka, Kans., assignor to The Piersen Manufacturing Company, Topeka, Kans., a Corporation of Kansas. Filed Oct. 22, 1920. Serial No. 418,846. 1 Claim. (Cl. 123—174.)



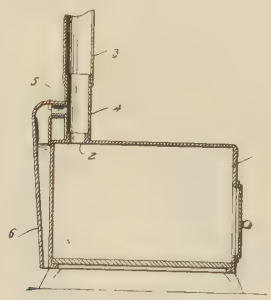
In combination with an engine comprising a water jacket and a crank shaft, a hollow fly wheel on the crank shaft, having a slotted rim and a lateral air intake port, a hub on said wheel having an annular chamber provided with peripheral ports and with an annular side opening, a reservoir below the fly wheel, a casing enclosing the fly wheel and opening to the reservoir, means for delivering cooling liquid from the reservoir to the water jacket, and a conduit leading from the water jacket and delivering to the hub chamber through said annular opening.

1,417,029. ROTOR. AXEL W. CARLSON, Worcester, Mass., assignor to Carling Turbine Blower Co., Worcester, Mass., a Corporation of Massachusetts. Filed July 11, 1919. Serial No. 310,003. 1 Claim. (Cl. 253—39.)



A rotor having in combination a hub, a pair of discs mounted thereon, inner and outer concentric bands, a plurality of vanes having their outer ends secured to the outer band and their reduced inner ends formed of uniform cross section throughout their length and projecting through the inner band and between said discs, and fastening devices extending through said discs and between certain of said projecting portions, each fastening device being disposed in notches in the adjacent faces of two adjacent projecting portions and preventing withdrawal thereof and also firmly holding said discs against the outer faces of the inner ends of said vanes.

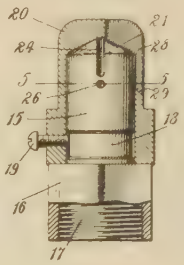
1,417,030. SMOKE-FUEL ATTACHMENT. JAMES H. CARMICHAEL, Cedar Falls, Wash. Filed Nov. 26, 1920. Serial No. 426,440. 2 Claims. (Cl. 126—89.)



1. A ventilating attachment for a stove consisting of a casing formed with a back and two side flanges and adapted to fit against one end of the stove to serve as an air passageway, the upper end of said casing having an elbow, and a pipe section having a laterally extending nipple in telescopic engagement with the upper end of said elbow.

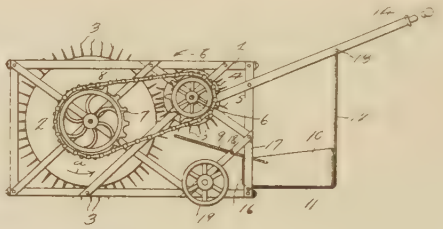
1,417,031. NOZZLE. NAPOLEON P. CASORSO and CLEMENT VACHER, Santa Barbara, Calif. Filed Dec. 9, 1920. Serial No. 429,451. 3 Claims. (Cl. 299—139.)

1. The combination with a nozzle, of a cap rotatably mounted thereon, said nozzle having a pair of elongated slots formed in the end thereof and extending a distance through the side thereof, said nozzle having a pair of circular openings formed in the end and side thereof and the said cap having an elongated slot formed in the end and extending through one side thereof and a circular opening for registration with the slots and openings in



the nozzle to regulate the force of water passing therethrough and direct the stream of water either forward or to the side respectively of the nozzle as required.

1,417,032. LAWN CLEANER. CLARENCE M. CHAFFIN, Springfield, Mo. Filed Mar. 8, 1921. Serial No. 450,657. 1 Claim. (Cl. 55—145.)



A lawn cleaner comprising a frame, a rotatable ground engaging drum carried by said frame, leaf piercing engaging fingers carried by said drum, said frame having its lower end positioned to engage the ground and limit the distance the fingers will enter the ground, a second drum rotatably mounted in bearings of the frame and disposed to the rear of the first mentioned drum and adjacent the upper end thereof, said second drum being provided with a plurality of cleaning fingers interengaging with the piercing fingers on the ground engaging drum, connecting means between said drums whereby the second drum will be rotated at a greater rate of speed than the ground engaging drum, a pivoted inclined plate pivoted in the frame, the forward end of said frame being disposed beneath the second drum, a removable hopper carried by the frame, the rear end of the pivoted plate being disposed above the forward end of the hopper, and wheels for supporting the frame, said wheels being located adjacent the rear end thereof.

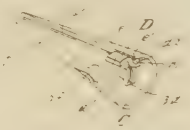
1,417,033. MANUFACTURE OF GOLD-COLORED SULPHURS AND VERMILIONS OF ANTIMONY. PAUL CHAILLAUX, Paris, France. Filed June 23, 1920. Serial No. 391,207. 1 Claim. (Cl. 134—58.)

A process for the manufacture, by dry-process, of gold-colored sulfides and vermilion of antimony consisting in melting natural sulfide of antimony, Sb_2S_5, in a closed vessel, and then passing a current of atmospheric air through the melted mass while maintaining said mass at a temperature corresponding to the coloration desired for the sulfide, Sb_2S_5, to be obtained.

1,417,034. PENCIL SHARPENER. CLEMENT CLEVELAND, New York, N. Y. Filed Dec. 6, 1919, Serial No. 342,891. Renewed Aug. 20, 1921. Serial No. 493,962. 20 Claims. (Cl. 120—93.)

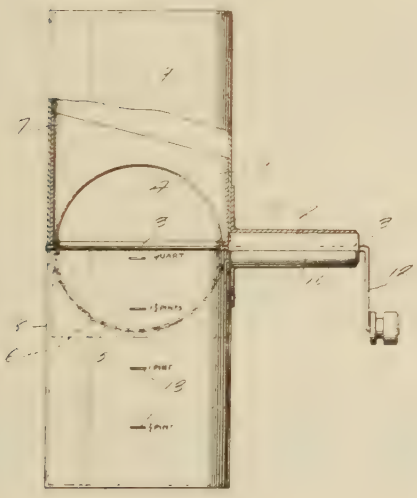
3. A pencil sharpener comprising a split tubular cone for receiving the lead pencil therein, the split edge por-

tions of the cone providing a plane edge and a knife edge, and means for positioning the plane edge and knife edge for co-action therebetween for cutting the encased end of



the lead pencil by the knife edge, said means for positioning the knife edge forming an opening at the mouth of the tubular cone for inserting therein the unencased lead of the pencil for pointing said lead by the knife edge.

1,417,035. FLOUR SIFTER. BOZENA CMEYLA, Kewaunee, Wis. Filed Feb. 24, 1921. Serial No. 447,483. 3 Claims. (Cl. 83—60.)

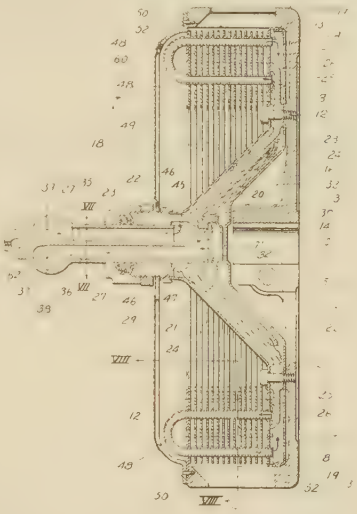


1. The combination with a sieve having a sifting and agitating element and a radially disposed handle spaced from the ends thereof, of receptacles telescopically engaging the ends of said sieve, said receptacles adjacent their open ends being provided with handle members radially disposed and adapted to engage the handle member of the sieve.

1,417,036. [WITHDRAWN.]

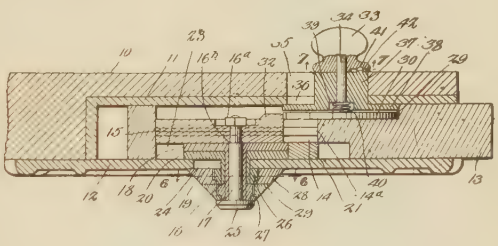
1,417,037. RADIATOR. EVERETT B. CUSHMAN, Topeka, Kans., assignor to The Piersen Manufacturing Company, Topeka, Kans., a Corporation of Kansas. Filed Mar. 15, 1920. Serial No. 365,737. 16 Claims. (Cl. 257—127.)

1. In combination with a mechanical structure comprising passages for the circulation of a fluid, a rotatable radiator having passages corresponding to those in said structure and connected therewith, and means for directing air from the side of the radiator remote from the structure in



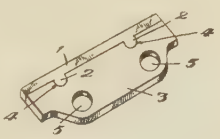
cooling relation to said passages in the radiator, the side of the radiator adjacent the structure being closed.

1,417,038. LOCK. LOUIS P. DAGES, Baltimore, Md., assignor of one-half to Leonel F. Revell, Baltimore, Md. Filed Oct. 22, 1921. Serial No. 509,597. 5 Claims. (Cl. 70—53.)



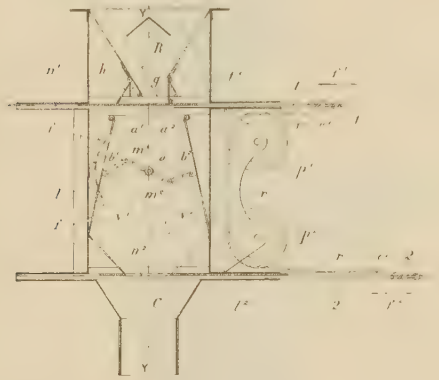
1. A permutation lock comprising a casing, a slidable bolt in the casing and having a longitudinal slot, a block in the slot on which the bolt is slidable, a bolt-retracting stem carried by the block, telescopically connected sleeves rotatably mounted on the stem, rotatable tumblers carried by the sleeves, a stationary plate having an opening in which the tumblers work and an exit slot for the tumblers leading from said opening, dial rings adjustably mounted on the sleeves, and a knob on the outer end of the stem, said knob and dial rings being concentrically arranged.

1,417,039. METHOD OF MAKING SHIMS. BRADFORD DARRACH, Jr., Elizabeth, N. J., assignor to Laminated Shim Company, Inc., Long Island City, N. Y., a Corporation of New York. Filed May 25, 1920. Serial No. 384,109. 5 Claims. (Cl. 29—148.)



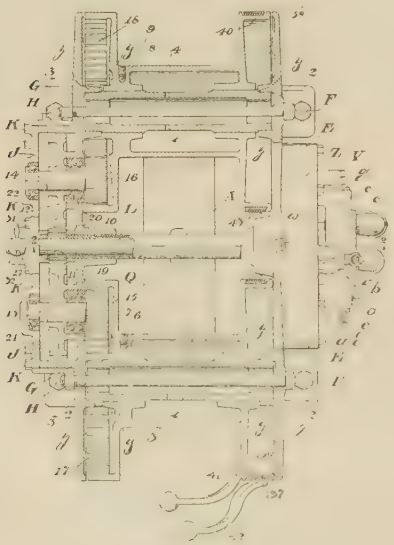
1. The herein described method of making shims which consists in providing a solid soft metal facing member and a body portion, and securing the parts edge to edge by pressure.

1,417,040. DELIVERING OR BAGGING APPARATUS. CHARLES AUGUSTE DEFAUCONPRET, Paris, France. Filed Mar. 6, 1919, Serial No. 280,932. Renewed Apr. 12, 1922. Serial No. 552,063. 2 Claims. (Cl. 221—113.)



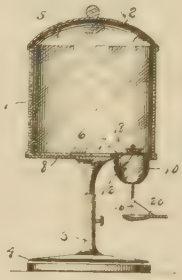
1. A delivering apparatus comprising in combination a measuring chamber, a feeding reservoir located above said measuring chamber and having at its bottom a passage adapted to be put in communication therewith, a reciprocating slide valve provided with an opening adapted to be brought into or out of register with the said passage, an inclined plate projecting into the said passage and a spring mounted scraper at the outer side of said inclined plate, substantially as described and for the purpose set forth.

1,417,041. DOUBLE-DRUM HOIST. JESSE DITSON, Littleton, Colo., assignor to Ingersoll-Rand Company, Jersey City, N. J., a Corporation of New Jersey. Filed July 20, 1921. Serial No. 486,098. 6 Claims. (Cl. 254—185.)



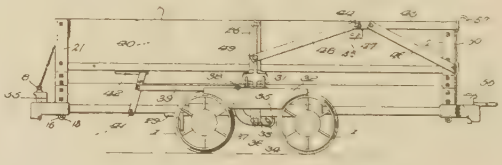
1. A double drum hoist, comprising a base plate, a supporting frame mounted in upright position at one end of the base plate, a gear box mounted in upright position at the opposite end of the base plate, a removable cover plate for said gear box, a central driving shaft having bearings in said frame and gear box, a reversible fluid pressure motor secured at the outside of said supporting frame and operatively connected to drive said driving shaft in either direction, drum bearings supported by the said frame and gear box at each side of the central driving shaft and maintaining the outer portions of the frame and gear box in spaced relation, bolts passing through the drum bearings for holding the parts together, drums rotatably mounted on said drum bearings, and driving connections mounted in the gear box between the driving shaft and drums including shiftable means for connecting the driving shaft to one or the other of the drums.

1,417,042. DISPENSING DEVICE. JACK DOBIS, Detroit, Mich. Filed Sept. 18, 1919. Serial No. 324,635. 4 Claims. (Cl. 226—108.)



1. In a dispensing device, a container for material, a measuring chamber at the bottom thereof having a discharge opening, an apertured plate through which the material from the container may flow into the measuring chamber, a filler valve normally above the aperture in the plate and movable into contact with the said plate to close the aperture therein, hinged closing means for the discharge opening of the measuring chamber, a receptacle support movable relative to the measuring chamber, movement of the support in one direction opening the hinged closing means and movement thereof in the opposite direction closing the same, springs yieldably resisting downward movement of the support and means for operating the filler valve on movement of the receptacle support.

1,417,043. MINE CAR. WALTER A. DORSEY, Columbus, Ohio, assignor to The Bonney-Floyd Company, Columbus, Ohio, a Corporation of Ohio. Filed Mar. 6, 1918, Serial No. 220,792. Renewed Aug. 11, 1921. Serial No. 491,560. 8 Claims. (Cl. 105—364.)

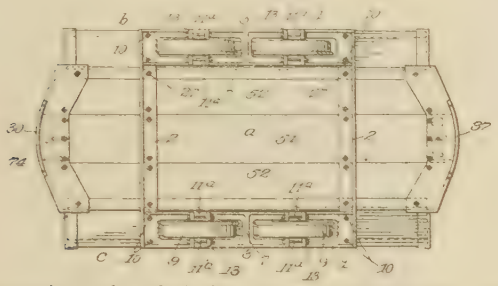


6. In a knock-down mine car, in combination: a bottom central frame having axle bearings; end frames comprising side members and bottom bars having inwardly and upwardly extending flanges and outwardly extending coupling elements which are rigid with said bottom bars; and a continuous draw bar separably united with said bottom bars and adapted to be united with said coupling elements by the draft-coupling pins.

1,417,044. CAR. WALTER A. DORSEY, Columbus, Ohio, assignor to The Bonney-Floyd Company, a Corporation of Ohio. Filed July 7, 1919, Serial No. 308,954. Renewed Feb. 24, 1922. Serial No. 539,055. 10 Claims. (Cl. 105—180.)

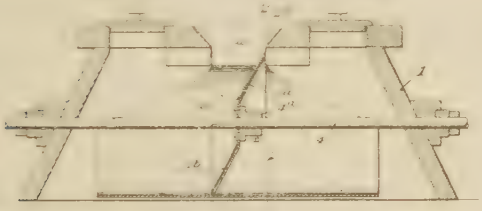
1. In a mine or industrial car, a relatively short truck frame having two wheel supporting sills, one at each side of the car, and comprising two longitudinal bars and two short end bars integral with the longitudinal bars and the cross girts each rigidly secured to both of the side sills, said sills and girts forming a unitary

frame, in combination with the car body and its base frame constituting a unitary structure separately connected to the truck frame and the base having the end



bumper bars, the relatively wide vertically disposed angle plates at the sides of the car, the uprights, and the wall closing elements rigidly secured to said end bars, side plates and uprights.

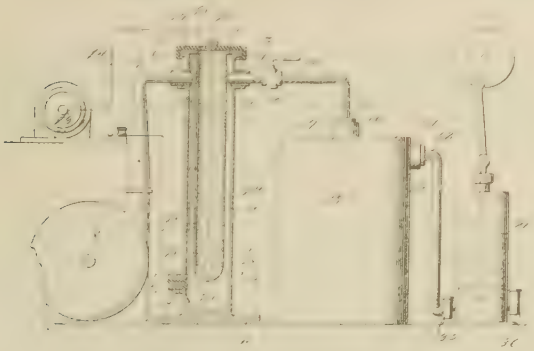
1,417,045. STOCK DIVIDER. EDWARD C. EBERTS, Jeffersonville, Ind. Filed July 19, 1921. Serial No. 485,937. 4 Claims. (Cl. 83—44.)



2

1. A stock divider comprising a stationary cylindrical casing, having an intermediate feed opening at the top, and discharge passages below and on opposite sides of said feed opening, and a divider wheel rotatably mounted in said casing below said feed opening and having segmental receiving chambers disposed on opposite sides of the plane of the axis of the opening and designed to communicate alternately with said feed opening and to discharge the material alternately into the discharge passages.

1,417,046. APPARATUS FOR PRODUCING OZONE. HARRY ELLWOOD ELLIS, Jacksonville, Fla. Filed Dec. 10, 1920. Serial No. 429,655. 2 Claims. (Cl. 204—32.)

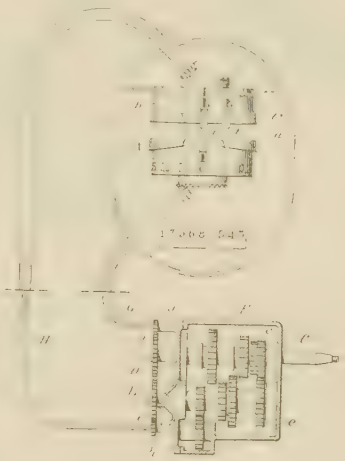


1. An apparatus for producing ozone gas, said apparatus comprising a main receptacle, an auxiliary receptacle disposed within the main receptacle for the reception of water, said auxiliary receptacle provided with a flange engaging a flange of the main receptacle, the upper end of said auxiliary receptacle being opened, a member extending across the upper end of the auxiliary receptacle, an electrode disposed within the auxiliary receptacle and suspended from the member extending across the upper end thereof, said member also forming means for securing the receptacles together, an electrode disposed within the chamber of the main receptacle adjacent the lower end thereof and means for forcing air through the main receptacle.

1,417,047. CHEMICAL COMPOSITION. CHARLES S. EPPLEY, York, Pa., assignor to New Ideal Power Company. Filed Sept. 30, 1920. Serial No. 413,910. 2 Claims. (Cl. 252.)

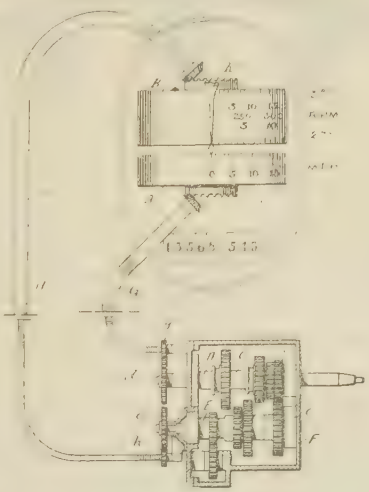
2. A chemical composition which expands under heat comprising a mixture of anhydrous ammonia, carbon dioxide and lubricating oil.

1,417,048. GEAR INDICATOR. THOMAS FARMER, Jr., New York, N. Y. Filed May 24, 1919. Serial No. 299,581. 9 Claims. (Cl. 235—103.5.)



3. An automobile gear indicator comprising two speed-responsive vibrating members, one representing the speed of a shaft having a definite speed ratio with respect to the clutch-shaft but changeable speed ratio with respect to the propeller-shaft, and the other member representing the speed of said propeller-shaft, the members being so related as to show synchronism of gears that are about to be engaged.

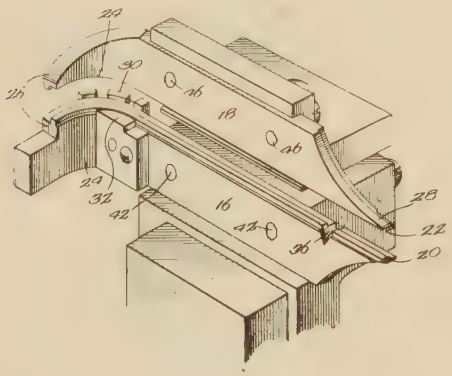
1,417,049. SPEED INDICATOR. THOMAS FARMER, Jr., New York, N. Y. Filed Aug. 21, 1919. Serial No. 319,021. 4 Claims. (Cl. 235—103.5.)



1. The combination of two shafts arranged to be disengaged and reengaged with respect to each other, and

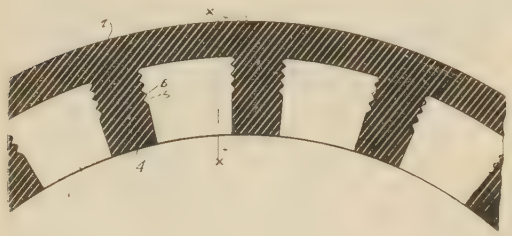
two adjacent vibrating speed indicators driven by the respective shafts, one indicator being graduated to represent the speed of its driving shaft and the other to represent the speed of its driving shaft multiplied by a factor corresponding to the gearing relation between the two shafts.

1,417,050. DIE TRACK FOR FORMING SPIRAL STEEL TUBING. JAMES FENTRESS, Chicago, Ill. Filed July 14, 1919. Serial No. 310,843. 11 Claims. (Cl. 113—35.)



1. In mechanism of the class described, two metal bars of considerable curved length and comparatively thin in one dimension, placed with their thin edges face to face, working surfaces for forming metal on said oppositely disposed thin faces and extending lengthwise of said metal bars, said working faces occupying substantially the whole of the thin opposing faces of the bar and means for rigidly securing said bars in position with reference to each other.

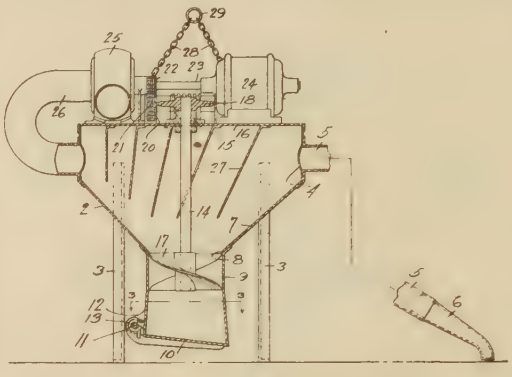
1,417,051. RUBBER TIRE. ABRAHAM L. FREEDLANDER and WILLIAM GEORGE GOODWIN, Dayton, Ohio, assignors to The Dayton Rubber Manufacturing Company, Dayton, Ohio, a Corporation of Ohio. Filed Mar. 5, 1921. Serial No. 449,778. 4 Claims. (Cl. 152—1.)



1. A tire constructed of a casing having a tread portion and interior piers extending to the inner periphery thereof, placed in succession one after another and duly spaced apart, portions of the body of the piers being omitted at places not affecting the union of the piers and the tread portion.

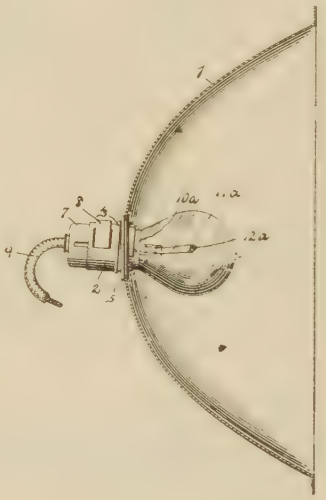
1,417,052. PNEUMATIC CONVEYER. JUSTUS A. GASTEIGER, Dormont, Pa. Filed Jan. 7, 1920. Serial No. 349,942. 1 Claim. (Cl. 183—38.)

In a pneumatic conveyer, the combination of a suitable receptacle, means for maintaining suction in said receptacle, downwardly extending baffles in said receptacle, a sealing chamber disposed below said receptacle forming a discharge outlet for same, a vertically arranged spiral conveyer in said sealing chamber and forming a close fit



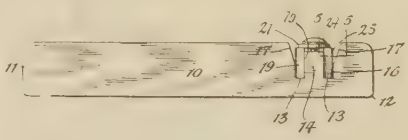
therewith, means for driving said spiral conveyer, and a spring-actuated valve controlling the discharge outlet of said sealing chamber.

1,417,053. FOCUSING DEVICE. CHARLES E. GODLEY, Detroit, Mich. Filed May 23, 1921. Serial No. 471,615. 3 Claims. (Cl. 240—44.)



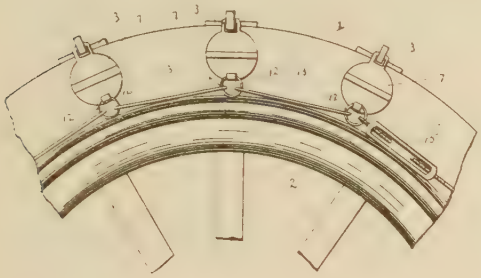
1. The combination of a reflector, a flexible thimble mounted thereon, a connector sleeve in the thimble, and a light bulb mounted in the sleeve and adapted to be moved transversely to the focal axis of the reflector by bending the thimble.

1,417,054. KNIFE SHARPENER. MARTIN T. GRAF, Buffalo, N. Y., assignor of one-half to Frank X. Irr, Buffalo, N. Y. Filed Mar. 14, 1921. Serial No. 452,197. 3 Claims. (Cl. 76—88.)



1. A knife sharpener comprising a holder bar which is provided on one side with a laterally opening notch and on its opposite side with a recess, a sharpening blade seated in said notch, a washer engaging with the outer end of said blade, a washer seated in said recess, and a rivet passing through said bar and connecting said washers.

1,417,055. NONSKID CHAIN FOR AUTOMOBILE TIRES. JAMES M. GREEN, Chicago, Ill. Filed Feb. 23, 1921. Serial No. 447,142. 3 Claims. (Cl. 152—14.)



2. In a non-skid attachment for automobile tires, cross chains and side chains, said cross chains composed of central and side disc-shaped members having ribs thereon, the ribs on the central members terminating in hooks lying beyond the plane of the disc, the said side members having eyelets cast integrally therewith and extending obliquely upwardly for engagement with the hooks on the central rib, a vertical lug carried by the side disc having an opening therein and a ring for connection to the side chains journalled in the said opening.

1,417,056. CEILING AND FLOOR CONSTRUCTION. ERIC E. HALL, Chicago, Ill. Filed Feb. 23, 1918, Serial No. 218,613. Renewed Aug. 12, 1921. Serial No. 491,875. 7 Claims. (Cl. 72—71.)

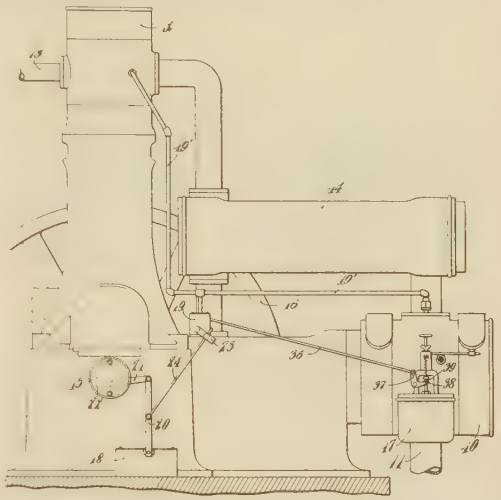
4. In a floor and ceiling construction, the combination with a flooring, of plural parallel rows of separated anchor supports firmly embedded in the under side of the flooring and secured against an upward thrust, depending rods individually secured to said supports, sheets of expanded metal having skeletonized channels open at the top formed therein parallel to the rows of supports and in which the lower ends of the rods are secured to prevent upward movement of either the channels or rods, and plaster spread upon and forced through the under side of said expanded metal to form the ceiling.

1,417,057. LUBRICATING MECHANISM. HALBERT B. HALVORSEN, Chicago, Ill., assignor to Sullivan Machinery Company, a Corporation of Massachusetts. Original application filed Oct. 30, 1918, Serial No. 260,306. Divided and this application filed Aug. 2, 1920. Serial No. 400,714. 23 Claims. (Cl. 230—24.)

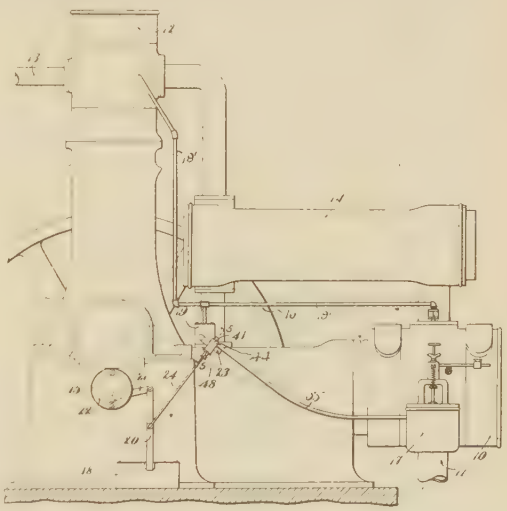
1. The combination with a compressor and unloading means therefor, of lubricating means for said compressor controlled by said unloading means.

12. The combination with a compressor having an unloading valve, of lubricating means for said compressor, and means for actuating said lubricating means including a connection rendered operative and inoperative by opening and closing of said unloading valve.

23. The combination with a compressor, of lubricating means therefor, means for actuating said lubricating means including a normally operative connecting member, and means whereby said member is withdrawn to disconnect said lubricating means from said actuating means when said compressor is unloaded.



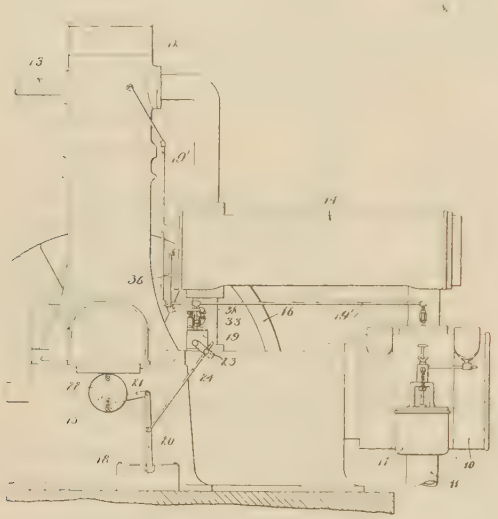
1,417,058. LUBRICATING MECHANISM FOR COMPRESSORS. HALBERT B. HALVORSEN, Chicago, Ill., assignor to Sullivan Machinery Company, a Corporation of Massachusetts. Filed Oct. 30, 1918. Serial No. 260,306. 28 Claims. (Cl. 230—24.)



5. The combination with a compressor, of mechanically driven lubricating means therefor controlled by variations in fluid pressure incidental to the loading and unloading of said compressor.

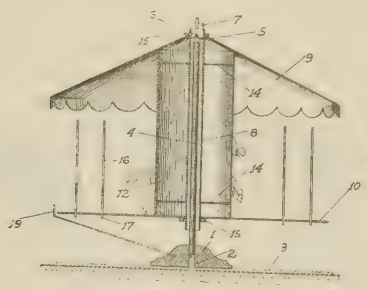
19. The combination with a compressor having an intake and an unloading valve for controlling said intake, of a lubricator for said compressor having an operating member, actuating means including a reciprocating rod, a casing carried by said operating member in which said rod is longitudinally movable, said casing having a cylinder portion, a piston in said cylinder portion, a spring for normally holding said piston in engagement with said rod to restrain the same against movement with respect to said casing, and conduit means connecting said cylinder portion with said intake, whereby when said unloading valve is closed vacuum conditions in said intake cause movement of said piston out of engagement with said rod against the tension of said spring.

1,417,059. LUBRICATING MECHANISM. HARRY C. JOHANSEN, Chicago, Ill., assignor to Sullivan Machinery Company, a Corporation of Massachusetts. Filed Mar. 18, 1919. Serial No. 283,375. 13 Claims. (Cl. 230—24.)



1. The combination with a multiple cylinder compressor having an intercooler and provided with unloading means whose operation causes variation in intercooler pressure, of lubricating means controlled by the pressure in the intercooler.

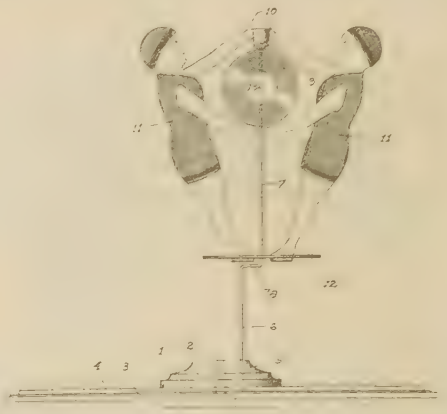
1,417,060. MERRY-GO-ROUND ATTACHMENT FOR PHONOGRAPHS. EDWARD M. HANSLEY, Stockton, Calif. Filed Jan. 26, 1921. Serial No. 439,963. 9 Claims. (Cl. 46—40.)



1. A merry go round attachment for phonographs including a base adapted to be seated centrally on a disc record, to turn therewith, a merry go round structure mounted on the base, means between said base and structure whereby the latter will normally revolve at a lesser speed than the base, and means whereby the vertical spacing of the structure from the base may be altered at will.

1,417,061. ADVERTISING NOVELTY AND TOY. EDWARD M. HANSLEY, Stockton, Calif. Filed Mar. 29, 1921. Serial No. 456,582. 3 Claims. (Cl. 46—40.)

1. A device of the character described comprising a base adapted to be mounted on a phonograph record for rotation therewith, an upright stem mounted on the base, the upper portion of said stem being off-set from the



lower portion but substantially parallel thereto, and fanciful members supported by and turnably mounted on the offset portion of the stem.

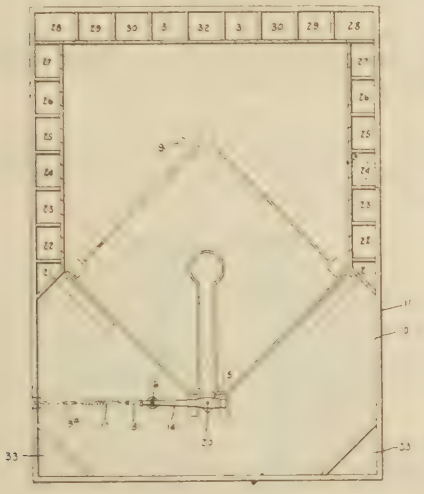
1,417,062. ELECTRIC TRANSPORTATION SYSTEM. ELBERT E. HAWKINS, Binghamton, N. Y. Filed Oct. 14, 1920. Serial No. 416,878. 13 Claims. (Cl. 104—88.)

1. In an electric railway system, the combination of a receiving station and a plurality of local stations, a suspended main line track connecting the plurality of local stations with the receiving station, a suspended local branch track having its terminals arranged adjacent to the main line track, switches at the junctions of the terminal of the local track with the main line track for momentarily directing electrically propelled vehicles from the main line track to one end of the local track and permitting the vehicle to pass from the other end of the local track on to the main line track, a plurality of electrically propelled vehicles adapted to run upon the main line track, electrically operated motor means at each local station for controlling the switch thereat which directs the incoming vehicles from the main line track on to the local track, and electric circuit controlling means upon the respective electrically propelled vehicles for energizing the electrically operated motor means whereby said vehicles belonging to the respective local stations will automatically control the operation of the switches of the corresponding local station so that the vehicles belonging to the respective stations will automatically leave the main track and respectively pass upon the local tracks when they reach the proper local station.

1,417,063. BASEBALL GAME. SAMUEL F. HIMES, Indianapolis, Ind. Filed Nov. 24, 1919. Serial No. 340,183. 3 Claims. (Cl. 46—61.)

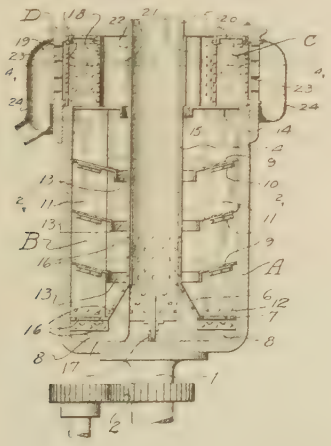
1. A baseball game including a flat base-board suitably marked to represent a miniature diamond, the bases being

positioned intermediate the corners of the board, compartments arranged around the end opposite the second base and along the adjacent sides thereof up to the first and third bases, said compartments projecting above the plane of the board and being positioned around the edges of said board to provide a relatively large and unobstructed outfield area, each compartment having an opening therein



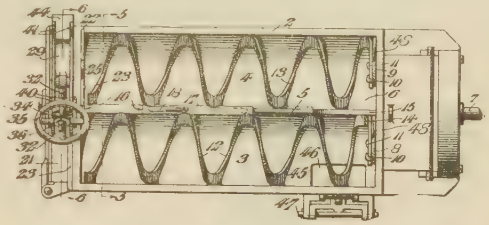
adapted to receive the batted ball, a bat positioned adjacent the home plate for batting the ball into one of said compartments, and an upstanding pin positioned within each compartment adjacent the opening thereof for deflecting the batted ball into said compartment and for retaining said deflected ball in said compartment after the same has passed through the opening thereof.

1,417,064. CENTRIFUGAL SEPARATOR. CHARLES H. HOLMGREN, Bloomfield, N. J. Filed Feb. 25, 1921 Serial No. 447,710. 7 Claims. (Cl. 233—2.)



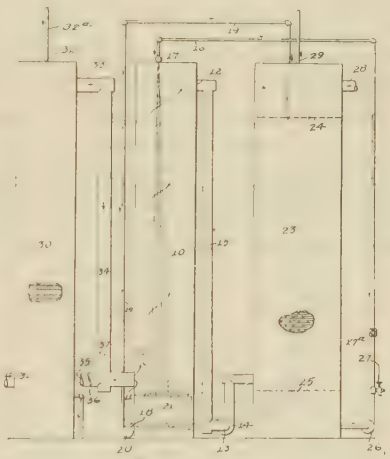
1. A centrifugal separator including a revoluble casing provided with a separating chamber therein having an inlet for the liquid to be clarified at one end of said chamber and an outlet at the other end, and a plurality of spaced baffle plates arranged between said inlet and said outlet, snugly fitting the interior walls of said chamber and provided with openings axially arranged with respect to said casing and gradually decreasing in size from said inlet to said outlet.

1,417,065. CUTTING AND MIXING MACHINE. CHARLES W. HOTTMANN, Philadelphia, Pa., assignor to Christopher Offenhauser, Philadelphia, Pa. Filed Feb. 5, 1921. Serial No. 442,601. 15 Claims. (Cl. 17—20.)



4. In a cutting and mixing machine, a casing having a cutting chamber with a portion of its peripheral wall forming a valve controlling discharge from said chamber, means to actuate said valve, and cutting mechanism in said cutting chamber.

1,417,066. PROCESS FOR ENRICHING METALLURGICAL GASES CONTAINING SULPHUR DIOXIDE. GUY C. HOWARD, Tacoma, Wash, assignor to American Smelting & Refining Company, a Corporation of New Jersey. Filed Nov. 29, 1918. Serial No. 264,555. 14 Claims. (Cl. 23—1.)



1. In the art of forming a substance having a relatively high sulphur dioxide content from a gas having a relatively low sulphur dioxide content, the process which consists in discharging sulphur dioxide gas from a water solution thereof and causing said discharged gas to mix with said relatively low sulphur dioxide content gas thereby to increase the sulphur dioxide content of said low content gas.

1,417,067. PROCESS FOR RECOVERING SULPHUR DIOXIDE FROM WASTE METALLURGICAL GASES. GUY C. HOWARD, Tacoma, Wash., assignor to American Smelting & Refining Co., a Corporation of New Jersey. Filed Mar. 6, 1919. Serial No. 281,010. 14 Claims. (Cl. 23—1.)

1. In the art of recovering sulphur dioxide from gases, the process which consists in passing a solution containing sulphur dioxide counter current through a mixture of sulphur dioxide gas and water vapor and then removing the sulphur dioxide from said solution.

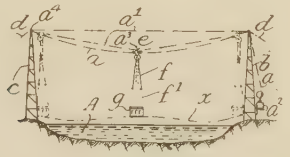
1,417,068. PROCESS FOR MAKING SULPHUR FROM SULPHUR DIOXIDE. GUY C. HOWARD, Tacoma, Wash., assignor to The American Smelting & Refining Co., a Corporation of New Jersey. Filed Sept. 9, 1918, Serial No. 253,157. Renewed Nov. 28, 1921. Serial No. 518,428. 9 Claims. (Cl. 23—10.)

3. In the art of producing sulphur from liquid sulphur dioxide, the process which consists in vaporizing the liquid, subjecting air to the action of a refrigerant agent, mixing the refrigerated air with the vaporized sulphur dioxide gas and reducing the mixture.

1,417,069. PRESSED-STEEL AUTOMOBILE BRAKE-SHOE CONSTRUCTION. WILLIAM Q. HOWELL and CRANSTON B. RADER, Denver, Colo. Filed Apr. 4, 1921. Serial No. 458,203. 12 Claims. (Cl. 188—259.)

5. An annular brake shoe of the character disclosed, in which the curvilinear complementary sections thereof are each shaped from a flat blank of sheet metal of suitable thickness, which flat blank is simultaneously punched and cut to initially provide a longitudinal series of apertures, a tongue at one end having a curved side edge face, and triangular side edge face recesses towards the other end thereof, forming a neck terminating in a head portion, the said punched and cut blank being subsequently bent into the integral form of an internally channeled segmental section, and the said head portion being inturned at its neck for closing said side edge face recesses, to provide a trussed engaging face for an operating expanding element, substantially as described.

1,417,070. SUSPENSION TRANSPORTER ARRANGEMENT. ALEXANDER GEORGE MCKENZIE JACK, Sheffield, England. Filed Dec. 8, 1919. Serial No. 343,439. 13 Claims. (Cl. 104—90.)



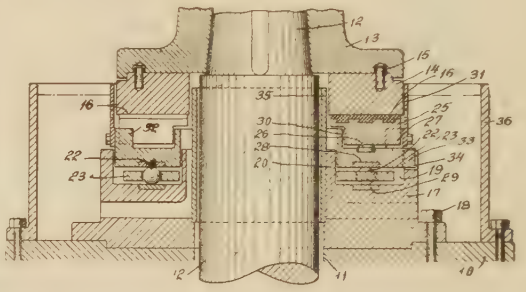
1. A suspension transporter arrangement comprising overhead flexible suspension means, standards between which said suspension means is supported, a controller carried by and adapted to travel along said suspension means, gear mechanism on said controller, said flexible suspension means being adapted to gear with and positively drive said gear mechanism when the controller is moved along said suspension means, compensating lowering and raising mechanism carried by said controller and driven from the gear mechanism thereon, and suspending means for a platform or support said raising and lowering mechanism acting to raise the suspending means when the controller descends the curved portions of the flexible suspension means and to lower said suspending means when the controller ascends the curved portions of the flexible suspension means.

1,417,071. GRAVITY TOY RAILROAD. ARTHUR E. JONES, Ridley Park, Pa. Filed June 14, 1921. Serial No. 477,387. 3 Claims. (Cl. 46—47.)

1. In a gravity toy railroad, a central section having tracks thereon, outer sections also having tracks thereon and hinged to the ends of said central sections, the tracks of said central and outer sections being in alignment, abutments at the outer ends of the hinged outer sections,

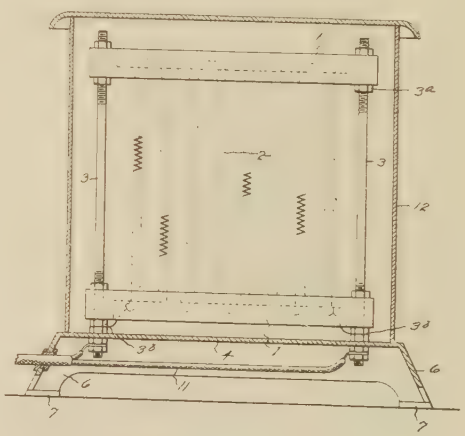
a cord extending between said abutments and passing unded a pulley supported upon said central section and signalling devices operated by said pulley.

1,417,072. BEARING. ALBERT KINGSBURY, Pittsburgh, Pa. Filed Aug. 16, 1916. Serial No. 115,124. 43 Claims. (Cl. 64—25.)



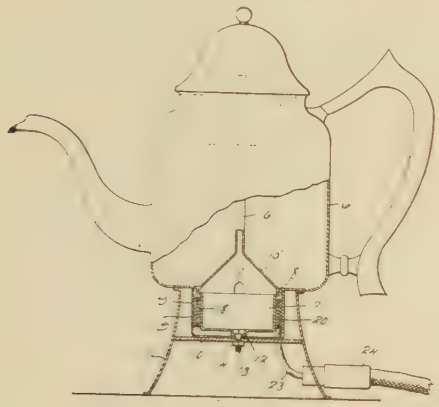
1. A bearing comprising a movable load carrying member, a stationary member, a pair of cooperating bearing parts interposed between the seationary and movable members and respectively associated therewith, rolling bearing members interposed between one of the bearing parts and the member with which it is associated and arranged to be active in either direction, and means for rendering the rolling bearings inactive after the bearing has been started in either direction.

1,417,073. ELECTRIC HEATER. HENRY KRUESHELD, New Washington, Ohio, assignor to The Perfection Electric Products Co., New Washington, Ohio, a Corporation of Ohio. Filed Feb. 1, 1921. Serial No. 441,525. 2 Claims. (Cl. 219—70.)



1. A heating element comprising a pair of bars, a coil extending between the bars, and spacing rods separating the bars, and adapted to tension the coil, the ends of the rods being extended beyond one of the bars and serving to rigidly attach the element to a support.

1,417,074. ELECTRICALLY-HEATED COOKING UTENSIL. HENRY KRUESHELD, New Washington, Ohio, assignor to The Perfection Electric Products Co., New Washington, Ohio, a Corporation of Ohio. Filed June 29, 1921. Serial No. 481,288. 2 Claims. (Cl. 219—44.)

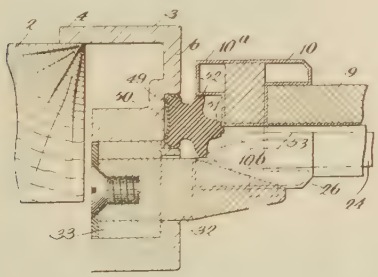


1. An electrically heated vessel having a well depending from the bottom thereof, a heating element surrounding said well and a cup enclosing said heating element.

1,417,075. PRODUCTION OF HEAT AND ITS APPLICATION FOR HEATING LIQUIDS AND OTHER PURPOSES. DAN LA COUR, Charlottenlund, near Copenhagen, and CECIL VILHELM SCHOU, Copenhagen, Denmark. Filed Sept. 30, 1915. Serial No. 53,474. 4 Claims. (Cl. 44—3.)

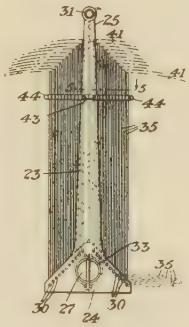
2. A heating cartridge comprising a capsule, a non-carbon combustible mixture contained therein, an igniting mixture comprising magnesium and a stable oxide of a heavy metal and not readily inflammable per se, said igniting mixture being disposed within a cavity in said combustible mixture.

1,417,076. WINDSHIELD. ALBERT L. LAMBERT, Narbeth, and ALFRED BELL, Philadelphia, Pa., assignors to American Motor Body Company, Philadelphia, Pa., a Corporation of Delaware. Original application filed Jan. 29, 1920, Serial No. 354,834. Divided and this application filed Mar. 2, 1921. Serial No. 449,009. 5 Claims. (Cl. 296—93.)



1. In a wind shield, the combination of fixed side frame members having vertical channels therein, upper and lower wind shields pivotally secured to said members to extend between the same, said shields extending in parallel planes when closed, overlapping at their respective lower and upper edges, and continuous wiping strips mounted in said channels and extending substantially from top to bottom of said members, said strips being so formed and positioned as to make contact with the edges of both said shields when the latter are closed.

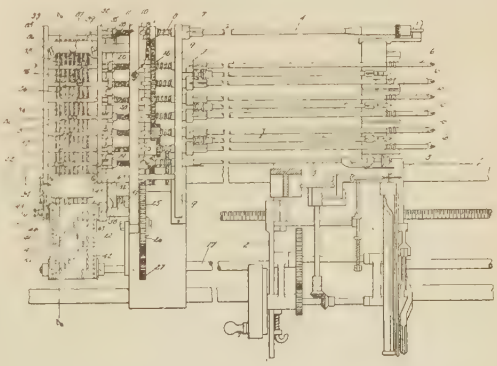
1,417,077. PRINT-WASHING DEVICE. VERA F. LANGTON and JAMES J. UNDERWOOD, New York, N. Y. Filed July 8, 1915, Serial No. 38,825. Renewed Oct. 19, 1921. Serial No. 508,829. 21 Claims. (Cl. 95—98.)



1. In a device of the class described, a washing tank provided with a compartment for containing a washing bath, perforated flexible means for positioning a flexible sheet to be washed vertically in said bath and means for causing currents of liquid to pass in said bath vertically past all portions of said flexible sheet, said tank provided with an outlet below said sheet positioning means and spaced therefrom to form a compartment for the liquid below the sheets whereby all portions of the sheet is subjected to a vertically falling sheet of liquid which drains off the entire lower edge of each sheet.

12. A book form of carrier for handling wet sheets comprising a base portion and a pair of vertically disposed end standards extending upwardly from opposite ends of the base portion, a plurality of sheet carrying frames positioned between and having their lower edges pivotally supported in the end standards whereby each frame can be lowered into a horizontal position or raised into a vertical stacked position and fastening means spaced from the pivoted edge of the frames and secured to the standards for securing any number of the vertical edges of the frames to the adjacent standard on each end thereof.

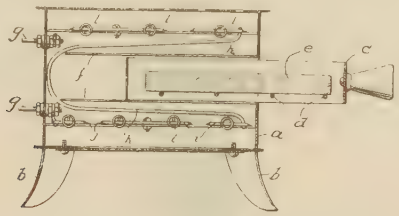
1,417,078. PATTERN MECHANISM. CHARLES LEA, Boston, Mass., assignor, by mesne assignments, to Shawmut Engineering Company, Boston, Mass., a Corporation of Massachusetts. Filed Apr. 22, 1912. Serial No. 692,468. 51 Claims. (Cl. 28—44.)



1. In a machine having a plurality of operating parts to be intermittently actuated, a series of clutch members

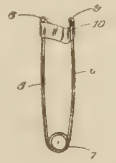
for intermittently controlling said respective parts, a common actuator for all of said clutch members as a group, and pattern-controlled devices for rendering effective selected clutch members.

1,417,079. ELECTRIC HEATING DEVICE. WILLIAM F. LEBZELTER, Elizabethtown, Pa., assignor, by mesne assignments, to Earl M. Miller, Elizabethtown, Pa. Filed Feb. 3, 1921. Serial No. 442,022. 3 Claims. (Cl. 219—19.)



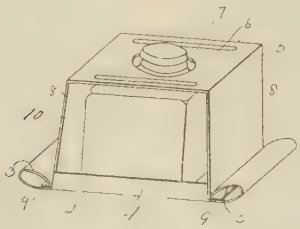
1. An electric heating device comprising a body, a plurality of bus bars, perforated adjacent their edges, supported by said body, and a plurality of coiled resistance wires the ends of which are hooked for engagement with said bars.

1,417,080. SAFETY PIN. GUST LETMOLEE, Kandahar, Saskatchewan, Canada. Filed Aug. 24, 1921. Serial No. 494,806. 2 Claims. (Cl. 24—156.)



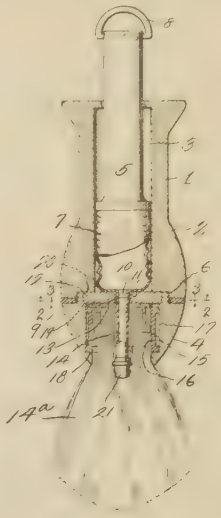
1. A safety pin of the character described comprising in combination a body member, a piercing member, a coil spring positioned intermediate the said body and piercing members, locking mechanism substantially mounted on the upper terminal of the said body member, said locking member comprising a flat piece of metal bent around and substantially mounted to the upper terminal of the said body member, a portion extending from the said terminal of the said body member, in spaced relation to the terminal of the said piercing member, a wall cottised angularly from the said extending portion, a semi-circular configuration at the terminal of the said wall, a lug on the said semi-circular configuration, and an arcuate terminal on the said lug.

1,417,081. INK-BOTTLE HOLDER. WALTER B. MCCONNELL, Philadelphia, Pa. Filed June 8, 1921. Serial No. 476,048. 6 Claims. (Cl. 120—73.)



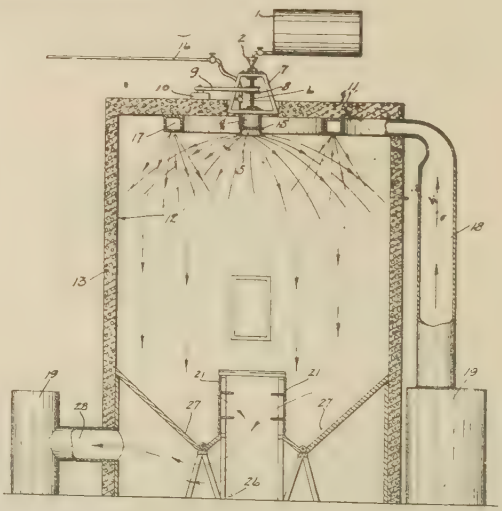
2. An ink bottle holder consisting of a base and a body, said base having an overlapping flange at each end and said body including side walls having an outward tension and provided with outwardly projecting flanges contacting with the overlapping flanges and normally held in engagement therewith by the outward tension of said side walls.

1,417,082. FOUNTAIN SHAVING BRUSH. VINCENT J. MCNAMARA, New York, N. Y. Filed Nov. 1, 1921. Serial No. 512,027. 2 Claims. (Cl. 15—135.)



1. A shaving brush comprising a handle member, said handle member being provided with a detachable chambered end, a shoulder carried at the lower end of the detachable chambered end, a bristle carrying member disposed on the shoulder of the detachable chambered end of the handle and disposed within the chamber thereof, a disc disposed in the upper end of the chamber of the detachable chambered end of the handle, a soap conducting tube extending downwardly from said disc and terminating in the bristles of the brush, a resilient member carried by said tube, a plunger slidably mounted in a chamber of the handle member, and means whereby a collapsible soap tube may be supported on the disc with its discharge opening in registration with the tube carried by the disc and in registration with the plunger.

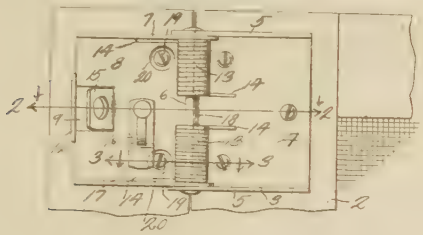
1,417,083. REDUCING SEMIFLUID FOOD SUBSTANCES TO DRY POWDERED FORM. JOHN C. MACLACHLAN, St. Paul, Minn. Original application filed Aug. 2, 1920. Serial No. 400,571. Divided and this application filed Apr. 9, 1921. Serial No. 460,057. 9 Claims. (Cl. 99—5.)



5. The process of preparing a breakfast food from oatmeal which consists in thoroughly cooking the oatmeal,

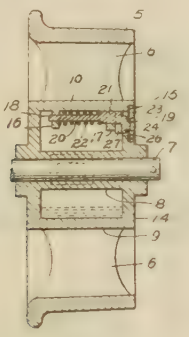
discharging the same while in a semi-fluid condition centrifugally in an umbrella like shower, directing a blast of hot dry steam through said shower to disintegrate the same, and directing a blast of heated air through said shower to form a dry coarse powdered material.

1,417,084. SPRING HINGE. FRANK X. MAIER, Sterling, Ill. Filed Nov. 1, 1921. Serial No. 512,029. 2 Claims. (Cl. 16—188.)



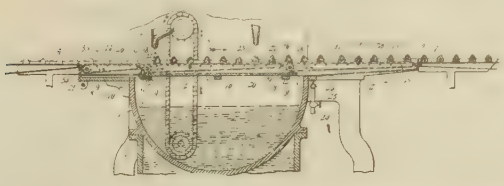
2. A spring hinge comprising hingedly connected leaves, springs for normally forcing said leaves towards an aligned position, a lug carried by one of said leaves, a member pivoted to the other leaf and adapted to be moved into engagement with the lug of the adjacent leaf for holding the leaves in angular positions in relation to each other.

1,417,085. MINE-CAR WHEEL. CHARLEY MALT, Irwin, Pa. Filed June 1, 1921. Serial No. 474,306. 3 Claims. (Cl. 64—26.)



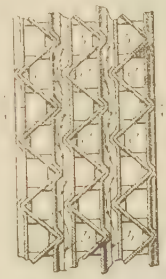
1. The combination with a mine car axle, of a wheel journaled thereon and having a hub-bearing member slotted to provide a lubricant passage, a chamber surrounding the bearing member and having a curved outer wall provided with an offset, a filling device within said offset and feeding fingers extending from said hub-bearing member to said curved wall for guiding lubricant through said lubricant passage.

1,417,086. CONFECTIONERY-COATING MACHINE. JOHN MASSARELLA, Cincinnati, Ohio. Filed Jan. 31, 1920. Serial No. 355,531. 10 Claims. (Cl. 91—3.)



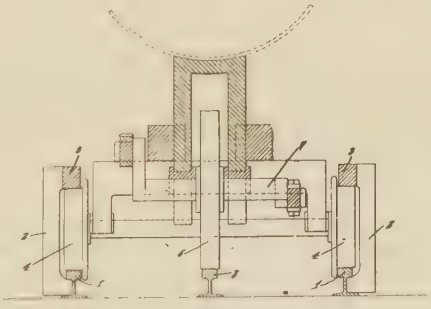
1. In a machine of the character described, a conveyor having a confection-receiving side, and having openings for passage of coating material downwardly through said conveyor, means for driving said conveyor, means for dropping coating material on said side of said conveyor, and means for catching some of said material and reapplying the caught material directly to said side of said conveyor, whereby some of said reapplied material is applied to the bottoms of confections placed on said reapplied material and some of the dropping material is applied to the upper parts of said confections.

1,417,087. RADIATOR CONSTRUCTION. PETER MATHES, Chicago, Ill. Filed Jan. 5, 1920. Serial No. 349,492. 6 Claims. (Cl. 257—130.)



1. A plurality of tubes each comprising a plurality of plates offset between their edges to substantially provide a channel web and a pair of side flanges, said tubes secured together at their flanges, the plates having inwardly extending ribs between the flanges and arranged with the ribs of one disposed substantially midway between the ribs of the other, said ribs terminating flush with the plane surface of their channel webs, and a spacing member arranged between the tubes and secured thereto, said spacing member having means interengaging with said tubes for preventing relative lateral movement therebetween.

1,417,088. RAILWAY. PEYTON L. MATHEWS, Baton Rouge, La. Filed Feb. 24, 1921. Serial No. 447,530. 1 Claim. (Cl. 105—144.)

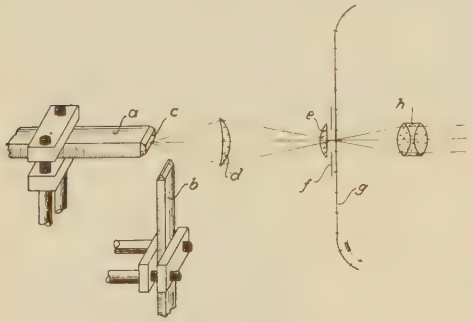


The combination with track rails and a third rail therebetween, of guard rails above and parallel with the track rails, a motor vehicle having wheels mounted on the track rails and extending under and retained by the guard rails, said wheels supporting a portion of the weight of the vehicle, and being flanged, and a flangeless power driven propelling wheel bearing on the third rail and supporting a portion of the weight of the vehicle.

1,417,089. ILLUMINATING DEVICE FOR MOVING-PICTURE APPARATUS. EMIL MECHAU, Rastatt, Germany. Filed May 7, 1921. Serial No. 467,588. 3 Claims. (Cl. 88—24.)

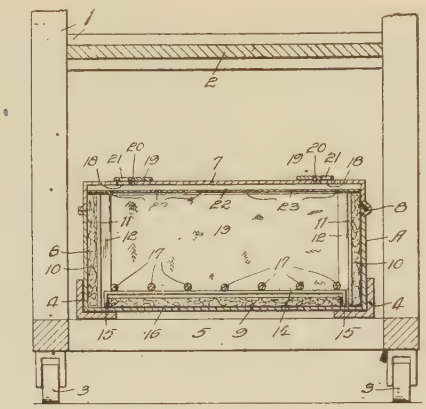
3. In an illuminating device for moving picture apparatus in combination, a positive and a negative carbon of rec-

tangular cross-section of an electric arc lamp and a collecting optical system of suitable focal length so related there-



to that the crater of the arc lamp is reproduced in the projector gate of the apparatus.

1,417,090. SOLE-TEMPERING BOX. CHARLES M. MELLAGE, St. Louis, Mo. Filed Dec. 6, 1920. Serial No. 428,514. 3 Claims. (Cl. 12—1.)



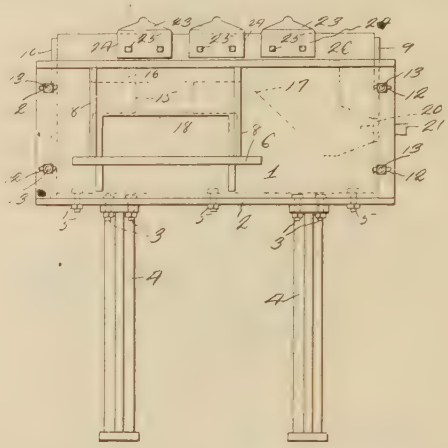
1. A shoe sole tempering box comprising a box like member having a hinged top, means positioned within said box for supplying moisture thereto for retaining the temper of shoe soles stored therein and means for ventilating said shoe sole tempering box.

1,417,091. LIQUID DAM PREPARATION. EDWARD C. MILLER, Williamsport, Pa. Filed Sept. 30, 1920. Serial No. 413,934. 1 Claim. (Cl. 167—9.)

A liquid dam preparation comprising a solution of alcohol, menthol in an amount sufficient to produce an astringency and dehydration of the tissue, and substantially one-half of one per cent of formaldehyde.

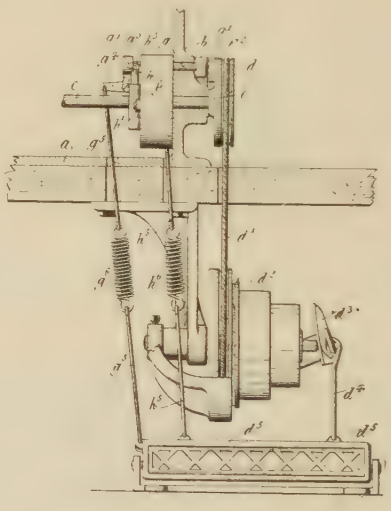
1,417,092. CRUDE-OIL-BURNING FURNACE. RICHARD MOELLER and OSCAR OTTERSON, Michigan City, Ind. Filed Aug. 13, 1920. Serial No. 403,435. 1 Claim. (Cl. 263—43.)

A furnace comprising a heating chamber and an elongated combustion chamber, one end of said combustion chamber being disposed above the heating chamber and having a passage of communication vertically disposed with the heating chamber, said combustion chamber extending downwardly to one side of the heating chamber, means for projecting fuel into the downwardly extending end of the combustion chamber, a metallic casing for the furnace comprising bottom, end and side plates, an aperture in one of the end plates in registration with the downwardly extending end of the combustion chamber for the



reception of a burner, transversely disposed clamping members for holding the upper end of the furnace, and means whereby the metallic sides and ends may move in relation to each other incident to expansion.

1,417,093. STOPPING MECHANISM FOR SEWING MACHINES, ETC. GEORGE E. MOLYNEUX, Bayonne, N. J. Filed July 25, 1917. Serial No. 182,603. 7 Claims. (Cl. 192—116.)

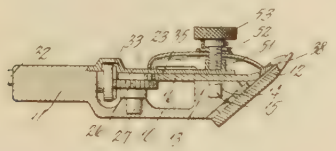


1. In a stopping mechanism, the combination of a relatively stationary member, a rotatable member, means to effect positive connection of said members, and a dashpot in operative relation with the connecting means to retard the operation thereof.

1,417,094. HAIR CLIPPER. COLLIER MONROE, Waco, Tex. Filed Mar. 25, 1922. Serial No. 546,553. 4 Claims. (Cl. 30—1.)

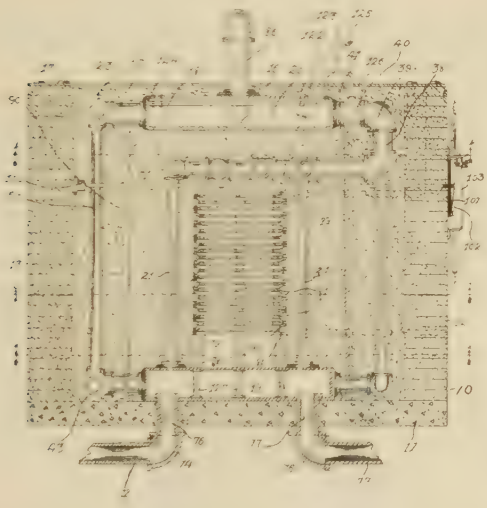
1. In a hair clipping device, a casing, a cutter blade carried at the front end of the casing, a reciprocating cutter blade operating on the first named cutter blade, an operating lever having a depending pivot element mounted in the casing and engaged with the reciprocating blade, means for swinging the lever to reciprocate said blade, a cover plate mounted on the casing and combining the lever in

position, a tension plate having one end resting on the cover plate and the other end engaging the reciprocating blade, a thumb screw passing through the tension plate



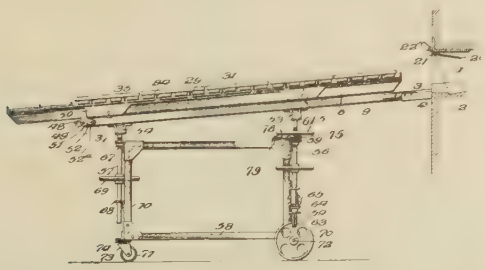
and engaging the cover plate, and a spring means between the screw and the plate for placing the latter under tension.

1,417,095. FURNACE. ROBERT P. MOODIE, Ottawa, Ontario, Canada, assignor of one-third to William Henry McIntyre and one-third to Adolphe Alfred Dion, Ottawa, Ontario, Canada. Filed Nov. 26, 1920. Serial No. 426,573. 20 Claims. (Cl. 219—38.)



1. A heat generating furnace, comprising a casing, water reservoirs mounted within said casing and connected with a water supply, heat generating elements arranged in said casing, a series of pipes connecting said reservoirs and surrounding said heat generating elements and means for heating said elements.

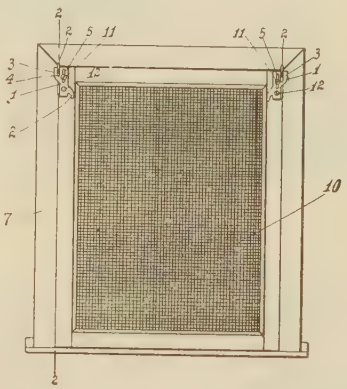
1,417,096. OVEN TRUCK. GEORGE MUELLER, Salt Lake City, Utah. Original application filed Aug. 23, 1920, Serial No. 405,362. Divided and this application filed Aug. 23, 1920. Serial No. 405,364. 7 Claims. (Cl. 107—56.)



1. An oven truck comprising a frame provided at one end with a single centrally arranged adjusting screw and having at the other end spaced double adjusting screws, a fixed nut mounted on the frame and engaging the single adjusting screw, an adjustable nut mounted on the frame and provided with operating means engaging the double adjusting screws, gearing connecting the double adjusting screws, means for rotating the double adjusting screws, and a tray carrying frame mounted upon and supported by the said screws and adapted to be arranged either in a horizontal or inclined position.

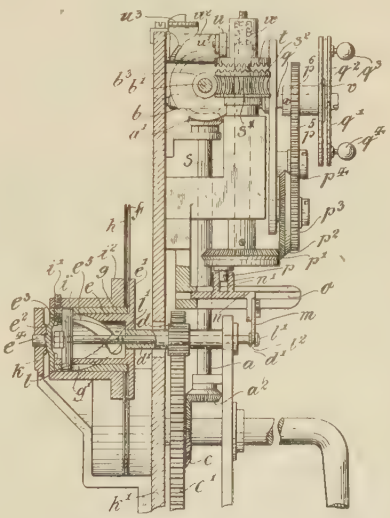
6. An oven truck including a truck frame, an adjustable superimposed track carrying frame comprising rails, spaced connecting bars arranged in pairs and central and side blocks secured between the connecting bars and provided with sockets, center and side adjusting screws mounted on the truck frame and arranged at opposite side of one end of the truck and at the center of the other end thereof and fitting in the screws and means for adjusting the screws.

1,417,097. WINDOW-SCREEN HINGE. HENRY MULLER, Oakland, Calif. Filed Jan. 25, 1921. Serial No. 439,748. 1 Claim. (Cl. 16—172.)



A hinge including a pair of leaves, a hook extending from one corner of each leaf, an offset on each leaf diagonally opposite the hook of the leaf, the offset of each leaf having a slot to receive the hook from the other leaf, and means for securing the leaves in position.

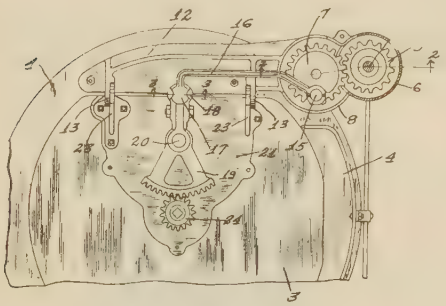
1,417,098. SHUTTER MECHANISM FOR MOTION-PICTURE MACHINES. ERIK W. NELSON, New Rochelle, N. Y. Filed Aug. 4, 1919. Serial No. 315,093. 5 Claims. (Cl. 88—19.3.)



1. In a motion picture camera, in combination with the main drive shaft, a plurality of shutter segments,

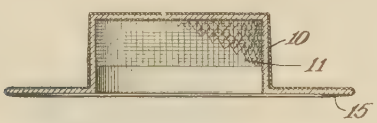
devices for changing the angular relation of the segments, and means to connect said devices operatively with the main drive shaft including a shaft operatively connected with said devices, a gear loosely mounted on the shaft, a second shaft driven from the main shaft and carrying a gear in mesh with the first named gear, and a slidable clutch element splined on the first named shaft and engageable with the first named gear.

1,417,099. OPERATING MECHANISM FOR WASHING MACHINES. JOHN NELSON and GEORGE SEEDS, Newton, Iowa, assignors to Automatic Electric Washer Co., Inc., a Corporation of Iowa. Filed May 26, 1921. Serial No. 472,675. 2 Claims. (Cl. 74—50.)



1. In a washing machine having a cover hinged to the top thereof, a driven shaft journalled in said cover and having a gear at its upper end, a gear segment pivoted to said cover and meshing with said gear, said gear segment having a power arm provided with a socket at its end, a pitman having a spherical knob operatively connected in said socket and means for reciprocating said pitman.

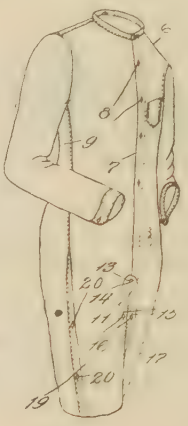
1,417,100. WATERPROOF HAT PROTECTOR. BARNA NEWMAN, New York, N. Y. Filed Feb. 9, 1921. Serial No. 443,601. 2 Claims. (Cl. 2—108.)



1. A hat protector comprising a covering member having a marginal portion adapted to project inwardly under the brim of the hat, said marginal portion being radially slit into several sections and having its edge backturned to form an annular chamber, an elastic band extending partially around said chamber, cords attached to the ends of said band, and means for preventing withdrawal of the ends of the said band from the sections of the said marginal portion in which they are engaged.

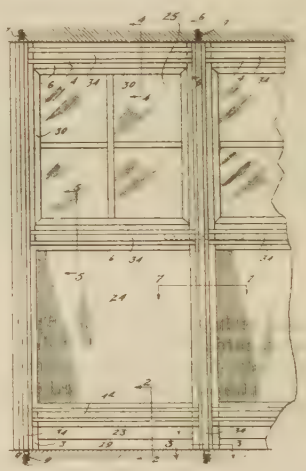
1,417,101. SHIRT. PHILIP H. NOLTING, St. Louis, Mo. Filed July 16, 1919. Serial No. 311,300. 1 Claim. (Cl. 2—144.)

The improvement in shirts comprising a coat-shirt having a back section provided with a gore; a substantially rectangular crotch-piece secured at its rear edge to the edge of said gore; and having central and side button-holes along its free edge; two front flaps extending downwardly from the front of the shirt, one of said flaps being permanently secured to the back section and the other of said flaps being secured to the meeting



edge of the back sections by buttons and so arranged to be opened while leaving the crotch-piece in closed position.

1,417,102. SHEET-METAL PARTITION. JOHN O. NYMAN and JOHN P. PEARSON, Canton, Ohio. Filed May 29, 1920. Serial No. 385,177. 8 Claims. (Cl. 189—34.)



1. In a metallic partition, a hollow upright formed of two channel shaped members, each of said channel shaped members having a central, inwardly disposed portion, panels located between the channel members of said uprights and bolts located through the channel portions of the channel members for clamping the upright together upon the edge portions of the panels, and filler strips located in said channel portions and covering said bolts.

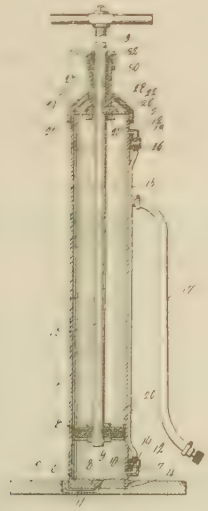
1,417,103. OIL COMPOSITION. JAY I. O'BANION, Seattle, Wash. Filed Jan. 16, 1922. Serial No. 529,794. 5 Claims. (Cl. 134—54.)

4. A method of compounding an oil composition consisting in boiling fifty gallons of raw linseed oil and s ven pounds of vulcanized rubber for approximately four hours at 440 degrees temperature, cooling the mixture, and then adding five gallons of benzine and five gallons of liquid drier.

1,417,104. WINDOW-SCREEN ADJUSTER. PETER CAROL PACHESA, Taylor Springs, Ill. Filed May 6, 1921. Serial No. 467,246. 1 Claim. (Cl. 156—39.)

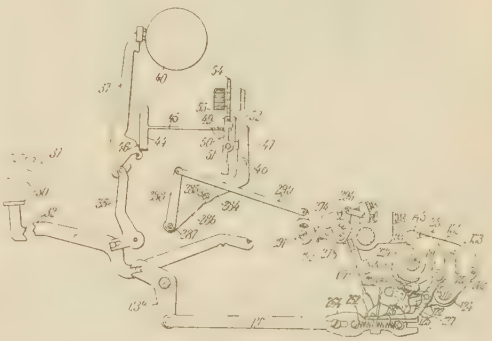
In a screen adjuster, the combination with a window frame, a sash operable therein, the sill of said frame containing a narrow passage extending the width of the window opening, of a roller rotatably mounted below said sill and extending from jamb to jamb of said frame, a bracket secured on the outside of one of said jambs, a spindle fixed in said roller extending through said jamb and said bracket, a flat spiral spring fixed at one end to said bracket and at the other to said pintle, a ratchet wheel on said spindle, a pawl engageable with said ratchet wheel, said pawl being operable from the exterior of the window frame, and a screen passing through said passage and engaged at its ends respectively with said sash and said roller.

1,417,105. DOUBLE-ACTION PUMP. EDWARD E. PIGG, Weatherford, Okla. Filed June 24, 1920. Serial No. 391,376. 2 Claims. (Cl. 230—27.)



1. A double acting pump comprising a cylinder, a by-pass communicating with the upper and lower ends of the cylinder and leading to a common outlet, a check valve at each end of the by-pass, an air inlet valve for the lower end of the cylinder, a piston in the cylinder, a cap for the upper end of the cylinder through which the piston passes, an air inlet valve for the upper end of the cylinder frictionally mounted upon the upper end of the piston, and a partition carried by the cap and spaced from the top thereof for limiting the movement of the valve carried by the piston.

1,417,106. COMBINED TYPEWRITING AND COMPUTING MACHINE. HENRY L. PITMAN, Elizabeth, N. J., assignor to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Mar. 13, 1919. Serial No. 282,277. 66 Claims. (Cl. 235—59.)



1. In a combined typewriting and computing machine, the combination of a driving shaft, a driven shaft, a series of computing units through the medium of which the driven shaft may be rocked through different angular distances to compute values from one to nine, inclusive, each computing unit comprising a cam on the driving shaft, adapted to co-operate with an arm on the driven shaft, and a stop to limit the movement of said driven shaft, a series of actuating elements, one for each computing unit, devices connected to said actuating elements, said stops being of various lengths and forming parts of said devices, co-operating members on said driven shaft to co-operate with said stops, and adjusting screws to facilitate individual adjustmens between said devices and said stops.

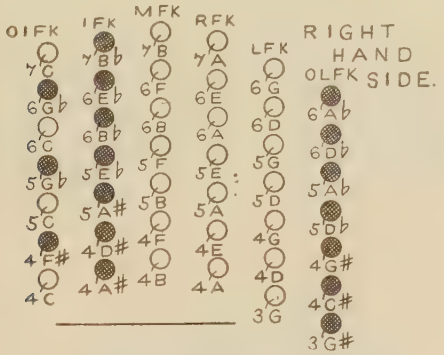
31. In a combined typewriting and computing machine, the combination of number-printing devices, computing mechanism, actuating mechanism for said computing mechanism, adapted when started by a number-printing device to act through one complete cycle, and means to prevent separate impressions of the same number without effecting computations of the same.

65. In a combined typewriting and computing machine, the combination with computing mechanism and number-keys, of driving means to actuate said computing mechanism, a holding pawl for said driving means, key-controlled means to actuate said holding pawl to release said driving means, and means to release said holding pawl from said key-controlled means after the driving means has been released.

1,417,107. CONCERTINA KEYBOARD. FRANCIS STANHOPE PITT-TAYLOR, Blackpool, England. Filed Nov. 11, 1919. Serial No. 337,353. 3 Claims. (Cl. 84—37.6.)

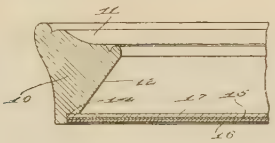
2. A keyboard with the keys grouped in pairs of rows of six, the keys of every pair being able to sound when pressed the naturals and the chromatics of one octave, those for the chromatic sounders being for one row the three outermost keys one on the one side and two on the other side of one row, and for the other row one outermost key on one side and one key next to an outermost key on the other side of the other row sounding in the first row the notes C sharp, D sharp and F sharp, and in the other

row G sharp and A sharp; every alternate row having keys for chromatic sounders of the same name and in the



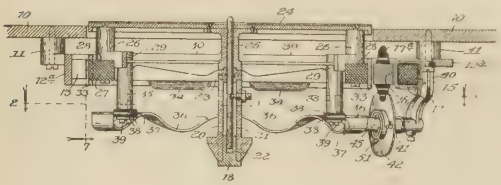
same position that only differ from each other by being in octaves of lower or higher pitch substantially as described.

1,417,108. PICTURE FRAME. BENJAMIN PROCTOR, Jr., Wellesley Hills, Mass. Filed Oct. 11, 1921. Serial No. 506,952. 2 Claims. (Cl. 40—152.)



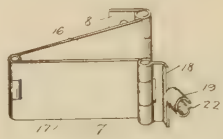
1. A picture frame having its moulding so arranged that the plane of the sight is in advance of the plane of the picture to be placed in said frame and the area of said sight smaller than the exposed area of said picture, the space between the plane of said sight and the plane of said picture being empty and unobstructed, whereby an illusion of heightened perspective or an added distance effect is given to said picture.

1,417,109. PHONOGRAPH DRIVE MECHANISM. HENRY K. SANDELL, Chicago, Ill., assignor to H. S. Mills, Chicago, Ill. Filed Apr. 11, 1921. Serial No. 460,229. 6 Claims. (Cl. 171—222.)



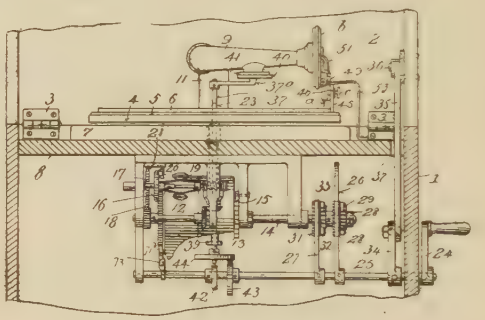
1. In a dynamo-electric drive for phonographs, a rotor secured to the phonograph table, said rotor comprising a magnetic ring, and a plurality of series connected windings at spaced angular intervals around the ring, a stator having a plurality of angularly spaced series connected pole windings and means for passing intermittent direct current impulses simultaneously through the stator and rotor windings, said means comprising a contact ring having a sine-wave contour, an oscillatable fork straddling the ring, said fork having on each side of the ring a contact member and a friction member spaced apart one-half of a wave of the ring, the contact member on each side facing the friction member on the other and being spaced therefrom somewhat more than the thickness of the ring whereby the contact members make contact with the ring simultaneously over one-half of each wave of the ring.

1,417,110. WINDOW HINGE. FREDERICK SCHLAIS, Brooklyn, N. Y. Filed July 13, 1921. Serial No. 484,311. 6 Claims. (Cl. 292—263.)



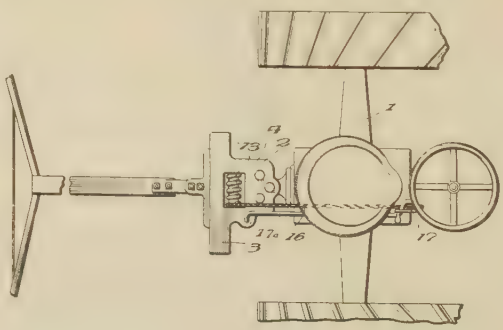
1. A hinge comprising an attaching plate, a rod secured to the sash of a window, a housing adapted to slide along said rod, and a folding part interposed between said housing and said attaching plate.

1,417,111. TALKING MACHINE. SIGMUND SCHLESINGER, New York, N. Y. Filed June 12, 1919. Serial No. 303,560. 19 Claims. (Cl. 274—14.)



1. A talking machine comprising a casing, a sound arm pivotally supported upon the casing for vertical and lateral movements, a rock shaft journalled in the casing and means co-operative between the shaft and sound arm for raising the arm and swinging it to one side when the shaft is operated in one direction and to swing the arm reversely and lower it when the shaft is operated in a reverse direction and means to manually rock the shaft in opposite directions.

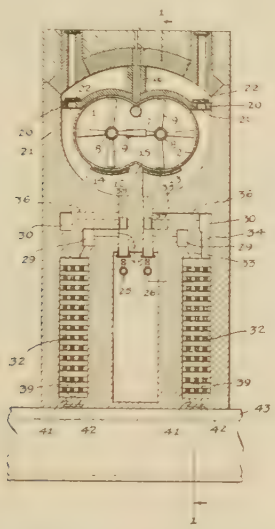
1,417,112. DRAFT APPLIANCE. ELI G. SHOCKEY, Sand Patch, Pa. Filed July 7, 1921. Serial No. 482,969. 3 Claims. (Cl. 213—67.)



1. In a draft appliance, a guide bar having a longitudinal slot therein providing shoulders, and a vertically ex-

tending opening with which a portion of the slot communicates, an elongated draft bar located in said slot and engaging said shoulders, teeth formed on one edge of the draft bar, and a worm in said opening for cooperating with said teeth.

1,417,113. FURNACE RETORT. CHARLES HOWARD SMITH, Short Hills, and EDWARD B. EDWARDS, East Orange, N. J., assignors to International Coal Products Corporation, Richmond, Va., a Corporation of Virginia. Filed June 10, 1919. Serial No. 303,222. 5 Claims. (Cl. 202—9.)

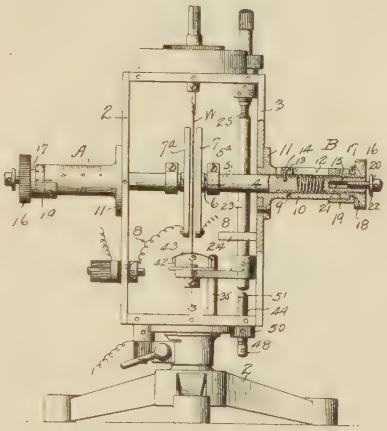


1. A furnace-retort construction having a longitudinally extending retort shell, combustion spaces exteriorly arranged along and on opposite sides of the longitudinally extending retort shell, each of which combustion spaces is located both below and at a side of the retort shell, burners for supplying fuel to the interior of the combustion spaces in a manner whereby alternate combustion spaces along each longitudinal half of the retort will receive fuel at a time when the other combustion spaces are serving as flues through which the products of combustion can pass on their way from the combustion spaces to which the fuel is being supplied, a longitudinally extending flue above the retorts itself and the combustion spaces at the side of the retort, each combustion space being in communication with the said longitudinally extending flue above it, main flues, a passageway extending between each of the combustion spaces and a main flue corresponding to the combustion space, and a regenerator, the construction being such that at one interval combustion is taking place in one half of the combustion spaces being supported by air flowing inwardly through one portion of the regenerator and so that at the same time the products of combustion are passing into and from the other half of the combustion spaces, thence inwardly through another portion of the regenerator, the construction also being such that these conditions can be successively reversed.

1,417,114. ELECTROMETER. FRED R. SOMMER, Brooklyn, N. Y. Filed June 15, 1920. Serial No. 389,109. 10 Claims. (Cl. 171—95.)

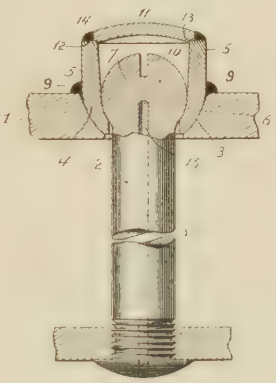
1. In an electrometer, the combination with the casing and the test wire, of a pair of pole plate units carried by the sides of the casing, each unit including a tubular support, a pole plate carrying shaft adjustable therein, means for accurately shifting the pole plate carrying shaft, and means for preventing the movement of the same beyond a predetermined inward limit.

8. In an electrometer, the combination with the casing and the test wire, of means for adjusting the tension of the test wire including a post arranged in a plane parallel to the test wire, and having a threaded end portion, a feel nut engaging with said threaded end portion of the post and having an externally threaded sleeve portion, lock nuts



carried by the sleeve portion of the feed nut to maintain the latter relatively fixed with respect to the casing, an off-set arm carried by the said post, and means carried by the off-set arm for engaging with the test wire.

1,417,115. STAY-BOLT STRUCTURE. BENJAMIN E. D. STAFFORD and ETHAN I. DODDS, Pittsburgh, Pa., assignors to Flannery Bolt Company, Pittsburgh, Pa. Filed Sept. 10, 1919. Serial No. 322,880. 3 Claims. (Cl. 85—1.5.)

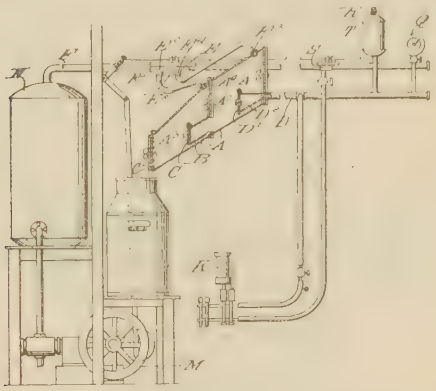


1. The combination with a boiler sheet having an opening, of a bearing member having initial universal mounting on the wall of said opening and permanently sealed to the boiler sheet, said bearing member permanently closed at its outer end, and a staybolt having a headed end mounted in said bearing member and having a tell-tale-hole extending from within said headed end to the other end of the bolt.

1,417,116. MILKING MACHINE. WILLIAM FREDERICK TURK and SIMON NIELSEN, Brisbane, Queensland, Australia. Filed Oct. 21, 1920. Serial No. 418,501. 7 Claims. (Cl. 31—101.)

1. In improvements in or relating to milking machines, a vessel having a receiver compartment and an ejector compartment, a milk pipe leading into said receiver, a valve on the end of said milk pipe, a valve on the outlet from said receiver to said ejector and a valve on the outlet from said ejector, and means for controlling the

alternate admission and withdrawal of air to and from said receiver and said ejector, alternately.



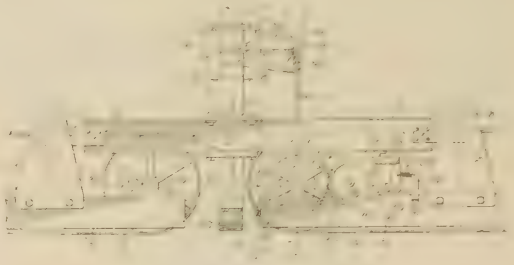
3. In improvements in or relating to milking machines, a pulsator having a port communicating with a vacuum pipe, a port which may be connected with a receiving compartment of a releaser, a port which may be connected with an ejector compartment of a releaser, a passage and port leading from said second mentioned port, means for controlling the passage of air through said passage and port, a slide in said pulsator adapted to close and open either of said ports.

5. In improvements in milking machines, a passage having a receiver compartment and an ejector compartment, a milk pipe leading into said receiver, a valve on the end of said milk pipe, a valve on the outlet from said receiver to said ejector, a valve on the outlet from said ejector, a pulsator having a port communicating with a vacuum pipe, a port communicating with said receiver compartment, a port communicating with said ejector compartment, a passage and port leading from said second mentioned port, means for controlling the passage of air through said passage and port, a slide in said pulsator adapted to close and open either of said ports, pipes for forming communication between said ports and said compartments, a teat cup, and a lining for said cup of uniform thickness having a number of indentations therein deeper and wider at the top and tapering to a point at the bottom.

6. In improvements in milking machines, a passage having a receiver compartment and an ejector compartment, a milk pipe leading into said receiver, a valve on the end of said milk pipe, a valve on the outlet from said receiver to said ejector, a valve on the outlet from said ejector, a pulsator having a port communicating with a vacuum pipe, a port communicating with said receiver compartment, a port communicating with said ejector compartment, a passage and port leading from said second mentioned port, means for controlling the passage of air through said passage and port, a slide in said pulsator adapted to close and open either of said ports, pipes for forming communication between said ports and said compartments, a teat cup and a lining for said cup of uniform thickness having a number of substantially semispherical indentations therein.

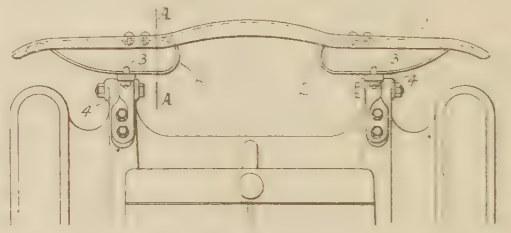
7. In improvements in or relating to milking machines, a vessel having a receiver compartment and an ejector compartment, a milk pipe leading into said receiver, a valve on the end of said milk pipe, a valve on the outlet from said receiver to said ejector, and a valve on the outlet from said ejector, a pulsator having a port communicating with a vacuum pipe, a port communicating with said receiver compartment, a port communicating with said ejector compartment, a passage and port leading from said second mentioned port, means for controlling the passage of air through said passage and port, a slide in said pulsator adapted to close and open either of said ports, and pipes for forming communication between said ports and said compartments, a teat cup, a lining or inflator for said teat cup having a number of indentations therein.

1,417,117. CUTTING MACHINE. ALVA W. TYLER, Chicago, Ill., assignor to The American Cement Plaster Company, Chicago, Ill., a Corporation of Kansas. Filed Nov. 15, 1919. Serial No. 338,190. 16 Claims. (Cl. 164—48.)



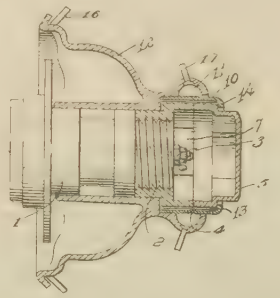
1. In a machine for cutting lengths from a continuously fed strip, a horizontally reciprocable frame, a cutter bar vertically movable in said frame, a member carried by said frame and co-acting with said cutter bar, a fluid actuating member carried by said cutter frame and connected with said cutter bar to move the same towards its co-acting member, means for reciprocating said frame at predetermined intervals, controlling means for said fluid member, and means operable in the forward movement of said frame for actuating said controlling means.

1,417,118. BUMPER FOR MOTOR VEHICLES. PER UTNE, South Orange, N. J. Filed Feb. 28, 1922. Serial No. 540,027. 2 Claims. (Cl. 293—55.)



1. A bumper comprising a bar; and a pair of springs, one end portion of each spring being bent in a half circle and secured at that end to the bar, and the other end pressing against the bar and having a sliding engagement therewith.

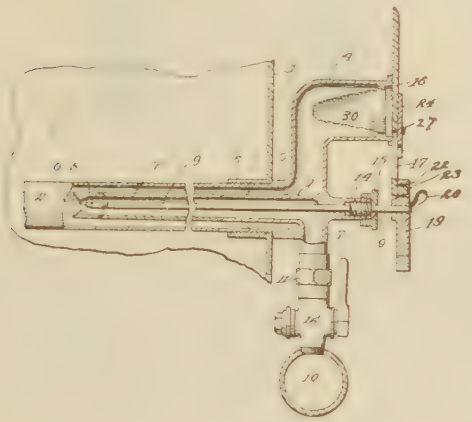
1,417,119. WHEEL HUB. MORTON VAN METER, Cadillac, Mich., assignor to Simplex Wire Wheel Company, Cadillac, Mich., a Corporation of Michigan. Filed July 7, 1920. Serial No. 394,431. 7 Claims. (Cl. 301—9.)



1. The combination of an inner hub member, an outer hub member, the inner hub member having terminal right hand screw threads, a two part cap therefor comprising an inner and an outer cap part revolubly mounted within

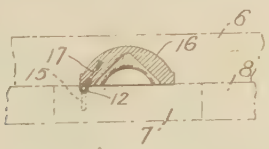
the outer hub member, the inner cap part having threads for engaging the threaded end of the inner hub member and being also provided with a pair of rectangular notches, a flat spring secured to the inner cap part adjacent each notch and extending therethrough, the outer cap part being provided with a pair of lugs adapted to engage in the said notches when assembled and a left-hand threaded retainer in threaded relation with the outer hub member having a series of serrations on the inner face thereof in which the spring ends engage, the retainer being also provided with a flange engaging over the outer cap member.

1,417,120. AIR VALVE FOR GAS BURNERS. EUGENE W. VEST, Mulberry Grove, Ill. Original application filed Dec. 13, 1919, Serial No. 344,566. Divided and this application filed July 30, 1920. Serial No. 400,148. 1 Claim. (Cl. 158—119.)



An air and gas valve for the burners of stoves, ranges and furnaces, comprising a Bunsen gas-burner casting, a gas-valve stem, an air-throat, an air-valve arranged to control the entrance of air to said air-throat, a cam on said gas-valve stem, a connecting means between said cam and said air-valve whereby both will move simultaneously when said stem is rocked or rotated, and an adjustable plate on said air-valve, for varying the size of the normal opening to said air-throat.

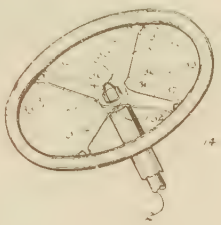
1,417,121. CIGAR-HOLDER CASE, PIPE CASE, OR SIMILAR RECEPTACLE. JOHN N. WHITEHOUSE, New York, N. Y. Filed May 6, 1920. Serial No. 379,252. 1 Claim. (Cl. 206—1.)



As a new article of manufacture, a receptacle and a cover therefor both composed of compressed baked wood-powder, cooperating hinge plates having their body portions arranged respectively within the walls of the receptacle and the cover with eyes of the plates projecting beyond the end surfaces of said walls, the walls of the receptacle and cover being first compressed and thereafter baked around the hinge members, and a connection between the eyes of the hinged plates.

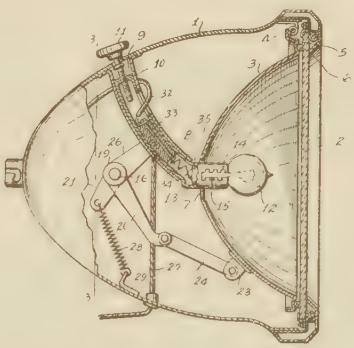
1,417,122. STEERING WHEEL. LEON E. WILLETT, Detroit, Mich. Filed Apr. 2, 1921. Serial No. 457,910. 3 Claims. (Cl. 74—33.)

1. In a hand wheel, the combination with a continuous annular rim, of a spider comprising a hub having an annular substantially radial surface and a neck projecting therefrom, a plurality of spokes adapted to be individually attached at their outer ends to the rim, and each having formed at its inner end an arcuate foot constituting a segment of an annulus corresponding to the annular surface of the hub and having a stud protruding transversely



thereof, the feet of said spokes being adapted to be nested together on the annular surface of said hub and about its neck and the hub having provided in its annular surface a socket for receiving the stud of each of the said spokes, and means for holding the spokes axially to the annular surface of said hub and securing the spokes and the hub together.

1,417,123. REFLECTOR LAMP. ARTHUR CHARLES WOOD, Mansfield, Ohio, assignor, by mesne assignments, to The Mansfield Lamp and Manufacturing Company. Filed Oct. 4, 1920. Serial No. 414,508. 8 Claims. (Cl. 240—44.)

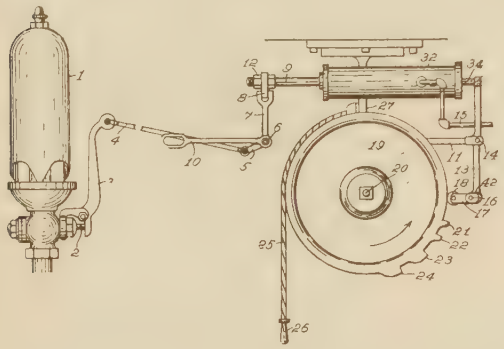


1. In a means for changing the direction of the projection of rays of light, a casing, a parabolic reflector hinged thereto, a curved bracket secured to said casing and means connected to said hinged reflector to actuate the reflector to travel in a path of the same curvature as the curved bracket and thereover.

1,417,124. SIGNAL-GOVERNING APPARATUS. ALBERTO I. WOODRING, Waterloo, Iowa, assignor to The A. I. Woodring Company, Waterloo, Iowa. Filed Dec. 8, 1921. Serial No. 520,918. 4 Claims. (Cl. 116—137.)

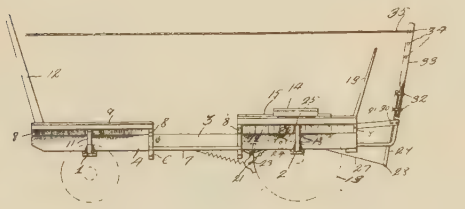
4. In combination, a signal, a manually-operable rock-body having tensioning means adapted to return the rock-body to initial position after operation and release, said rock-body having spaced circumferential projections of predetermined circumferential widths, the interspaces of said projections being of predetermined widths, a rock-lever mounted to have one end moved by said projections only while the reaction-device is reacting after release, a cylinder, a piston reciprocable therein having a rod projecting outwardly therefrom, operating connections between said piston-rod and said signal, said cylinder containing fluid-receiving and fluid-exhausting chambers, the former under constant communication with a source of fluid supply under pressure, valve-controlled ports in said chambers, valves controlling said ports operable by said piston-rod and by said lever alternately in setting and resetting, to

permit said source of fluid power to relay power impulses to said piston-rod and piston at each action of said lever, and tensioning-means operable on the valves to cause re



setting thereof, after actuation by said reaction rock-body projections of said lever and the release of the lever therefrom.

1,417,125. HAYRACK. CHARLES W. WORDEN, Dallas City, Ill. Filed June 22, 1920. Serial No. 390,785. 1 Claim. (Cl. 296—6)

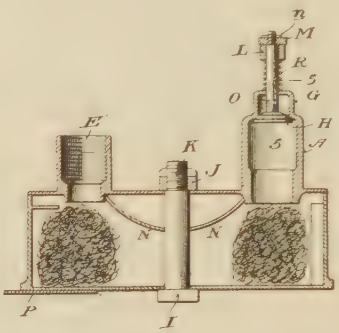


A hay rack comprising a pair of spaced converging sills adapted to rest upon bolsters of a wagon running gear, said sills having their lower edges connected together by a horizontally disposed bottom extending throughout the length and width of the space between the sills, a rectangular shaped frame surrounding the sills and having its longitudinal sides spaced from the sills, outwardly and upwardly extending platforms carried by the sills adjacent its ends and having their adjacent sides spaced from each other, horizontally disposed platforms extending outwardly from the lower edges of the sills substantially centrally thereof and apertures in the outwardly and upwardly inclined platforms for the reception of wagon stakes whereby lateral movement of the hay rack on the wagon bolsters will be prevented.

1,417,126. EXPANSION JOINT. JAY E. WUNDERLICK, Waterloo, Iowa, assignor of one-half to Charles N. Hostetler, Waterloo, Iowa. Filed May 17, 1920. Serial No. 381,935. 2 Claims. (Cl. 219—10.)

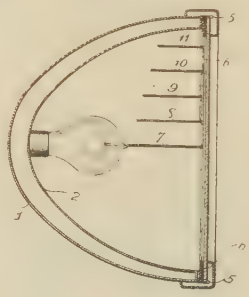
1. The method of forming an expansion joint between car-roofing plates and the like positioned to abut edge to edge in a single plane, wherein the abutted edges are upset in one direction in narrowly spaced relation, and an electrical welding device applied to both the upset edges to fuse said edges, bend the fused parts toward each other and weld them together into a closed arched joint.

1,417,127. APPARATUS FOR ADMITTING ADDITIONAL HEATED AIR INTO INTERNAL-COMBUSTION ENGINES. VICTOR YRURETA, Buenos Aires, Argentina. Filed Apr. 18, 1919. Serial No. 291,039. 1 Claim. (Cl. 123—122.)



An apparatus for supplying auxiliary heated air to internal combustion engines, comprising a metal receptacle adapted to be secured sufficiently close to the engine to be heated thereby; an upstanding valve casing on the top wall of the receptacle opening thereinto at its lower end and provided adjacent its upper end with an air inlet; a spring-controlled valve in said casing normally closing said inlet to prevent admission of air into the receptacle; an upstanding outlet member also on the top wall of the receptacle and opening therethrough; a connecting tube having one end engaged in said outlet member and the other end opening into the inlet pipe of the engine, whereby the engine suction exerted through said inlet pipe will open said valve and cause a current of atmospheric air to be drawn through said inlet successively into and through the valve casing, the receptacle and outlet member, the connecting tube and the inlet pipe and into the engine; and a mass of fine heat-conducting material disposed within the receptacle in the path of the air current and adapted to be heated by its contact with the walls of the receptacle and to heat said air current during the passage of the latter through the receptacle.

1,417,128. DEFLECTING DEVICE FOR AUTOMOBILE LAMPS. ALAN ANGELO, Atlantic City, N. J. Filed June 17, 1920. Serial No. 389,669. 1 Claim. (Cl. 240—48.4.)

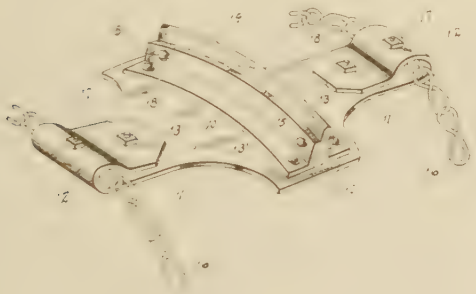


A deflector for automobiles comprising a curved frame member having integral lugs on its inner edge, deflecting members integral with said lugs and bent into horizontal planes and separate deflecting members secured to said frame member intermediate the integral deflectors.

1,417,129. CLOTH CLIP. RALPH W. ARMSTRONG, Westfield, N. J., assignor of two-thirds to Arthur Waterman, East Orange, N. J. Filed May 20, 1919. Serial No. 298,407. Renewed Oct. 19, 1921. Serial No. 508,833. 4 Claims. (Cl. 24—258.)

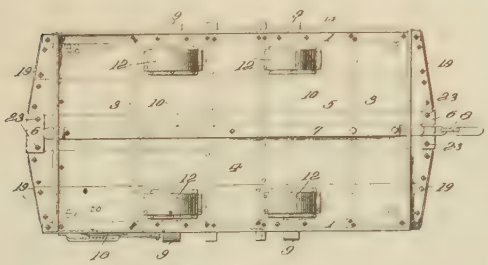
1. A clip comprising a U-shaped member having its two legs spaced apart to receive a pocket edge therebetween, U-shaped lugs extending inwardly from opposite sides of the lower end of one of the legs, and a lever received within and pivoted to said U-shaped lugs.

1,417,130. TRACTION DEVICE FOR NONSKID CHAINS. THEODORE C. AYERS, St. Clairsville, Ohio. Filed Oct. 4, 1920. Serial No. 414,542. 2 Claims. (Cl. 152—14.)



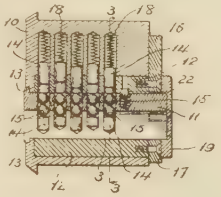
1. The combination with a non-skid chain having a pair of cross strands, of a body plate provided at its ends with means receiving the strands therethrough, means engaged through the first means and through said strands locking the plate against movement along the strands, and an upstanding calk carried by the plate.

1,417,131. MINE CAR. EMMETT L. BAILEY, Williamson, W. Va., assignor of one-half to Robert L. Bailey, Williamson, W. Va. Filed July 24, 1919. Serial No. 312,887. 3 Claims. (Cl. 105—364.)



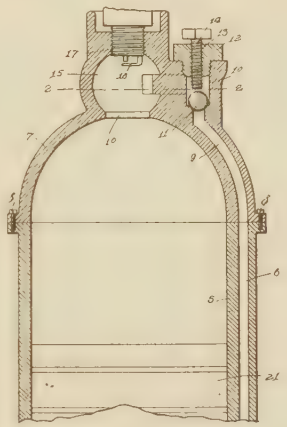
3. A mine car having a frame formed of angular members and a bottom formed of planking, said planking extending longitudinally of said car having a body mounted thereon formed of sheet metal, said planking extending outwardly beyond the ends of the body, wooden sills arranged at the ends of said car and a bumper arranged beyond said wooden sills formed of oppositely arranged angular members and a filler block secured together by a bolt extending through said planking, filler block and angular members.

1,417,132. PIN-TUMBLER LOCK. FRANK C. BARKER, St. Paul, Minn., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Filed Apr. 9, 1921. Serial No. 459,862. 9 Claims. (Cl. 70—47.)



3. In a pin tumbler lock, the combination of a cylinder, a sleeve mounted to rotate therein, a key plug mounted to rotate in the sleeve, a cam secured to the sleeve for actuating the associated lock mechanism, and a pin for locking the sleeve against rotation, the said pin being composed of sections one of which normally rests in the plug with its surface flush with the outer surface of the plug whereby the latter is normally free to rotate in the sleeve, the upper surface of the pin section in the plug being convex.

1,417,133. INTERNAL-COMBUSTION ENGINE. CARL E. BERG, Minneapolis, Minn. Filed Jan. 27, 1921. Serial No. 440,398. 1 Claim. (Cl. 123—191.)

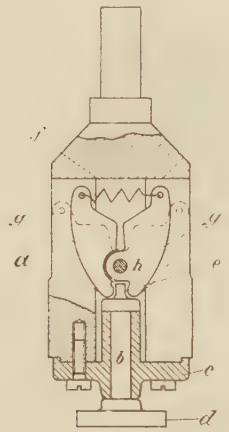


An internal combustion engine including a cylinder having a head formed with a spherical chamber, said cylinder having a passageway extending longitudinally thereof, said passageway terminating in a valve chamber, a ball valve seated in the valve chamber, means for regulating the ball valve to permit the same to open predetermined distances, a passageway for providing communication between the valve chamber and first mentioned chamber, and a spark plug having its firing points disposed within the first mentioned chamber.

1,417,134. MAGNETO-IGNITION APPARATUS FOR INTERNAL-COMBUSTION ENGINES. JACQUES BOHLI, Obach-Solothurn, Switzerland, assignor to the Firm Scintilla, Solothurn, Switzerland. Filed July 30, 1921. Serial No. 488,694. 3 Claims. (Cl. 123—149.)

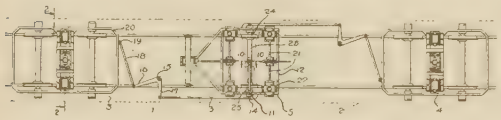
3. A magneto ignition device for internal combustion engines including a revolving magnet, a cam for determining the timing of the moment of ignition, an axial extension of said cam, a pair of weight members pivoted eccentrically and an elastic member connecting and restraining the motion of one pair of the ends of said

weight members, while the other pair of ends of said weight members are aadpted to coact with said cam extension to alter the relative angular position of said cam



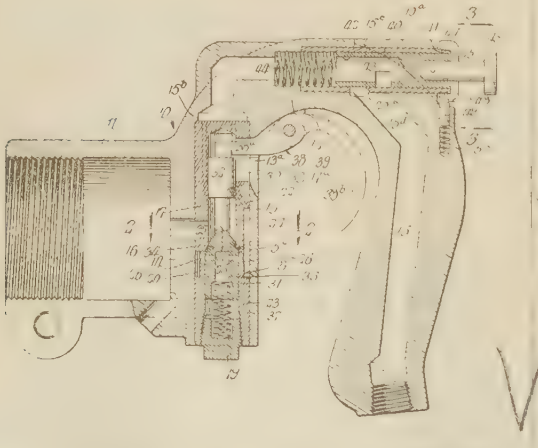
with regard to said revolving magnet, the said pair of weight members, said elastic member and said cam extension being located within the said revolving magnet.

1,417,135. CAR TRUCK. SAMUEL B. BRILHART, New York, N. Y. Filed Feb. 18, 1921. Serial No. 446,016. 13 Claims. (Cl. 105—4.)



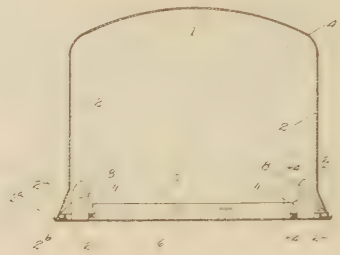
1. In a car truck a truck section frame, a car section arranged above the truck section frame, anti-friction rollers carried by the car section, a roller carried by the truck section frame for each of the rollers of the car section and a roller bar for carrying the rollers mounted on the truck section frame, said roller bar being mounted so that the rollers may move up and down.

1,417,136. AIR-INLET-VALVE MECHANISM FOR PNEUMATIC TOOLS. MATHEW J. BURKEL, Aurora, Ill. Filed July 10, 1918. Serial No. 244,159. 6 Claims. (Cl. 121—35.)



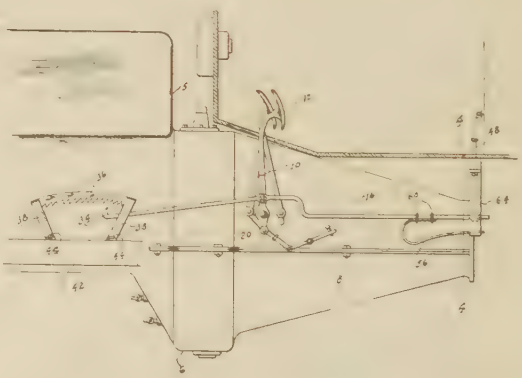
1. In combination with the handle of a pneumatic tool, an air inlet valve, a trigger on said handle for actuating said air inlet valve, a normally closed, combined adjustable throttle and safety valve for controlling the flow of air to said inlet valve, and a depressible stem for opening said throttle valve, said depressible stem being arranged at a right angle to the inlet valve and in convenient relation to said trigger and being adapted to be actuated by the thumb of the hand grasping the handle.

1,417,137. GRAVE VAULT. JACOB R. BURKHARDT, Springfield, Ohio, assignor to The Springfield Metallic Casket Company, Springfield, Ohio, a Corporation of Ohio. Filed Aug. 11, 1921. Serial No. 491,380. 6 Claims. (Cl. 27—35.)



2. In a structure of the character described, the combination with a vault having a separate bottom with a raised portion and marginal flange to receive the top portion of said vault, of a guide and spring latch located at each corner of said raised portion within the top portion of the vault to guide the top portion and lock it in position on said bottom, said latches being housed by said guides.

1,417,138. CLUTCH-PEDAL LOCK. RALPH R. BURKHART, Spokane, Wash., assignor of one-fourth to John E. Clark, Spokane, Wash. Filed Nov. 5, 1920. Serial No. 421,951. 5 Claims. (Cl. 74—81.)

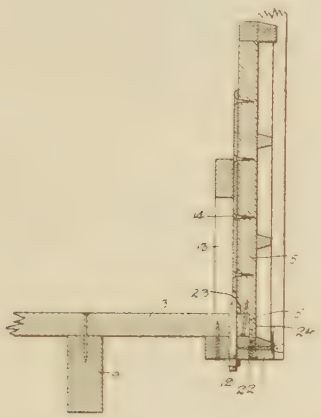


1. A lock for clutch pedals comprising a lever having means whereby it may be pivoted intermediate its ends upon the side of a clutch pedal, a locking member associated with the forward end of said lever, means acting on the rear end of the lever normally spacing the forward end thereof from said locking member, and a setting member slidably engaged with the rear end of the lever.

1,417,139. PROCESS OF RECOVERING SODIUM CARBONATE SULPHATE FROM SALINE WATERS. GEORGE B. BURNHAM, Borosolvay, Calif. Filed June 30, 1919. Serial No. 307,752. 5 Claims. (Cl. 23—22.)

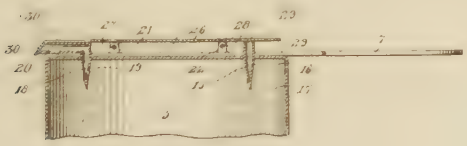
5. The process of producing sodium carbonate sulphate from Searles Lake brine, which consists in slowly evaporating the brine to produce saturation with sodium carbonate sulphate and continuing the slow evaporation to crystallize out sodium carbonate sulphate.

1,417,140. VEHICLE BODY. JOSEPH THEODORE CANTRELL, Huntington, N. Y., assignor to J. T. Cantrell & Company, Huntington, N. Y., a Copartnership. Filed Nov. 15, 1919. Serial No. 338,173. 1 Claim. (Cl. 286—1.)



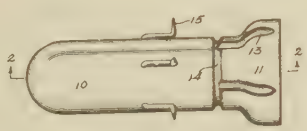
In a vehicle body, a bottom, a side board provided on its lower edge with a rabbet receiving the adjacent edge of the bottom and forming a downwardly facing shoulder which engages with the upper side of the bottom and a reduced tongue which projects downwardly beyond the lower side of said bottom, and a strip engaging with the underside of said bottom and provided on its upper side with a groove which receives the lower end of said tongue.

1,417,141. CAN CLOSURE. ROBERT EARL CARTER, Sykesville, Md. Filed May 11, 1921. Serial No. 468,575. 1 Claim. (Cl. 221—23.)



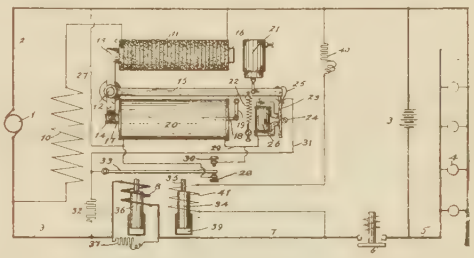
A device for forming vent and flow openings in a cam embodying a plate member with puncture forming and closing means and with integral oppositely extending side arms, one of said arms having a hook formed on the outer end thereof arranged to engage the margin of the can the other of said arms having a resilient catch thereon, guides on said other arm, and a radially movable hook member arranged to engage the margin of the can at the opposite side of the latter from that engaged by the first named hook, said movable hook member being slidably mounted in said guides and having transverse notches engagaged by said catch whereby said movable hook member is retained in radially adjusted positions.

1,417,142. SURGICAL INSTRUMENT. ALBERT B. COUCH, Marlin, Tex. Filed May 24, 1921. Serial No. 472,044. 3 Claims. (Cl. 128—303.)



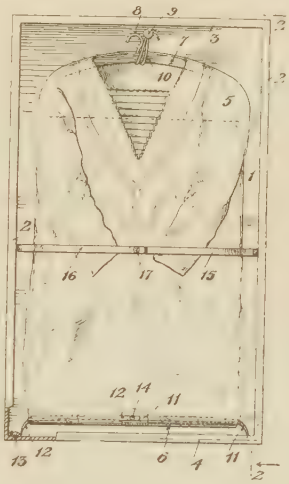
1. An instrument of the class described having a body adapted at one end to receive the organ to be operated upon, there being longitudinal needle grooves at said end at the exterior, as well as an annular groove from which said longitudinal grooves lead, and means on said body at the exterior beyond said grooves, with which the surplus portion to be removed may be engaged.

1,417,143. ELECTRIC REGULATION. JOHN L. CREVELING, White Plains, N. Y., assignor to Gould Coupler Company, a Corporation of New York. Filed Nov. 10, 1916, Serial No. 130,555. Renewed Sept. 17, 1921. Serial No. 501,425. 17 Claims. (Cl. 171—229.)



1. Means for regulating a generator comprehending a regulating element, means for operating said element normally tending to increase the output of the generator, means for stopping and permitting the operation thereof, and electromagnetic means governing the operating means.

1,417,144. BOX FOR GARMENTS. ROBERT F. CUTHBERT, New York, N. Y., assignor to Theo. Tiedemann & Sons, Inc., New York, N. Y., a Corporation of New York. Filed Jan. 26, 1921. Serial No. 439,907. 1 Claim. (Cl. 206—7.)

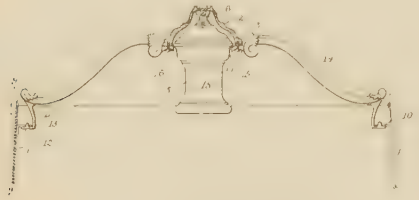


A device of the class described comprising a box for holding a garment, a garment hanger, a tape secured thereto, means for detachably securing said tape in the box, a pair of tapes secured to one end of the box, means for releasably uniting said tapes to form a continuous fastening tape lying within a fold in the garment, and a pair of tapes in the box intermediate of the hanger and the first-mentioned tapes and means for releasably uniting the last-mentioned tapes.

1,417,145. LIGHTING FIXTURE. THURE DAHL, New York, N. Y., assignor to Lightolier Company, a Corporation of New York. Filed Feb. 15, 1921. Serial No. 445,081. 7 Claims. (Cl. 240—115.)

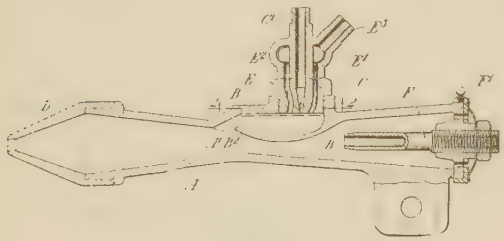
1. In a lighting fixture, in combination, a support, an open-top shade having a plurality of inwardly projecting

support elements, a substantially rigid symmetrical carrying structure for said shade including arms radiating outwardly from said support for a distance nearly equal to the radius of said shade, one arm corresponding to each



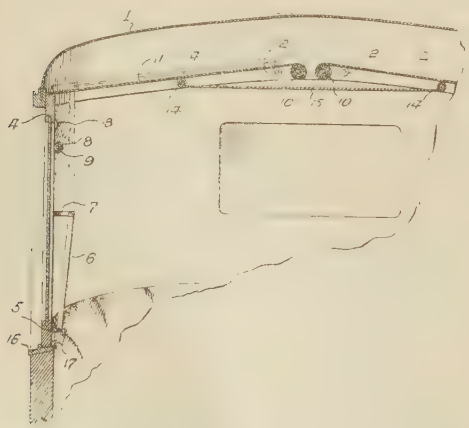
supporting element, said arms being constructed and arranged each to provide a rest for the corresponding support element and to obstruct said shade against rotation about its axis, whereby the shade is carried without positive clamping or securing means.

1,417,146. BURNER FOR FLUID FUEL. WILLIAM DEDERICH and SIGMUND WILLNER, London, England. Filed Apr. 22, 1920. Serial No. 375,875. 7 Claims. (Cl. 158—74.)



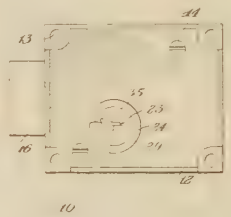
6. A burner for viscous fuels, comprising the combination of a burner-tube, a vaporizing-chamber that is situated in line with the bore of the tube, and has a constricted outlet opening into the tube, a conduit that traverses the vaporizing-chamber and extends through its outlet for supplying a hot fluid through the tube, a portion of the wall of said conduit in the vaporizing-chamber constituting an impact surface, and fuel-supply means for projecting a stream of heated fuel on to said impact surface.

1,417,147. WINDOW-SHIFTING MECHANISM. NARCISSE DES ROSIER, Detroit, Mich. Filed July 14, 1920. Serial No. 396,162. 1 Claim. (Cl. 296—45.)



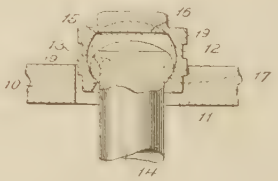
In a vehicle top having a side wall provided with a rigid shiftable sash, a support carried by the top side wall and attached to the lower end of said sash and adapted to cause the lower end thereof to swing outwardly when said sash is raised, flexible sash raising means in the upper part of the vehicle top attached to the upper edge of the sash and effective for raising the sash when the end of said sash is swung outwardly, and means including rolls carried by the top side wall and against which rolls the inner side of said sash bears and fulcrums during the raising action of the sash so that said sash is guided and caused to follow said flexible sash raising means and assume substantially a horizontal position in the automobile top.

1,417,148. LOCK. WILLIAM F. DIESEL, Rochester, and WILLIAM R. PRICE, New York, N. Y., assignors to Sargent and Greenleaf, Inc., Rochester, N. Y., a Corporation of New York. Filed Apr. 13, 1921. Serial No. 461,137. 8 Claims. (Cl. 70—46.)



3. A lock comprising a bolt, a plurality of tumblers, an element for moving the bolt under control of the tumblers having openings therein communicating with opposite sides of the lock, a part corresponding to certain of the tumblers adapted for insertion in an opening of said element on one side of the lock, and a key corresponding to others of the tumblers adapted for insertion in the opening of said element on the other side of the lock for moving said element and part, adjusting all of said tumblers and moving the bolt.

1,417,149. STAY-BOLT STRUCTURE. ETHAN I. DODDS, Central Valley, N. Y., assignor to Flannery Bolt Company, Pittsburgh, Pa. Filed Feb. 16, 1921. Serial No. 445,457. 5 Claims. (Cl. 85—1.5.)

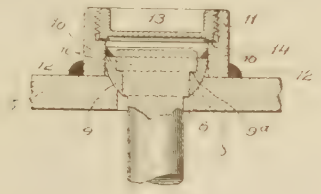


1. In a staybolt construction, the combination of an outer sheet of a boiler having a bolt opening therein, a bearing member of less diameter than the bolt opening, and a bolt permanently attached to the bolt bearing member, the bearing member being secured to the boiler sheet by welding.

1,417,150. STAY-BOLT CONSTRUCTION. ETHAN I. DODDS, Pittsburgh, Pa., assignor, to Flannery Bolt Company, Pittsburgh, Pa. Original application filed Jan. 22, 1921, Serial No. 439,153. Divided and this application filed June 2, 1921. Serial No. 474,375. 2 Claims. (Cl. 85—1.5.)

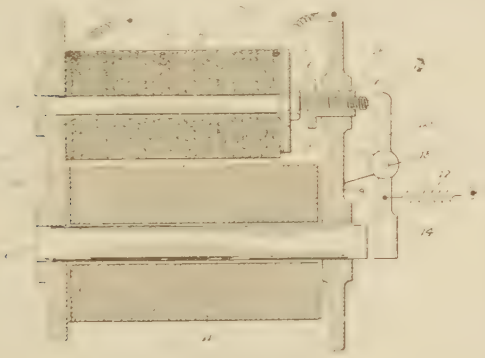
1. In a staybolt structure, the combination of a boiler sheet having a bolt opening the wall of which is concave to form a seat for a bolt bearing member, a convex bolt bearing member mounted in said seat and provided with

a seat for a bolt head, a bolt the head of which is supported by and mounted to move in said bearing member,



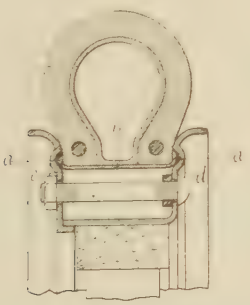
a sleeve welded to the boiler sheet around the bolt opening and a cap closing the outer end of said sleeve, the said bolt bearing member being welded to the sleeve.

1,417,151. COMPRESSIBLE-PILE REGULATOR. AUGUST W. DONOP, San Francisco, Calif., assignor to U. S. Light & Heat Corporation, Niagara Falls, N. Y., a Corporation of New York. Filed Mar. 26, 1919. Serial No. 285,383. 2 Claims. (Cl. 219—51.)



1. In a compressible pile, a plurality of plates and operating means for said pile having frictional engagement with each of said plates.

1,417,152. ROAD-VEHICLE WHEEL. WILLIAM DUKES, Coventry, England, assignor to The Warland Dual Rim Company, Limited, Coventry, Warwick, England. Filed Oct. 24, 1921. Serial No. 510,076. 1 Claim. (Cl. 301—23.)

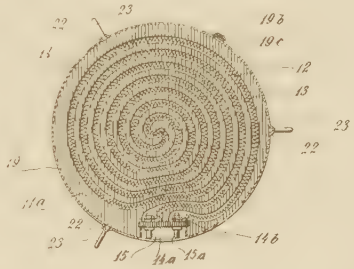


In a road vehicle wheel of the type specified the combination of a detachable rim for carrying a tire having flanges at its edges, the inner sides of the flanges being arranged at right angles to the peripheral surface of the rim and the outer sides being of convex form, coacting fixed and detachable flanges on the wheel and each having an inner groove to grip the outer curved surface of the flanges of the rim and outwardly flared circumferential portions and means for clamping the flanges on the wheel and about the rim, substantially as described.

1,417,153. PROCESS OF TREATING MANGANIFEROUS ORES OF THE PRECIOUS METALS. MATTHEW FRASER FAIRLIE and JAMES JOHN DENNY, Cobalt, Ontario, Canada. Filed July 7, 1921. Serial No. 483,069. 1 Claim. (Cl. 75—18.)

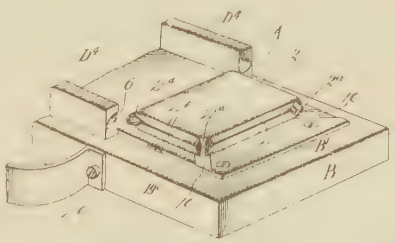
A process of treating gold or silver ores containing an oxide of manganese which consists in first treating the ore with metallic iron and sulphuric acid, separating the treated ore, and thereafter subjecting the ore to cyanidation.

1,417,154. ELECTRIC HEATING APPARATUS. THOMAS D. FINIZIO, Kitchawan, N. Y., assignor to Steatite Electric Products Corporation, a Corporation of New York. Filed July 15, 1920. Serial No. 396,469. 8 Claims. (Cl. 219—37.)



1. An electric heater comprising a pair of plates, a resistance element embedded in one of said plates and protected by the other thereof, and a member secured to one of said plates and engaging the other thereof to hold the same secured together, substantially as specified.

1,417,155. APPARATUS FOR APPLYING A COVER TO A CASING. CHARLES FISHER, Chicago, Ill., assignor to The Automatic Recording Safe Company, Chicago, Ill., a Corporation of Illinois. Filed May 5, 1921. Serial No. 467,080. 13 Claims. (Cl. 93—54.)



1. In means of the character set forth, the combination of a bed provided with means for positioning a cover and with a form-depression, means for clamping one wall of a casing and the folded margins of one portion of a cover to said bed, and an upper ironer provided with means for folding the margins of the other portion of the cover over the edges of the upper wall of said casing.

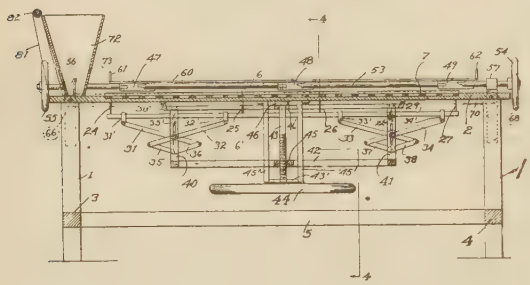
1,417,156. HEEL FOR WOMEN'S SHOES. ANTONIO A. FORTUNATO, Boston, Mass. Filed July 21, 1920. Serial No. 398,008. 1 Claim. (Cl. 36—41.)

In combination with a shoe, a metal plate secured to the shoe, a hollow metal heel slidably engaging the metal plate, the metal heel having inwardly extending apertured projections under the metal plate, the metal plate having apertures positioned to align with the apertures in the

aforesaid projections when the heel is engaged on the metal plate, said apertures being threaded, and screws

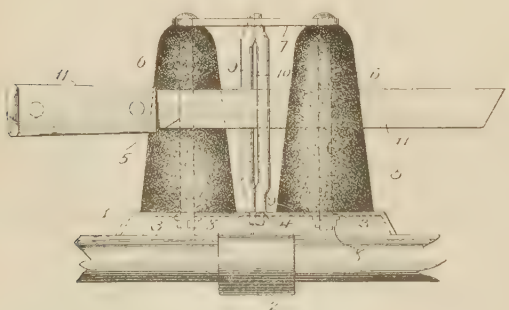
inserted through the interior of the shoe at the heel and securing the heel in rigid engagement with the metal plate, substantially as shown.

1,417,157. CAKE-FORMING MACHINE. JOSEPH FOUSEK, San Francisco, Calif. Filed Nov. 11, 1920. Serial No. 423,394. 4 Claims. (Cl. 107—29.)



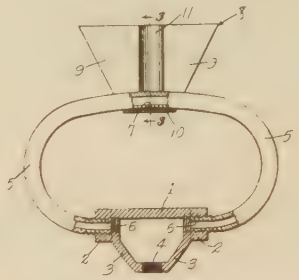
1. A machine of the character described comprising a table, a die plate thereon, an open bottomed hopper, means to move the hopper along the die plate and means to vertically raise the die plate after the hopper has been moved over the same in one direction.

1,417,158. SHARPENING DEVICE. WILLIAM HOWARD FRANKLAND, Jackson, Tenn. Filed Nov. 2, 1921. Serial No. 512,292. 4 Claims. (Cl. 51—214.)



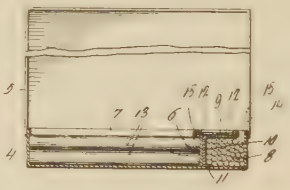
1. In a sharpener, the combination with a base and a cross-bar, of conical sharpening members disposed between the same and spaced apart, and a swiveled guide mounted between said sharpening cones.

1,417,159. OIL-GAS BURNER. LESTER C. FRASER, Los Angeles, Calif., assignor of one-half to Inez M. Walcott, Los Angeles, Calif. Filed Sept. 4, 1919. Serial No. 321,537. 2 Claims. (Cl. 158—66.)



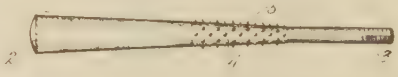
1. A burner comprising a hollow base and an arch assembled with the base, the crown of the arch having a combustion orifice; and a U-shaped guard straddling the crown of the arch at the combustion orifice, the guard including side wings between which the crown of the arch is insertible, the crown of the arch being gripped between the wings.

1,417,160. COMBINATION CIGARETTE AND MATCH CASE. WILLIAM H. FREDERICK, Cristobal, Canal Zone. Filed June 24, 1920. Serial No. 391,356. 2 Claims. (Cl. 206—38.)



2. In a receptacle, a partition forming a plurality of compartments, said partition consistsing of a pair of resilient plates disposed in close proximity to each other and secured by one edge to the receptacle, said strips having their opposite edge portions horizontally disposed in opposite directions to form a shelf to receive a striking surface and to provide a pair of jaws, the edges of said jaws being bent inwardly so as to retain the striking surface positioned upon said shelf portion.

1,417,161. KEY. GOTTLOB FUEGEL and HERMAN SCHMID, Brooklyn, N. Y., assignors, by mesne assignments, to Apollo Magneto Corporation, Brooklyn, N. Y., a Corporation of Delaware. Filed Aug. 30, 1919. Serial No. 320,915. 1 Claim. (Cl. 287—52.)

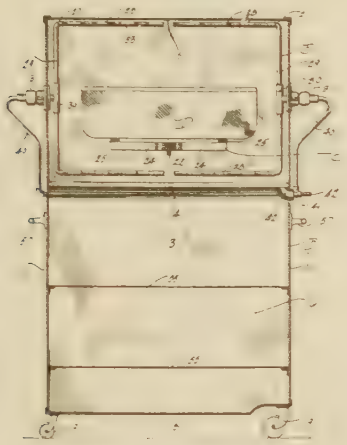


A key having one end shaped to be engaged by a tool and having threads at its opposite end, said key including a tapering portion between its ends, with projections substantially surrounding a part of said portion to provide a frictional surface to engage and hold a member in a desired position.

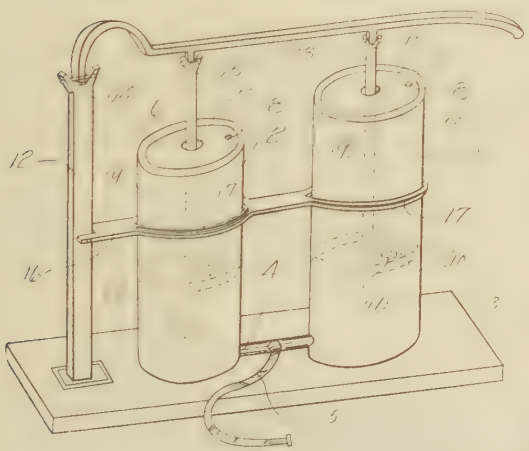
1,417,162. DISHWASHING MACHINE. JOHN EDWARD GAGEN, Pittsburgh, Pa. Filed Mar. 20, 1920. Serial No. 367,554. 12 Claims. (Cl. 141—9.)

2. A dish cleaning machine comprising an elongated housing, a support for dishes in the housing, a pair of

U-shaped hollow members rotatably supported by the opposite ends of the housing arranged to embrace the support, the hollow members having a plurality of outlet openings formed therein.

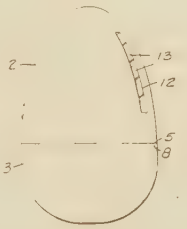


1,417,163. TIRE PUMP. RAY GARRETT, Burns City, Ind. Filed Feb. 12, 1921. Serial No. 444,375. 1 Claim. (Cl. 230—27.)



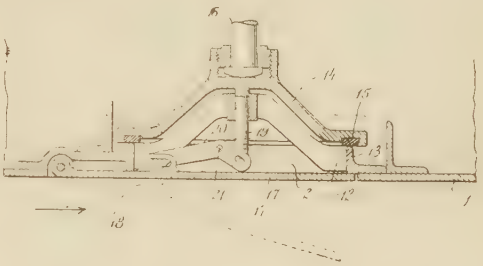
A two cylinder tire pump, comprising a base; a handle post extended vertically from the base; a relatively short pump cylinder on the base adjacent the handle post; a relative long pump cylinder on the base and aligned with the handle post and short cylinder; an air tube interiorly connecting the cylinders near their bases; valved pistons mounted in the cylinders; piston rods extended from the pistons slidingly out through the tops of the cylinders; and a handle pivotally connected to the ends of the handle post and piston rods.

1,417,164. SAVINGS BANK. JOHN H. GREER, San Francisco, Calif. Filed Jan. 12, 1921. Serial No. 436,674. 11 Claims. (Cl. 232—4.)



1. A savings bank consisting of a shell having separable sections with bayonet lug and slot interlocking means at their meeting edges, and a snap lock whose bolt enters one of the slots for securing the sections assembled.

1,417,165. VALVE MECHANISM FOR SUBMARINES. HUGO E. GRIESHABER, Groton, Conn., assignor to Electric Boat Company, a Corporation of New Jersey. Filed Nov. 10, 1920. Serial No. 423,024. 3 Claims. (Cl. 114—196.)



1. A valve mechanism for submarine vessels, comprising the combination of a frame including a valve seat, a valve adapted to be seated thereon, a scoop plate hinged to the frame and designed to close against it when the valve is closed, and means for simultaneously moving the valve inwardly to open it and swinging the scoop plate outwardly.

1,417,166. SECURING RIM FOR RECEPTACLE COVERS. ALBERT F. GUDKNECHT, Minneapolis, Minn. Filed June 10, 1920. Serial No. 387,827. 2 Claims. (Cl. 217—89.)

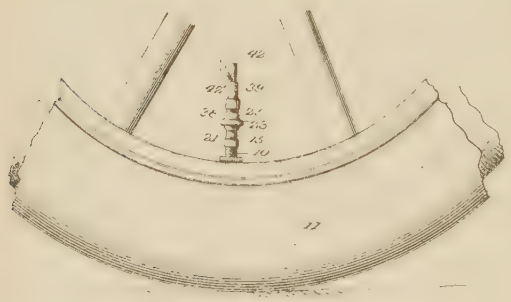
1. The combination with a receptacle, and a sectional overhanging removable cover therefor, of a securing rim

having an annular rim body surrounding the edge of the cover and provided at one edge with a top flange overhanging the cover and at its opposite edge with an offset extending beneath the cover whereby the rim will hold the sections of the cover assembled when the cover is removed from the receptacle, there being an annular skirt depending from said offset concentric to the rim body but of less diameter to snugly surround the receptacle beneath the cover.

1,417,167. COMPLEX SILVER SALTS OF α-AMINO ACIDS. MARKUS GUGGENHEIM, Basel, Switzerland, assignor to The Hoffmann-La Roche Chemical Works, New York, N. Y., a Corporation of New York. Filed Sept. 30, 1919. Serial No. 327,557. 6 Claims. (Cl. 260—11.)

1. As new products, the complex silver salts of α-amino acids which can be obtained by treating non-complex silver compounds with a quantity of α-amino acid whose weight is not less than at least five times the weight of such compounds (calculated as silver oxide actually or potentially present therein) which would be needed to form the corresponding normal salts, which complex salts have the following characteristics: they are much more easily soluble than the normal silver salts of α-amino acids; their solutions are more stable than those of the normal silver salts of α-amino acids; they do not precipitate albumin, and have no irritating effect upon the mucous membrane.

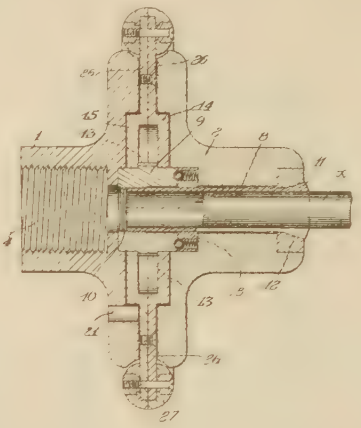
1,417,168. LOW-PRESSURE ALARM FOR PNEUMATIC TIRES. WILLIAM A. HARRIS, Greenville, S. C., assignor to Harris Accessory Company, Greenville, S. C., a Corporation of South Carolina. Filed Mar. 5, 1921, Serial No. 449,851. Renewed Apr. 10, 1922. Serial No. 551,209. 5 Claims. (Cl. 116—34.)



1. In a low pressure alarm, a casing, a spring actuated pressure controlled stem having an air conduit, means for adjusting the actuating spring of the said stem, including a cap threaded on the casing and adjustable with respect thereto, a pressure actuated whistle tube slidably interfitting and normally housed in the cap and shiftable to exposed position when the signal is sounded, means carried by said tube and engaging the cap to prevent accidental displacement of the tube in the housed and exposed positions, and spaced closure members against which the opposite ends of the said stem are shiftable to closed positions and between which the stem forms a conduit for the passage of pressure to the signal member.

1,417,169. CHUCK FOR LATHES AND THE LIKE. JOHN W. HEIGH, Rochester, N. Y. Filed Dec. 16, 1920. Serial No. 431,187. 7 Claims. (Cl. 279—53.)

1. A chuck comprising a collet, a rotary actuating member cooperating with the collet, and operating means controlling said actuating member and including an oscillatory hand wheel surrounding the chuck and having an

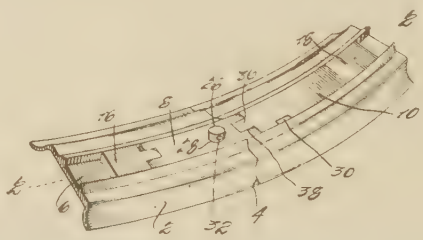


alternating grip and release engagement with said actuating member.

1,417,170. SHOE CONSTRUCTION. EDWARD EVERETT HOSMER, New York, N. Y. Filed Nov. 11, 1920. Serial No. 423,427. 6 Claims. (Cl. 36—1.)

1. In a shoe construction, a shoe having the interior surface of the bottom thereof formed in such a manner that the bearing surface for the heel is disposed substantially below the bearing surface for the ball of the foot whereby the heel shall sustain the entire weight of the body of the wearer.

1,417,171. SPLIT-RIM ATTACHMENT. ELDRIDGE R. HUNNEWELL, New York, N. Y. Filed Feb. 7, 1918. Serial No. 215,808. 4 Claims. (Cl. 301—33.)



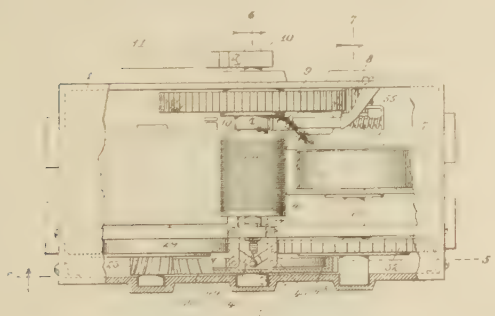
1. The combination with a one piece split rim normally under a tension tending to move it to contracted condition when broken at its joint and having ends shaped to be held by said tension in abutting relation when the rim is in normal condition, of means for moving said ends into abutting relation when the rim is broken, comprising a toggle, thrust bearings for the ends of said toggle upon opposite sides of the rim joint spaced on said rim

to spread said joint when said toggle is straightened, said toggle being shaped to lie against the inner face of said rim when said rim is in normal condition, and being of such length that it is disengaged from at least one of its thrust bearings when in this position.

1,417,172. SLED. HUGH HYNDMAN, Palmerston, Ontario, Canada. Filed Apr. 26, 1921. Serial No. 464,686. 1 Claim. (Cl. 280—22.)

A sled comprising normally straight flexible runners; knees secured thereto; main cross bars connected to the knees; side bars secured to the cross bar and extending forward to the forward ends of the runners; a cross bar secured to the forward ends of the side bars; a center plank secured to the main cross bars and the cross bar connecting the forward end of the side bars; a cross bar connecting the forward ends of the runners; a goose neck arm pivotally connected with the cross bar connecting the forward ends of the runners, passing over the cross bar connecting the forward end of the cross bars and pivoted to the center plank behind said cross bar; and a steering lever secured to the goose neck arm.

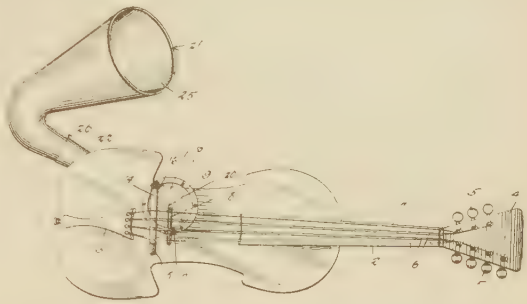
1,417,173. ELECTRICAL DOOR-OPERATING DEVICE. JACOB R. KAISERMAN, Livingston, Mont. Filed June 22, 1920. Serial No. 390,788. 6 Claims. (Cl. 268—9.)



1. The combination with a door of a shaft operatively connected with the door for moving the same, a motor, power transmitting means between the motor and said shaft, a spring connected with the said shaft and adapted to wind during the opening of the door by the said motor, a one-way acting clutch mechanism between the spring and said means for permitting the door to be operated independently of the motor, and an automatic device operatively connected with said means to limit the speed with which the door is moved by the motor and by the spring.

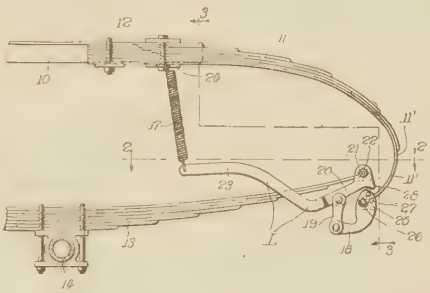
1,417,174. MUSICAL INSTRUMENT. JOHN KALAF, Jr., Meta, Mo. Filed Apr. 15, 1921. Serial No. 461,463. 3 Claims. (Cl. 84—296.)

1. An instrument of the string type comprising a body; a sound amplifier on the body, said amplifier comprising a diaphragm and a casing; a main bridge having its ends resting, respectively, on the body, and on the casing of the amplifier independently of the diaphragm; an oscillatory



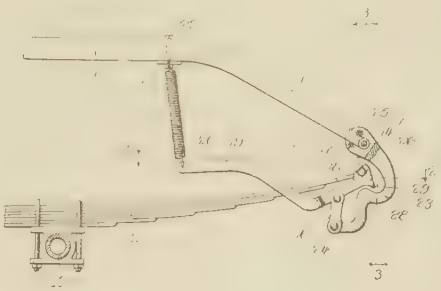
bridge engaging the diaphragm; and a string extended across the bridges.

1,417,175. SHOCK ABSORBER. JAMES M. KERR, Crawfordsville, Ind. Filed July 14, 1921. Serial No. 484,641. 7 Claims. (Cl. 267—17.)



1. In a vehicle, the combination of an upper vehicle spring secured to the vehicle body and extending outwardly and downwardly therefrom, a lower vehicle spring secured to the vehicle axle and terminating above the end of said upper spring, a lever fulcrumed on the end of said axle spring and extending toward said axle, a shock absorbing spring connecting between the inner end of said lever and the vehicle body, an abutment on said lever outside of its fulcrum point, an abutment on the end of the upper spring normally inside of the said lever abutment, a link connecting between said upper spring abutment and the lever at a point inside of the lever fulcrum, said link connection causing rocking of said lever when said springs approach each other, and said abutments engaging with each other to rock the lever when the springs move away from each other.

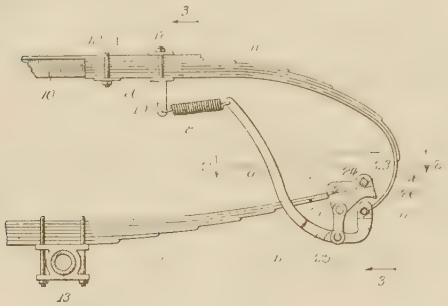
1,417,176. SHOCK ABSORBER. JAMES M. KERR, Crawfordsville, Ind. Filed July 14, 1921. Serial No. 484,642. 6 Claims. (Cl. 267—17.)



1. In a vehicle, the combination of the vehicle axle, a spring secured thereto, the vehicle frame above the spring

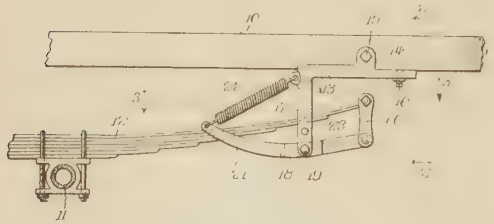
having an extension deflecting downwardly and terminating above the end of the spring, a lever fulcrumed at its outer end directly on the end of the vehicle spring and extending inwardly, an elastic connection between the inner end of said lever and the vehicle frame, a fitting secured to the end of the frame extension and extending downwardly and terminating below said lever near its fulcrum point, and a link connecting between the inner end of said extension and said lever.

1,417,177. SHOCK ABSORBER. JAMES M. KERR, Crawfordsville, Ind. Filed July 14, 1921. Serial No. 484,643. 5 Claims. (Cl. 267—17.)



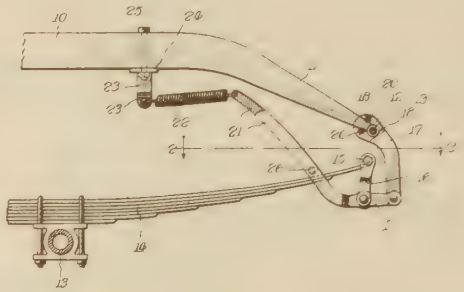
1. In a vehicle, the combination with the axle, a leaf spring secured to the axle at right angles thereto and extending outwardly therefrom, a block secured to the front end of said spring, the vehicle body structure, a leaf spring secured to said structure at its butt end and extending outwardly and terminating below said block, a lever fulcrumed at its outer end on the end of said body structure spring, said lever extending inwardly and then upwardly past and above the axle spring, a link pivoted on said block at the inner end thereof and pivoted to said lever a distance inwardly of the lever fulcrum point, an elastic connection between the upper end of said lever and the body structure, said elastic connection resisting swing of said lever during normal operation of said vehicle, said block forming an abutment for the fulcrumed end of said lever when said vehicle springs separate abnormally whereby the vehicle springs may resist and retard the recoil or rebound action.

1,417,178. SHOCK ABSORBER. JAMES M. KERR, Crawfordsville, Ind. Filed July 14, 1921. Serial No. 484,644. 2 Claims. (Cl. 267—17.)



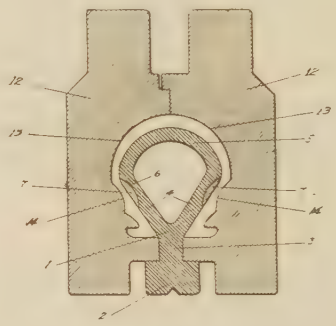
1. In a vehicle, the combination of the vehicle framework, the axle, a leaf spring secured on said axle at right angles thereto, an arm extending downwardly from said framework below said vehicle spring and a short distance inwardly of the spring end, a lever pivoted intermediate its ends on the lower end of said arm, a connection between the outer end of said lever and the spring end, a shock absorbing spring connecting between the inner end of said lever and the vehicle framework, and an abutment on said arm below said vehicle spring for engaging with said spring to cause said spring to snub recoil of the vehicle frame.

1,417,179. SHOCK ABSORBER. JAMES M. KERR, Crawfordsville, Ind. Filed July 14, 1921. Serial No. 484,645. 1 Claim. (Cl. 267—17.)



In a vehicle, the combination with the vehicle axle, a leaf spring secured on said axle at right angles thereto, a shackle member suspended from the outer end of said spring, the vehicle framework, said framework having a bolt hole originally used for securing said shackle member, a fitting secured to the framework by a bolt passing through said bolt hole, said fitting extending downwardly below and outside of the vehicle spring end, a lever fulcrumed at its outer end at the lower end of said fitting, said shackle member being pivoted to said lever, the inner end of said lever extending diagonally inwardly and upwardly past the vehicle spring, shock absorber springs connected at one end with the inner end of the lever and connected at the other end with the vehicle framework, and an abutment pin on said lever inside of the pivot connection of said shackle with the lever and above said vehicle spring for preventing reverse rotation of said lever during abnormal separation of said spring and framework.

1,417,180. METHOD AND APPARATUS FOR MANUFACTURING TIRES. WALTER KLINE, Chillicothe, Ohio, assignor to The Kline Engineering Company, Chillicothe, Ohio, a Corporation of Ohio. Filed Jan. 10, 1922. Serial No. 528,188. 12 Claims. (Cl. 18—38.)

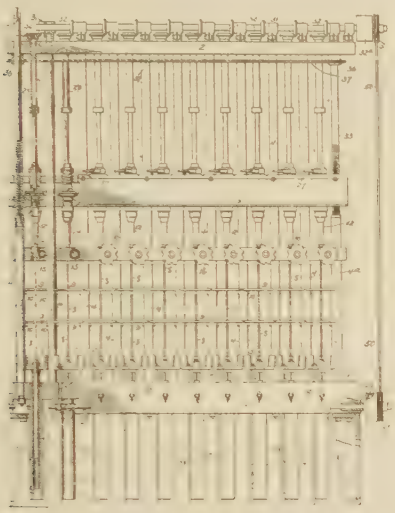


1. The method of forming tires, which consists in forming the tire casing about a core, removing a part of this core and pressing a portion of the tire into the cavity formed by the removed part of the core.

1,417,181. METAL-DRILLING MACHINE. FREDERICK K. LANDGRAF, Pittsburgh, Pa., assignor to Flannery Bolt Company, Pittsburgh, Pa. Filed Mar. 15, 1919. Serial No. 282,867. 14 Claims. (Cl. 77—32.)

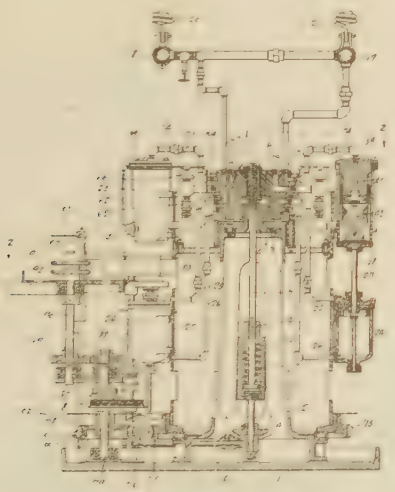
1. In a drilling machine, the combination with rotating means, and longitudinally movable constant fluid pressure feeding means, one of said means constituting a work receiver and the other of said means constituting a tool car-

rier, and constant fluid pressure means for feeding one of said means relatively to the other, of means geared to



said constant fluid pressure feeding means and operating to limit the speed to a predetermined rate regardless of varying resistance offered by varying texture of the work.

1,417,182. STERILIZING APPARATUS. FRANCIS H. LANDRUM and ALBERT N. CRAMER, Columbus, Ohio, assignors to The Wedoit Company, Columbus, Ohio. Filed Feb. 21, 1917. Serial No. 149,990. 31 Claims. (Cl. 99—2.)



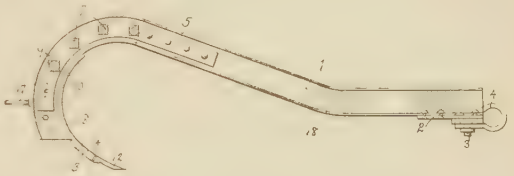
5. Sterilizing apparatus comprising a treating chamber to inclose the vessel containing the material to be treated, means within such treating chamber to engage the open end of the vessel, means for introducing a sterilizing agent into and around the vessel, and means to maintain a draft of the sterilizing agent from the interior of the vessel toward its exterior.

11. Sterilizing apparatus comprising a main supply valve and its casing, a treating chamber connected with said casing by a conductor, means for introducing a sterilizing agent into said treating chamber, and means for permitting the escape of said treating agent from the treating chamber, said conductor provided with means for preventing leakage of pressure from the ports of the main central valve passing through said conductor to the treating chamber after the initiation of said exhaust.

20. Sterilizing apparatus comprising a plurality of vessel supporting plates rotating about its center, feeding means rotating about positioned centers for feeding the vessels to and from the vessel supporting plates, a plate positioned beneath said feeding means to support the vessels, said plate elevated above said vessel supporting plates on the inlet and depressed below the top surface of said vessel supporting plates on the outlet to insure passage of said vessels.

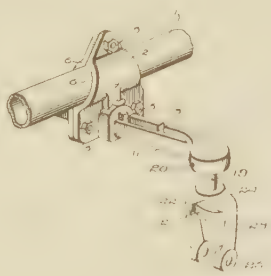
31. Sterilizing apparatus comprising a treating chamber, and means for introducing a sterilizing agent into said treating chamber, means for maintaining said treating agent under pressure in said treating chamber, and non-downwardly directed means for permitting a continual flow of treating agent from said treating chamber through a relatively minute opening.

1,417,183. SCRAPER. CHARLES L. LAWTON, Hancock, Mich. Filed Mar. 8, 1921. Serial No. 450,783. 6 Claims. (Cl. 37—40.)



1. In a scraper, the combination of two side bars connected at their front ends and connector bars attached to their rear ends, the portions of the connector bars extending beyond the rear ends of the side bars being circular, and a substantially cylindrical apron adjustably attached to the connector bars and embodying circular flanges adapted to fit against said circular rear ends, said flanges and side bars having registering holes, and bolts adapted to secure the flanges on the apron to the side bars in a plurality of positions.

1,417,184. STANCHION SUPPORT. JOHN MINOR BOTTS LEWIS, Lynchburg, Va. Filed May 20, 1920. Serial No. 382,966. 3 Claims. (Cl. 119—27.)

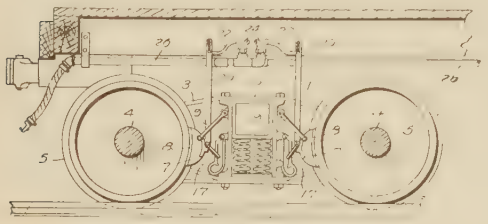


1. In a stanchion support, the combination with a horizontal stall rail, of complementary members adapted to be secured thereto and provided with registering openings, a supporting bar arranged in said openings, a rib formed on one face of the supporting bar, said rib being provided with transverse grooves, a locking pin adapted to be received in one of said grooves and means for securing the stanchion to the supporting bar.

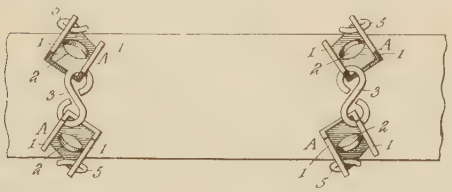
1,417,185. EMERGENCY STRUCTURE FOR RAILWAY CARS. HORACE W. LINDSEY, Atlanta, Ga. Filed Nov. 19, 1919. Serial No. 339,096. 7 Claims. (Cl. 246—169.)

1. An emergency structure for railway-cars including in combination a brake-beam, hangers therefor, a truck-bolster to which the hangers are connected, an auxiliary

beam-support associated with said hangers and comprising an angular member, a connecting-element between the support and the beam and slidable on the support, first in a vertical direction and then in an approximately horizontal direction, the member being formed with an enlargement into which the element is disposed by the abnormal movement of the brake-beam, and an associated air-brake syste moperable by movement of the connecting-element.

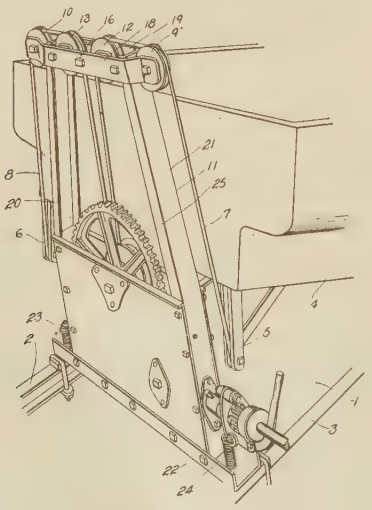


1,417,186. NONSKID-TIRE GRIP. NILS J. LINDSTROM, Evansville, Minn. Filed Aug. 12, 1919. Serial No. 316,951. 5 Claims. (Cl. 152—14.)



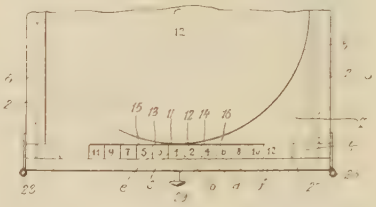
1. A non-skid tire grip including a channel-iron lug having a diagonal end, whereby one of the flanges is of greater length than the other, side chains, and means extending from the side chains to the opposite corners of the lug.

1,417,187. EQUALIZING HOIST. WINFIELD S. LIVENGOOD, Kansas City, Mo., assignor to Andrew A. Kramer, Kansas City, Mo. Filed Dec. 8, 1920. Serial No. 429,266. 4 Claims. (Cl. 298—19.)



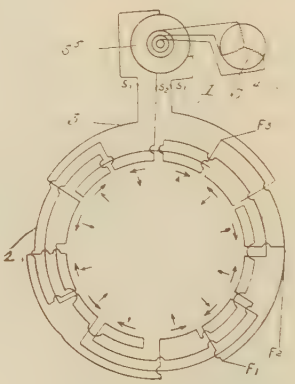
1. A hoisting mechanism comprising a vertical frame having sheaves at its upper end, a winding drum carried by the frame, cables connected to the winding drum and passing over the sheaves in opposite directions, and an equalizer carried by the frame between the sheaves and consisting of pivoted bars and sheaves mounted between them.

1,417,188. PHONOGRAPH-RECORD CABINET. OSWALD LORENZ, New York, N. Y. Filed Mar. 21, 1921. Serial No. 453,939. 3 Claims. (Cl. 211—16.)



1. In a phonograph record cabinet, a box-like record container, a series of vertically spaced shelves slidably supported in the side walls of said container, said shelves having notches formed in their front edges, said notches being of progressively increasing length from the lower to the higher shelves to expose portion of the shelves thereunder and being arranged to expose the said portions of alternate shelves at opposite ends of the said notches.

1,417,189. CONCENTRATOR. JOSEPH BARTHOLEMEW MCCARTHY, Copper Cliff, Ontario, Canada. Filed Jan. 12, 1920. Serial No. 351,049. 5 Claims. (Cl. 83—71.)

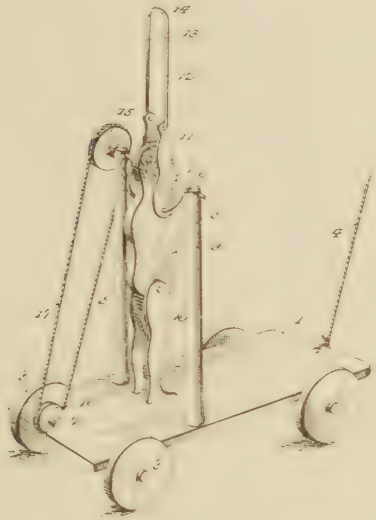


1. In a concentrator, means for producing a continuous magnetic field moving in a definite path, and inducing or tending to induce electric currents in the matter being concentrated which will react against the field and set the constituents of the matter in motion and cause the metallic particles to rotate about their own axes and gradually separate themselves from the other constituents.

1,417,190. WHEELED TOY. GILBERT A. MCCREARY, Edinburg, Pa. Filed Aug. 17, 1920. Serial No. 404,058. 2 Claims. (Cl. 46—45.)

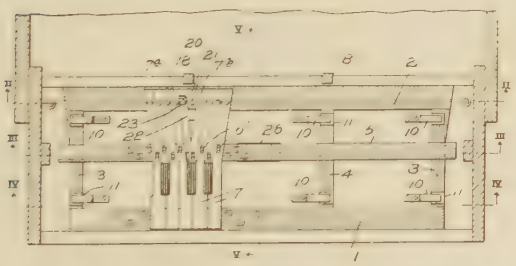
2. A toy having a base with a pair of spaced uprights and wheels supporting the base for travel, a shaft with a central crank and having driving connection with said wheels and being carried on the free end of said uprights, a figure with jointed legs freely suspended from said

crank, a pair of arms for said figure rigidly secured upon said crank and extending in diametrically opposite direc-



tion of the crank, and a loop connecting said arms and forming continuations thereof in the length direction.

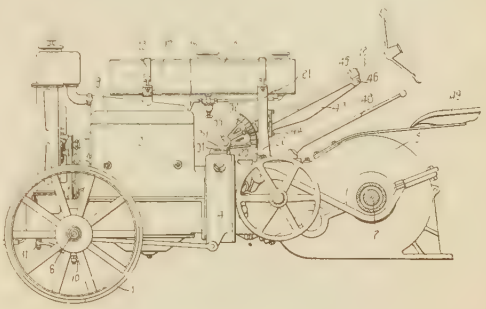
1,417,191. PIANO. CHARLES N. MANGOLD, Pittsburgh, Pa. Filed June 30, 1921. Serial No. 481,447. 4 Claims. (Cl. 84—447.)



3. In a transposing upright piano, a laterally movable keyboard provided with keys the rear ends of some of which diverge from each other, a fixed action including upright action rods, a frame supporting said rods, upwardly extending brackets back of the keyboard, the rear ends of adjacent pairs of diverging keys being provided with laterally extending blocks, having action-striking pins arranged to bring all keys into action in all positions of the keyboard.

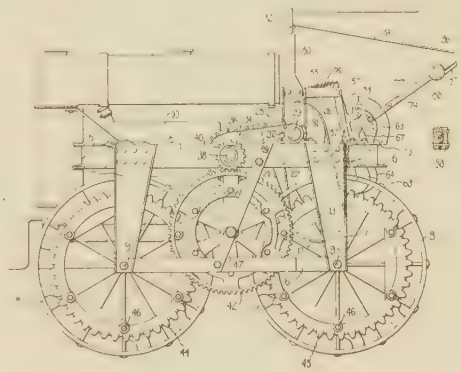
1,417,192. STEERING-GEAR AND FUEL-TANK SUPPORT. ARTHUR C. MASON, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a Corporation of Delaware. Filed Mar. 22, 1920. Serial No. 367,934. 4 Claims. (Cl. 180—54.)

1. In a self propelled vehicle having a frame including an engine casing the rear end of which forms a clutch housing, said frame also including a transmission casing fixed to said clutch housing, a fixture mounted on said clutch housing, a rock shaft supported by the fixture, said rock shaft forming part of a steering gear for the vehicle, a rearwardly inclined steering shaft having its lower end carried by said fixture, a supporting bracket separate from the fixture and mounted on the transmission casing, and having a rearwardly extending upwardly inclined arm intermediate its ends and the upper end of which arm



serves as a support for the upper end of said steering shaft, and means for turning the rock shaft, from the steering shaft.

1,417,193. TRACTOR. JOHN M. MEYERS, Janesville, Wis., assignor to General Motors Corporation, Detroit, Mich., a Corporation of Delaware. Filed Nov. 26, 1919. Serial No. 340,715. 9 Claims. (Cl. 180—1.)

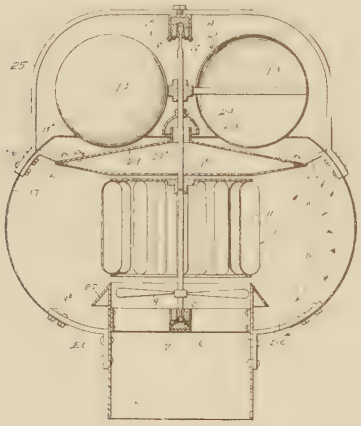


1. In a tractor, two driving wheels located on opposite sides thereof, a cross frame extending across the tractor from side to side and forming in its lower surface a pair of unobstructed channels extending longitudinally of the tractor and up substantially to the level of the tops of the wheels, an engine suspended by the cross frame and having its crank shaft located well below the tops of the wheels, and means for driving the wheels from the engine.

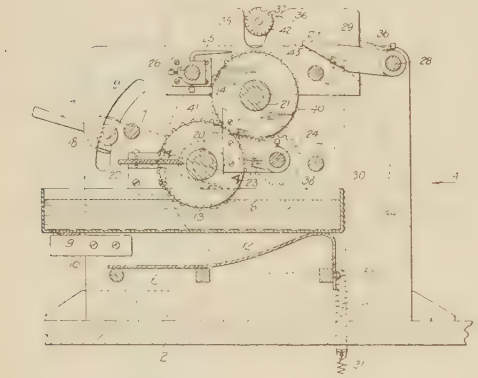
1,417,194. VENTILATOR. WORTHIE W. MOREY, Columbus, Ohio. Filed Aug. 27, 1920. Serial No. 406,341. 4 Claims. (Cl. 98—2.)

4. A device of the character described comprising a stem, a bearing supported therefrom, a spindle mounted to turn upon said bearing, a centrifugal fan carried by the spindle, a storm band surrounding the fan and supported from the stem with its lower edge spaced from the stem, a hood supported from the storm band with its outer edge spaced from the storm band, said storm band

having its upper and lower edges inwardly directed and presents at all points in its circumference a concave continuously curved wall the upper edges of which lies above the hood and the lower edge of which lies below the top of the stem.



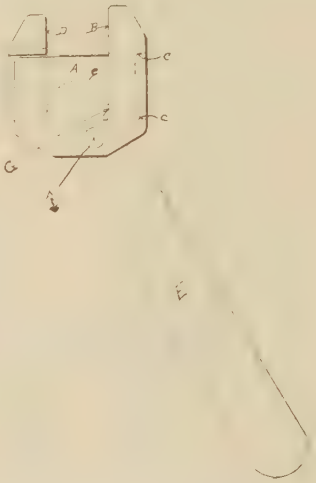
1,417,195. MACHINE FOR GLUING BOX SHOULDERS. ALFRED J. MORRISON, Denver, Colo., assignor of one-half to William E. Warneke, Denver, Colo. Filed Nov. 14, 1919. Serial No. 338,050. 12 Claims. (Cl. 91—50.)



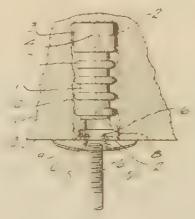
9. In a machine of the character described, the combination of a coating roller, means cooperating with said roller for the support of a box shoulder in contact with the peripheral face thereof, and an element adapted to engage with an upstanding member of the box shoulder adjacent the point of contact of an adjoining member of the same with the roller.

1,417,196. WRENCH. VICTOR L. OCHOA, El Paso, Tex. Filed May 17, 1921. Serial No. 470,453. 4 Claims. (Cl. 81—128.)

1. A wrench comprising a jaw, a second jaw movable with relation to the first and having a shank extending at right angles to the second named jaw, and a handle formed with a circular head larger in diameter than the width of the handle at the junction of the head, the handle being pivoted adjacent the junction of the head with the handle to said first named jaw, said pivot for the handle being disposed closely adjacent the shank for the second named jaw and the periphery of the head operating in the manner of a cam against the shank of the second named jaw to cause its movement relative to the first named jaw upon an oscillation of the handle.

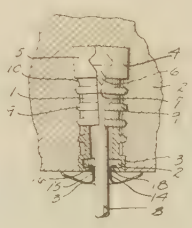


1,417,197. EXPANSION SHIELD. HENRY W. PLEISTER, Westfield, N. J., assignor, by mesne assignments, to Henry B. Newhall, Plainfield, N. J. Filed Mar. 31, 1921. Serial No. 457,264. 10 Claims. (Cl. 85—2.4.)



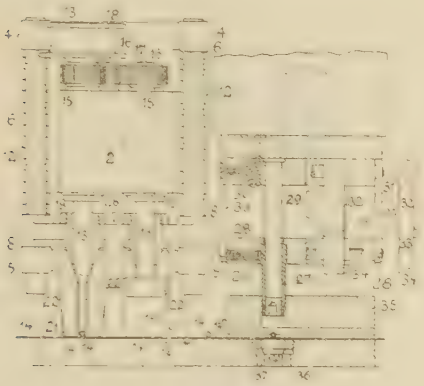
1. The combination in an expansion bolt of an expansion shield, the shield having a neck, an escutcheon plate, and means to connect the escutcheon plate with the interior of said neck.

1,417,198. EXPANSION BOLT. HENRY W. PLEISTER, Westfield, and JOHN KARITZKY, Garwood, N. J., assignors, by mesne assignments, to Henry B. Newhall, Plainfield, N. J. Filed Apr. 2, 1921. Serial No. 458,081. 5 Claims. (Cl. 85—2.4.)



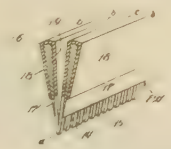
1. The combination of an expansion bolt having a neck provided with an interior groove, said groove having notches arranged at less than 180° apart adapted to receive the concentric lugs of an escutcheon plate.

1,417,199. METHOD AND APPARATUS FOR ROLLING IN THE NECK IN PRESS-BUTTON PARTS OR THE LIKE. PAUL PONDORF, Gossnitz, Germany, assignor to the Firm Maschinen- & Metallwaren-Fabrik G. m. b. H., Berlin, Germany. Filed Jan. 15, 1921. Serial No. 437,635. 2 Claims. (Cl. 79—3.)



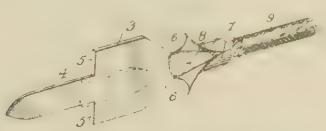
1. Apparatus for rolling in the necks in press-button parts comprising in combination a vertically reciprocable slide, a plurality of spindles rotatably mounted in said slide, means to rotate the spindles, a claw-head provided at the lower end of each of said spindles, claws pivoted to each of said claw-heads and adapted to effect in closing position the rolling in of the button-necks, downwardly conically reduced sleeves, rotatably mounted in a vertically reciprocable plate and loosely surrounding said spindles, said sleeves being adapted to engage with said claw-heads and to thereby effect the closing of the claws, pivoted to said claw-heads, a two-armed lever, adapted to be oscillated and to thereby effect the upward-movement of said plate, and spiral springs, adapted to effect the downward movement of the same.

1,417,200. HAIR-CUTTING DEVICE. FRANK J. PRICE, Brooklyn, and MERRILL W. GALLAWAY, New York, N. Y. Filed Aug. 7, 1920. Serial No. 401,831. 5 Claims. (Cl. 30—12.)



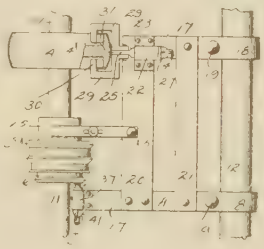
1. A sheet metal holder for the blades of a hair-cutting device wherein the sheet is folded centrally to provide a V-shaped portion having comb-like teeth, the margins of the sheet being folded reversely to provide external guide ways for the blades.

1,417,201. MASK. MAX PRILUKER, New York, N. Y. Filed Apr. 26, 1921. Serial No. 464,615. 1 Claim. (Cl. 24—115.)



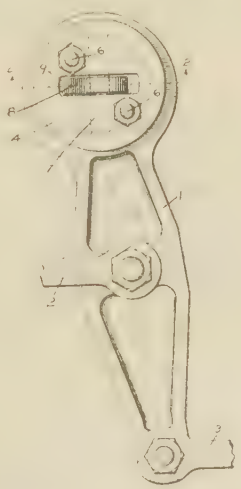
A device for coupling cords to masks and the like, comprising a flat blank of sheet metal having a body portion of substantially the same width throughout and having notches in its opposite margins, a tongue portion extending from one end and narrower than the body portion, forming stop shoulders, said tongue portion adapted to be bent to form an article engaging hook, the portion of the blank between the notches and the end opposite the tongue being adapted to be bent into cylindrical shape to engage a cord, and having indentations on one side forming spurs on the other side which also engages the cord.

1,417,202. FRICTION HEATING APPARATUS FOR POLISHING WHEELS. JULIUS PULS, Eagle Grove, Iowa. Filed June 7, 1921. Serial No. 475,783. 1 Claim. (Cl. 12—77.)



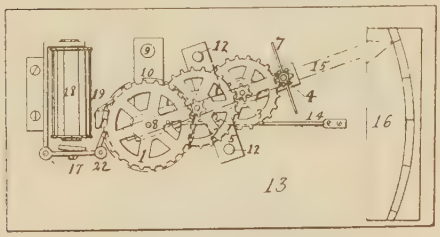
In combination with a burnishing machine having a burnishing wheel with laterally extending annular rim flanges, a heating device adapted to be attached to said machine, said heating device comprising a frame, a heating element thereon having a bifurcated arm, friction blocks thereon adapted to be brought into contact with the inner side of the flanges of the burnishing wheel, means for varying the tension on said friction blocks, said means including a shaft mounted in a bearing on the frame, a spring tending to force said shaft toward the face of the burnishing wheel, and a thumb nut on said shaft for drawing it toward the face of the burnishing wheel, said shaft having the bifurcated friction block carrying arm mounted on one of its ends.

1,417,203. BRAKE-LEVER CONNECTION. JOHN E. REDFORD, Kinloch Park, Mo., assignor to The American Brake Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 27, 1921. Serial No. 464,890. 4 Claims. (Cl. 188—1.)



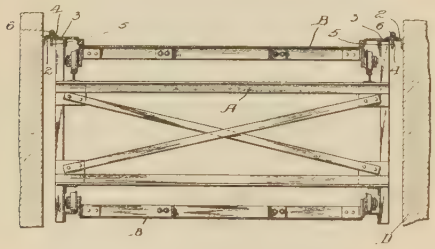
4. In a brake rigging, the combination with a brake lever and a pivot pin therefor, of a brake lever connection comprising oppositely disposed plates between which said pin is secured and provided with an annular bearing and a brake rigging member rotatably mounted on said bearing.

1,417,204. SPEED INDICATOR. HENRY H. RIGGS, Boston, Mass. Filed Nov. 18, 1918. Serial No. 263,007. 10 Claims. (Cl. 264—10.)



1. A speed indicator having a rotary wheel, a swinging frame, an arbor on which said wheel and frame are mounted, a steady mass mounted on said arbor and rotatable independently of said wheel, a pointer carried by said steady mass and having an elastic connection with said swinging frame, a damping mechanism carried by said frame and movable bodily by said frame in an arcuate path about the axis of said wheel as a center of rotation and intermediate mechanism whereby the damping mechanism is driven by said wheel.

1,417,205. LIQUID-SCREENING APPARATUS. GUSTAV R. RODDY, Milwaukee, Wis., assignor to Chain Belt Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Jan. 19, 1921. Serial No. 438,487. 8 Claims. (Cl. 210—172.)

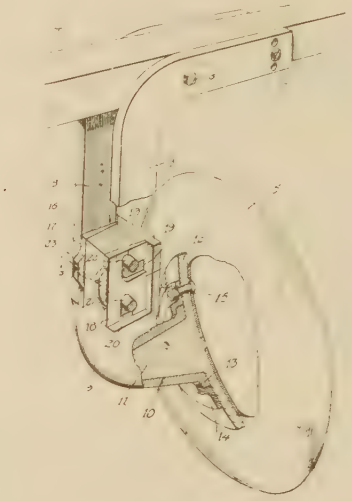


1. In a liquid screening apparatus comprising a chamber through which flows the liquid to be screened and a frame carrying the screen and adapted to be placed in the said chamber, cut-off means to separate the unscreened and the screened bodies of the liquid, located between the screen frame and the side walls of the chamber, and consistsing of flanges secured to the said chamber walls and projecting toward the screen frame, and other flanges carried by the screen frame and arranged to lie opposite to the said wall flanges and in approximately the same plane, but separated therefrom by narrow open spaces, and separate cover plates resting on the said flanges and closing the open spaces between them.

1,417,206. PROCESS FOR WEIGHTING OR CHARGING SILK TO BE DYED BLACK. ALBERT WILHELM SCHMID, Basel, Switzerland. Filed Feb. 18, 1922. Serial No. 537,537. 3 Claims. (Cl. 8—5.)

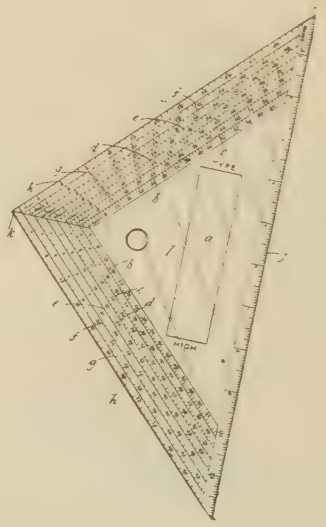
1. The herein described process for weighting or charging silk, to be dyed black, consisting in first weighting or charging silk according to the usual tin-phosphate process and treating it afterwards in a boiling lather or froth bath of a hæmatein solution to which chrysalides boiled up in water have been added.

1,417,207. DISK-ADJUSTING MECHANISM FOR AGRICULTURAL IMPLEMENTS. DUNY A. SCHUTT, Janesville, Wis., assignor to General Motors Corporation, Detroit, Mich., a Corporation of Delaware. Filed Mar. 7, 1921. Serial No. 450,307. 11 Claims. (Cl. 97—40.)



1. In disk supporting mechanism of the class described, a supporting member; a disk supporting bracket carried by said supporting member and capable of assuming three definite and predetermined positions and only three such positions relative thereto; a disk carried by said disk supporting bracket and rotatable relative thereto; and a plurality of wedges adapted when in place to hold said disk supporting bracket in either one of the three definite and fixed positions aforesaid relative to said supporting member.

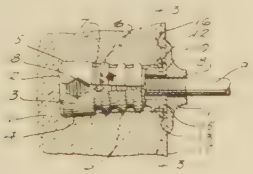
1,417,208. PRINTER'S TYPE GAUGE. FREDERICK GEORGE SHEPARD, Peckham, London, England. Filed Mar. 25, 1921. Serial No. 455,462. 1 Claim. (Cl. 33—113.)



A type gauge consisting of a transparent right angled triangle formed with a plurality of type gauge scales in parallel relation along its base and with a similar plurality of scales in parallel relation along its perpendicu-

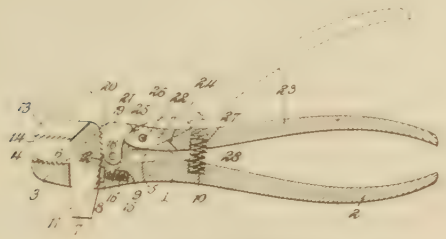
lar side, the said scales of each plurality starting from a line bisecting the right angle of the triangle and extending towards the hypotenuse substantially as set forth.

1,417,209. EXPANSION BOLT. DANIEL R. SHERWOOD, Plainfield, N. J., assignor to Henry B. Newhall, Plainfield, N. J. Filed Mar. 9, 1921. Serial No. 450,920. 4 Claims. (Cl. 85—2.4.)



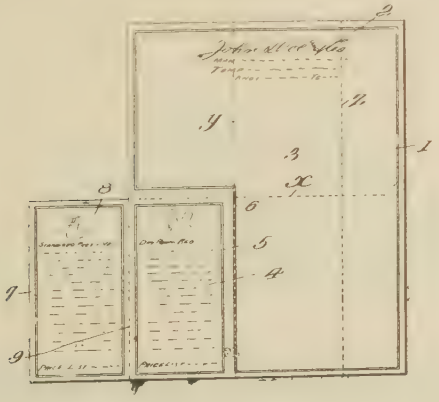
1. The combination of an expansion bolt, a detachable escutcheon plate, and means to hold the end of the expansion bolt against the inner surface of the escutcheon plate and in substantially the same vertical plane as the inner surface of said plate.

1,417,210. WRENCH. ABNER SHIRK, Decatur, Ill. Filed May 14, 1921. Serial No. 469,589. 6 Claims. (Cl. 81—138.)



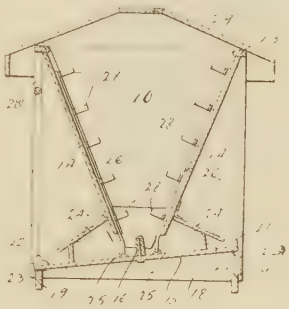
1. A wrench comprising a body member having at one end a stationary jaw and a handle at the opposite end, a movable jaw having its shank slidable on the body member and provided with teeth on its rear edge, a dog pivoted to said body member and provided with teeth adapted to engage with the teeth of the movable jaw, and a clamping lever pivoted to said body member and adapted to engage with the dog to rock the dog and also the movable jaw and move said jaw towards the stationary jaw.

1,417,211. COMBINED LETTER AND ENVELOPE STUFFER OR THE LIKE. EDWARD P. SHURICK, Knoxville, Tenn. Filed Dec. 14, 1921. Serial No. 522,240. 7 Claims. (Cl. 283—56.)



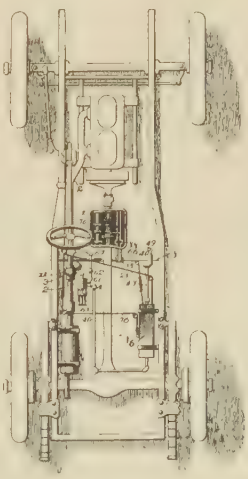
1. A device of the class described comprising a letter sheet having an integral flap or extension provided with suitable indicia, said flap or extension being of less length than the side of said letter sheet of which it is a part, said flap being foldable on and within the marginal line of the letter sheet in and for the purpose set forth.

1,417,212. HOG FEEDER. GEORGE W. SMIDLEY, New Holland, Ohio. Filed Sept. 23, 1919, Serial No. 325,765. Renewed Aug. 11, 1921. Serial No. 491,648. 5 Claims. (Cl. 119—54.)



5. In a stock-feeder, the combination of an open-bottomed feed-receptacle, supports therefor to hold it a little distance above ground, a tilting platform provided with troughs adjacent to the receptacle and projecting outside the troughs, to serve as foot supports for the animals and middle supports for said platform.

1,417,213. GEAR SHIFTER. WILLIAM GRANT STEVENS, Jr., Willis, Tex. Filed Sept. 30, 1919. Serial No. 327,416. 48 Claims. (Cl. 74—58.)

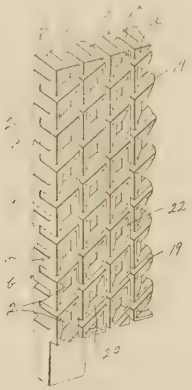


1. The combination, of an exhaust gas manifold, transmission gears, and means actuated by the pressure of the exhaust gas in said manifold for shifting said gears.

1,417,214. STORAGE-BATTERY ELEMENT. JOHN CLARENCE SUNDBY, Enderlin, N. Dak., assignor to Sundby Battery & Manufacturing Company, Enderlin, N. Dak., a Corporation of North Dakota. Filed Sept. 7, 1920. Serial No. 408,708. 6 Claims. (Cl. 204—29.)

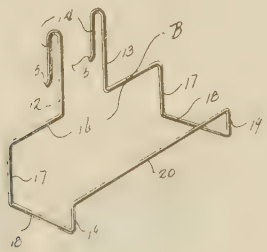
1. A battery element comprising a metallic plate having its opposite faces intersected by two series of grooves, the grooves of one series being disposed in angular rela-

tion to the grooves of the other series, the grooves thus dividing the active faces of the battery element into a series of electrically connected polygonal electrolyte con-



tacting portions, each of these polygonal portions being pierced transversely of the thickness of the plate to permit the passage of electrolyte through the plate.

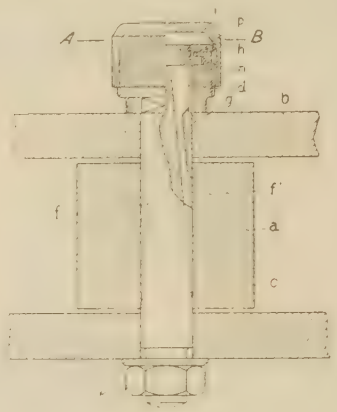
1,417,215. HEAT-UTILIZING DEVICE. JAMES F. SYRETT, Baltimore, Md. Filed Dec. 13, 1920. Serial No. 430,334. 2 Claims. (Cl. 126—332.)



1. As an article of manufacture, a wire supporting frame including a pair of supporting arms, each of said arms including a vertical stem portion provided with a hooked end, and a second vertical stem portion offset from said first mentioned stem portion by a horizontal portion, horizontal arms extending from the ends of said second vertical stem portion of each supporting arm and being provided on their outwardly projecting ends with upturned stems, shorter in length than the length of said supporting arm stem portions, and a supporting rail connecting the upper ends of said upturned stems in such manner that said supporting arms will lie in substantially the same plane, with said second mentioned vertical stem portions thereof offset farther with respect to each other than said first mentioned stem portions of said supporting arms, said rail lying substantially parallel with the plane defined by said supporting arms.

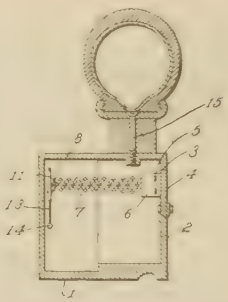
1,417,216. LUBRICATOR. EDWARD TATSCHKE, Berlin, Germany. Filed Nov. 3, 1921. Serial No. 512,669. 3 Claims. (Cl. 184—48.)

2. A lubricator for spindles and the like comprising a sleeve embracing an end of the spindle and having an undercut recess with an overhanging portion, a cap threaded on the sleeve having notches therein, and a locking ring lying within the outer portion of the sleeve and having an end thereon engaging non-rotatively with the sleeve and adapted to take into the recesses in the



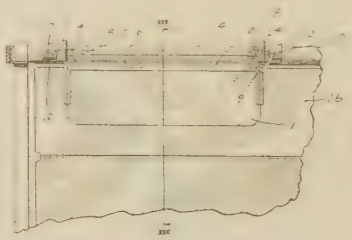
cap, said ring having fingers bent therefrom and lying within the recess and engaging the overhanging portion.

1,417,217. AUTOMOBILE ALARM. WILLIAM ALFRED TAYLOR, Detroit, Mich. Filed July 25, 1921. Serial No. 487,265. 4 Claims. (Cl. 116—33.)



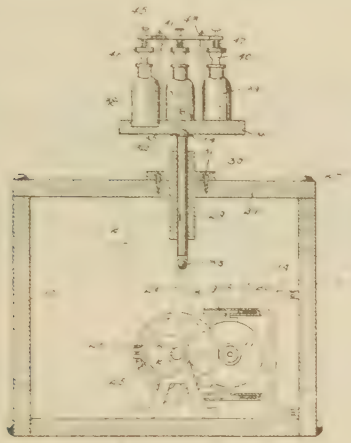
3. An alarm including a resonant housing, a segmental section thereon insertible between spokes of a wheel, a door normally closing said section, an extensible support upon the door, a strip mounted to rotate freely on the support, clappers loosely connected to the ends of the strip for striking the housing when the support is extended, and means for holding the support retracted into the extension.

1,417,218. ADJUSTABLE SUN AND LIGHT DIFFUSER. THOMAS J. TREICHEL, San Francisco, Calif. Filed Mar. 16, 1921. Serial No. 452,831. 2 Claims. (Cl. 296—97.)



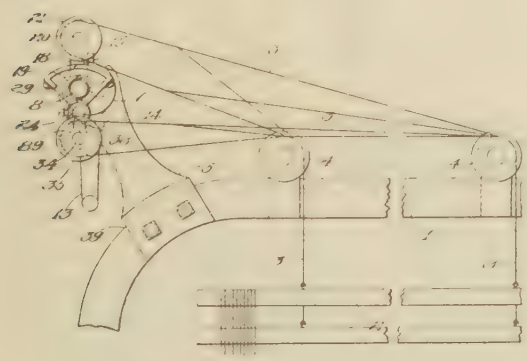
1. A wind shield attachment comprising a rod secured to the top member of the wind shield in parallel relation to the same, a plate, spring means associated with the rod supporting the plate and tending to revolve the same around the rod and flexible means actuated by the spring means for limiting the revolving motion of the plate.

1,417,219. AUTOHEMIC THERAPY POTENTIZER. THOMAS H. WARREN, Dexter, Iowa. Filed Aug. 22, 1921. Serial No. 494,261. 1 Claim. (Cl. 259—59.)



In a device of the class described, a support having a plurality of recesses therein for receiving the bottom end of bottles, a plurality of posts on said support, an annular member slidably mounted on said posts, means on said posts for limiting the upward movement of the annular member, a plurality of rods slidably mounted in said annular member having heads on their upper ends and caps, formed with a downwardly, extending, peripheral flange on their lower ends, springs on said rods between said caps and said annular member, whereby a closure member placed in the neck of a bottle may be engaged by said cap and yieldingly held in position for the purposes stated.

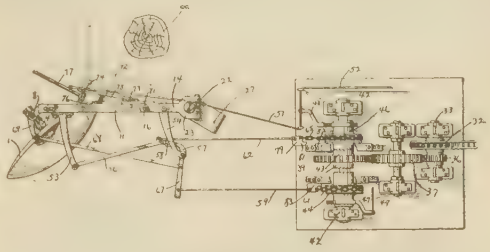
1,417,220. HARNESS-OPERATING DEVICE FOR LOOMS. JABEZ WILKINSON, Fall River, Mass. Filed Feb. 25, 1921. Serial No. 447,786. 8 Claims. (Cl. 139—80.)



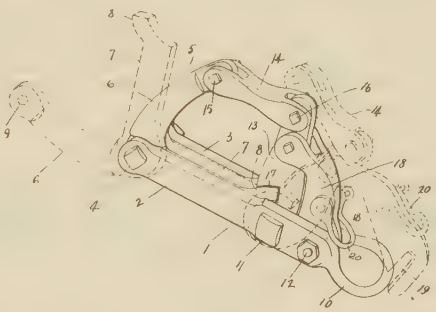
1. In combination with a harness supporting lever for a loom, a stud on which said lever is mounted, a rotatable eccentric bearing for said stud, and a forked support having a concaved seat between the branches of the fork for said bearing, said bearing being rotatable on its axis on said seat to shift the axis of the stud to a different position to lower the harness frame and being removable by lifting from its seat.

1,417,221. DISK PLOW AND THE LIKE. SHINKICHI YUASA, Cupertino, Calif. Filed June 1, 1921. Serial No. 474,152. 12 Claims. (Cl. 97—40.)

1. In combination with a gang plow, an auxiliary disk plow comprising two longitudinal frame members pivotally connected to each other, a disk secured to the rearward member, drawing means secured to the front member, and means for selectively adjusting the relative position of the frame members to each other between longitudinal alinement and angular relation, whereby the position of the disk is changed relative to the line of draft.

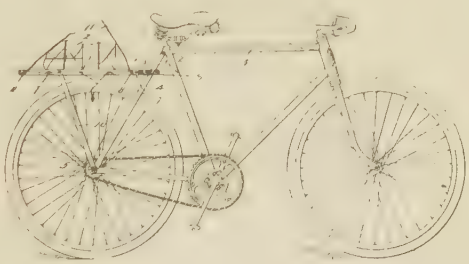


1,417,222. TOWING HOOK. JOHN ABRAHAM, Vancouver, British Columbia, Canada. Filed May 13, 1921. Serial No. 469,345. 1 Claim. (Cl. 114—217.)



A hook comprising a shank formed of a pair of parallel side bars connected at one end to form a shackle end, a bill pivotally mounted between the opposite ends of said bars having an arm lying normally therebetween, a normally vertical arm pivotally mounted between the bars adjacent the shackle end having a notch in which the end of the bill arm is normally engaged, an arm pivotally connected at one end to said vertical arm at a point above its midheight having its lower end provided with a notch and disposed between the shank bars behind the vertical arm and a bolt extending through said bars with which the last mentioned notch is normally engaged.

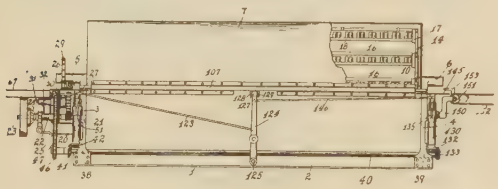
1,417,223. REAR PACKAGE CARRIER FOR BICYCLES AND THE LIKE. CARL A. ANDERSON, Minneapolis, Minn. Filed Oct. 18, 1920. Serial No. 417,702. 2 Claims. (Cl. 224—38.)



1. A package carrier comprising a supporting member adapted for attachment to a vehicle of the bicycle or motorcycle type, a clamping wing pivotally mounted near one end of the member, a second clamping wing pivotally mounted near the other end of said member, resilient

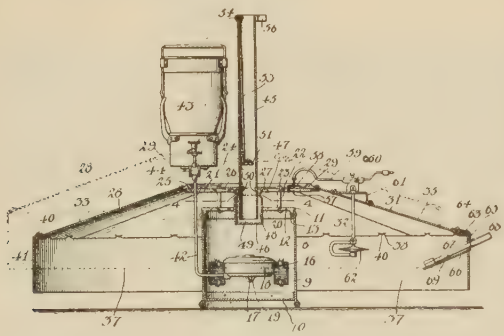
means exerting its influence to press each of said wings downwardly upon said member, whereby articles resting upon said carrier may be pushed horizontally thereof and resiliently held upon said supporting member, substantially as described.

1,417,224. EXHAUST BOX. JOHN F. ANDERSON, Oakland, Calif. Filed Jan. 31, 1921. Serial No. 441,211. 17 Claims. (Cl. 126—272.)



1. In an exhausting box of the character described, a substantially closed heated chamber, a reel rotatably mounted in said chamber, shelves on said reel, means for rotating the reel, means for feeding the cans to a point where they may be introduced into the chamber, means for subsequently positioning the cans to register with the shelves, and means for moving the positioned cans on to the shelves, means for removing the cans from the shelves and from said chamber.

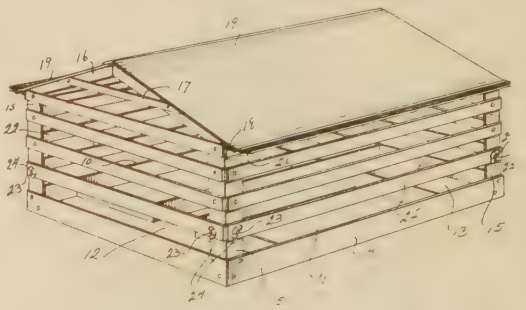
1,417,225. HOVER FOR POULTRY. ARLINGTON L. BALL, Dunkirk, N. Y., assignor of one-third to Harry C. Hequembourg and one-third to Gertrude P. Hequembourg, Dunkirk, N. Y. Filed July 31, 1918. Serial No. 247,526. 9 Claims. (Cl. 119—32.)



1. In a hover, the combination of a central heater casing having an opening in its top wall, a hover casing supported by said heater casing and having a central flat portion and a canopy portion carried by said flat portion and being directed outwardly and downwardly therefrom, said canopy portion having a flexible curtain secured to its edge with the lower edge of said curtain spaced from the floor, a pipe extending centrally through the hover casing, and a drum supported by said hover casing and extending into said heater casing and having openings in its sides at a point above the lower end of said pipe, the lower end of said pipe being spaced from the bottom of said drum.

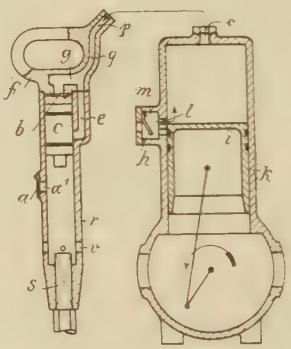
1,417,226. CHICKEN FEEDER. OVERTON M. BENNETT, Uniondale, Pa. Filed May 9, 1921. Serial No. 467,953. 2 Claims. (Cl. 119—16.)

1. A poultry feeder of the character described comprising a relatively shallow, rectangular pan having a rim, metallic posts angular in cross section attached to the corners of said rim and projecting upward therefrom, a roof supported on said posts, slats connecting the upper ends of the posts, said posts just above the wall of the pan being vertically slotted, and slats disposed immediately above and in spaced relation to the rim of the pan, and



bolts passing through said slats and into said posts whereby the slats may be raised or lowered relative to the rim of the pan.

1,417,227. ROCK DRILL AND LIKE CUTTING MACHINE. AUGUST BERNER, Nuremberg, Germany, assignor to C. & E. Fein, Elecktrotechnische Fabrik, Stuttgart, Germany. Filed Jan. 8, 1914. Serial No. 810,949. 5 Claims. (Cl. 255—42.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

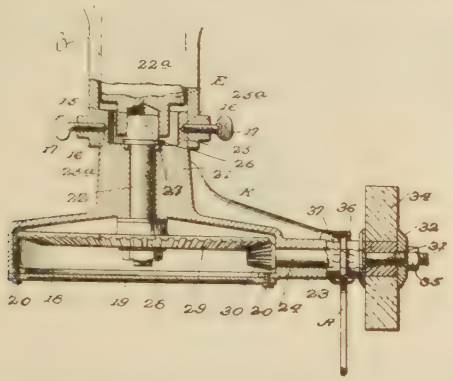


1. In a rock-drill or like cutting machine having a hammer cylinder with piston and a single acting air pump for operating it, means for rendering the change of the stroke of the hammer piston independent from the position of the pump piston and make it dependent from the position of the hammer piston, comprising an exhaust valve in the hammer cylinder arranged to open immediately after the forward stroke of the hammer piston whereby the change of stroke is effected after the forward stroke, and a valve in the rear cover of the hammer cylinder producing with its aid during the rearward stroke an air cushion between the hammer piston and the rear cylinder cover, initiating the change of stroke after the rearward stroke.

1,417,228. ATTACHMENT FOR MOTOR-DRIVEN DEVICES. ANDREW GEORGE BLOCKER, St. Louis, Mo. Filed June 27, 1921. Serial No. 480,651. 2 Claims. (Cl. 51—241.)

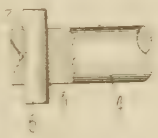
1. An attachment for motor driven devices of the class described having a casing including a barrel receiving the shaft of the motor, said attachment comprising a casting adapted to be detachably secured to the barrel and having angularly disposed bearings, a shaft journaled in one bearing and adapted to be operatively connected to the motor shaft for rotation therewith, a second shaft journaled in the other bearing, gears operatively connecting the two shafts, said casing having an enlarged hollow portion

between its said bearings, forming a housing for said gears and open at one side, a detachable cover plate normally closing said housing, and an element adapted to



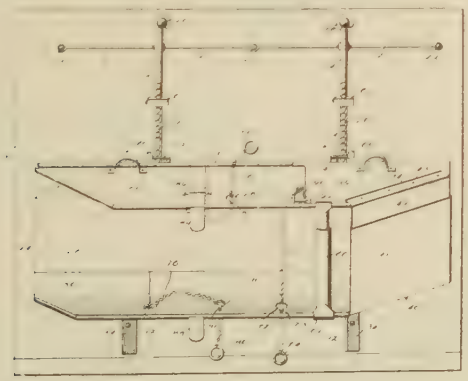
perform work when rotated, said element being secured to the second mentioned shaft for rotation therewith externally of the casing.

1,417,229. ROD AND CROSS PIN CONNECTION AND METHOD OF MAKING SAME. CHARLES F. S. BYRNE, Janesville, Wis., assignor to General Motors Corporation, Detroit, Mich., a Corporation of Delaware. Filed Mar. 8, 1920. Serial No. 364,089. 3 Claims. (Cl. 287—54.)



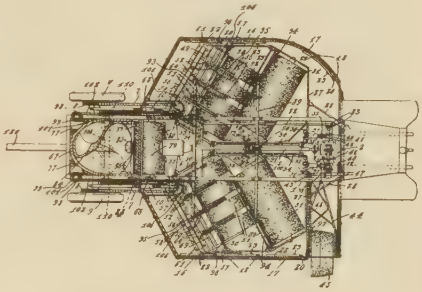
1. The method of securing a cross pin in an apertured rod having a countersink in its end, which consists in forming a recess in said pin, placing said pin in the recess of the rod so that the recess will be opposite said countersink, and distorting the metal beneath said countersink into said recess.

1,417,230. RESTRAINING APPARATUS. GIP CORTEZ, Tipton, Calif. Filed Dec. 11, 1920. Serial No. 430,029. 10 Claims. (Cl. 119—103.)



1. An animal restraining apparatus comprising a plurality of inclined brackets, a stationary section and a movable section mounted upon said brackets, spring latches carried by said movable section and having means engaging said brackets whereby to hold the movable section in position, said sections being provided with upstanding side walls, one of the side walls being provided with a hinged portion defining a gate, means to lock said gate to the side wall in a set position, a telescoping base inclusive of a pair of slidably connected sections having their outer ends joined to said side walls, a head confining member inclusive of a pair of slidably connected flat metallic sections adapted to flatly contact with the top of an animal's head, the outer ends of the sections of said head confining member being secured to the ends of said side walls, and chains carried by said side walls to engage the limbs of an animal.

1,417,231. STREET SWEEPER. ALBERT C. DEWEESE, Chicago, Ill. Filed Apr. 2, 1920. Serial No. 370,782. 2 Claims. (Cl. 15—19.)



1. In a device of the class described, a vehicle including a main frame; an auxiliary frame hinged to the main frame for raising and lowering; means for raising and lowering the auxiliary frame; a brush journaled for rotation in the auxiliary frame; means for rotating the brush; a fixed brush located to the rear of the first specified brush; means for connecting the fixed brush with the auxiliary frame for upward and downward swinging movement relative to the auxiliary frame; and means for applying suction to the fixed brush.

1,417,232. METHOD OF MAKING INSECTICIDES. HERBERT H. DOW, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a Corporation of Michigan. Filed Feb. 6, 1919, Serial No. 275,450. Renewed Oct. 24, 1921. Serial No. 510,100. 6 Claims. (Cl. 167—6.)

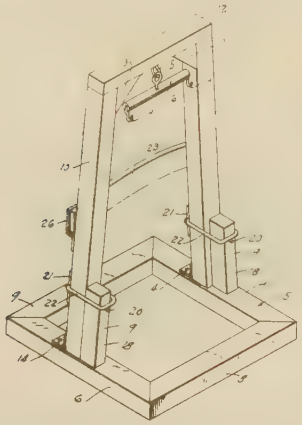
1. The method of making an insecticide, which consists in reacting between a suitable lead compound and an excess of arsenic acid and neutralizing the residual acid with an excess of an alkaline earth hydroxide.

1,417,233. DISK WHEEL. EMIL R. DRAVER, Richmond, Ind. Filed Oct. 4, 1920. Serial No. 414,552. 3 Claims. (Cl. 301—63.)

1. A disk wheel having a rim adapted to be equipped with a pneumatic tire and having a radial valve stem passage located on the inner side of the wheel disk, said wheel disk having an inwardly bulged pocket with a valve

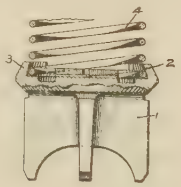
stem passage therein aligned with the valve stem passage in said rim, whereby the valve stem of an applied tire may be projected into said pocket where access may be had thereto from the outer side of the wheel.

1,417,234. BUTCHERING STAND. CHARLES M. DUKE, Murphysboro, Ill. Filed Feb. 23, 1922. Serial No. 538,599. 6 Claims. (Cl. 17—30.)



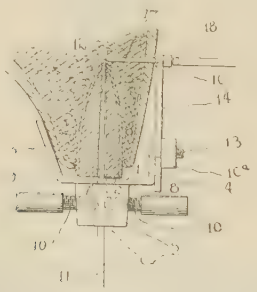
1. A butchering stand of the character described comprising a base, a frame movably connected to the base, means carried by the frame for supporting an animal, and means carried by the frame and operatively connected to the base to prevent movement of said frame relative to the base.

1,417,235. PUMP VALVE. ALEXANDER ENGLAND, Wilkinsburg, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Apr. 5, 1920. Serial No. 371,252. 2 Claims. (Cl. 251—144.)



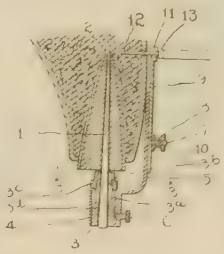
1. The combination with a coil spring, of a valve having an annular conical recess with a portion of the wall of the recess cut away to permit the end coil of the spring to be screwed into the recess.

1,417,236. DENTAL INSTRUMENT. GEORGE EVANS, New York, N. Y. Filed May 17, 1921. Serial No. 470,243. 7 Claims. (Cl. 32—10.)



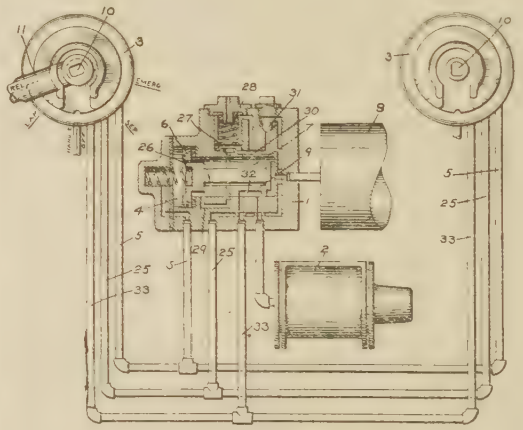
1. A dental instrument comprising means for determining the extent of a root canal, a holder therefor, and guide means carried by said holder to co-operate therewith and permit the drilling of a hole through the root embedding bone to intersect the root apex.

1,417,237. DENTAL INSTRUMENT. GEORGE EVANS, New York, N. Y. Filed Oct. 15, 1921. Serial No. 507,818. 3 Claims. (Cl. 32—10.)



3. In a dental instrument, in combination, a cylindrical holder having a flattened outer portion and an axial orifice for the reception of a probe, means for securing the probe in the holder with its length adjusted to measure the extent of a root canal, a socket member with an internal flat portion adapted to fit over the holder, means for securing the socket member to the holder, a bar extended from the socket member to lie alongside the gum, a supplementary bar having guide means for directing a drill into intersecting relation with the probe at the root apex, and means of lengthwise, adjustable engagement between the supplementary and extended bars.

1,417,238. SAFETY CAR-CONTROL EQUIPMENT. CLYDE C. FARMER, Pittsburgh, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Original application filed Mar. 26, 1920, Serial No. 368,908. Divided and this application filed July 26, 1921. Serial No. 487,655. 3 Claims. (Cl. 303—84.)

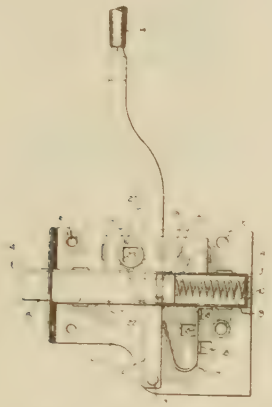


1. In a fluid pressure brake, the combination with a reservoir adapted to be charged with fluid under pressure and a pipe line adapted to be charged with fluid under pressure from the reservoir, of means operted upon a predetermined reduction in pressure in the reservoir for cutting off communication from the reservoir to the pipe line.

1,417,239. LATCH DEVICE FOR VEHICLE DOORS. KINGSTON FORBES, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a Corporation of Delaware. Filed Nov. 22, 1919. Serial No. 339,804. 3 Claims. (Cl. 292—169.)

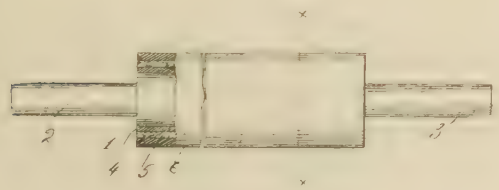
1. In a latch device of the class described, a latch plate; a bolt guide carried by said plate and located adjacent the central portion thereof; a reciprocating spring

actuated bolt slidable in said guide and having an abutment at its inner end; an oscillating operating lever the lower end of which is pivotally connected with said latch plate and which lever extends transverse to said bolt and upward beyond said plate and the free end of which serves as an operating handle, and which lever engages the abutment aforesaid to thereby operate said bolt; an



oscillating latch actuating member supported by said latch plate above said bolt guide and having two oppositely disposed cam portions in direct contact throughout their lengths with said lever and either one of which may operate the same, to thereby operate said bolt; and a spring acting to force said operating lever into engagement with said cam portions.

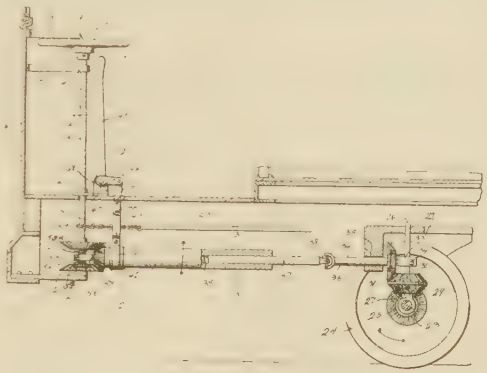
1,417,240. ELASTIC ROLLER. KINSUKE FUKUDA, Yokohama, Japan. Filed Oct. 8, 1920. Serial No. 415,636. 1 Claim. (Cl. 68—33.)



A roller for clothes wringers, comprising a metallic core, a thin layer of vulcanized rubber surrounding the core and coherent thereto, a substantial layer of sponge rubber surrounding and coherent to the first layer, and a third and external layer of dense, vulcanized rubber surrounding and coherent to the sponge rubber, the said metallic core being of greater diameter than the thickness of the combined layers.

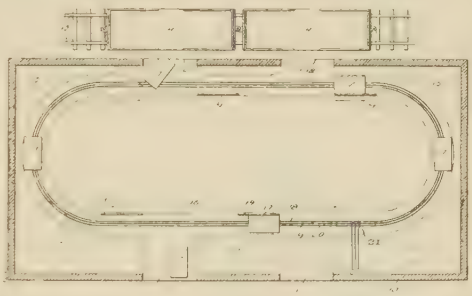
1,417,241. AUTOMATIC BRAKE MECHANISM. HARVEY F. GERHART, Philadelphia, Pa. Filed Oct. 19, 1920. Serial No. 418,060. 3 Claims. (Cl. 188—145.)

1. In a mechanism for automatically applying brakes, the combination with a brake stem having means for connection with brake shoes, of a driving mechanism for the stem, means shiftably connecting the mechanism and the stem for periodically transmitting power to the stem, means for shifting said shiftable means, whereby the stem may be periodically operated, a hand wheel loosely mounted on one end of the stem, a ratchet and pawl device connecting the hand wheel and the stem to hold the wheel movable with the stem in one direction, said hand wheel having a band ratchet, a fixed support, and a pawl mounted on the support and engaging the band ratchet,



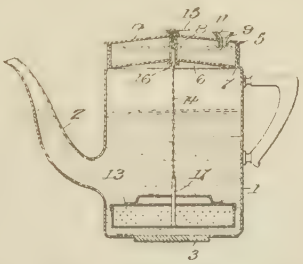
to hold the hand wheel against movement in the opposite direction, while the stem is being driven by the driving mechanism to apply the brakes.

1,417,242. FREIGHT-HANDLING SYSTEM. EDWIN B. GRACE and WILLIAM J. LAFFEY, Memphis, Tenn. Filed July 16, 1921. Serial No. 485,244. 3 Claims. (Cl. 104—29.)



1. A system of freight distribution comprising a walled inclosure having entrances and exits leading to and from the interior thereof, an endless runway within the inclosure, electrical conductors of a three wire system of distribution coextensive with said runway, trucks electrically operated from said conductors movable around said runway and manually operable to and from the entrances and exits of the inclosure, and deflectors arranged adjacent each entrance and exit of the inclosure for guiding the trucks into position on said runway.

1,417,243. COFFEE POT OR URN. CLARENCE D. GRAVES, Dublin, Ga. Filed Aug. 30, 1921. Serial No. 496,892. 5 Claims. (Cl. 53—3.)



1. A vessel for preparing decoctions having a condenser mounted in the upper portion thereof, a receptacle in

said vessel adapted to contain solid material, a chain or the like by means of which the solid material may be raised and lowered, and a tube extending through said condenser, through which tube said chain passes.

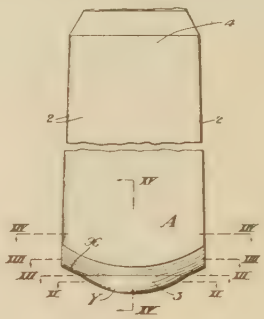
1,417,244. GARTER. ERICK O. HAMMERBERG, Chicago, Ill. Filed Dec. 13, 1919. Serial No. 344,557. 1 Claim. (Cl. 28—81.)

A garter or supporter comprising a pair of oppositely extended metal loops, each formed of a single wire and having a straight end portion, a rigid metal clasp for hinging said straight end portions together, said loops being formed with relatively narrow portions at their remote ends and each being formed with its intermediate portions converging, a cross strip for the proximate intermediate portions of each loop for dividing each loop into two portions, a flexible strip threaded upwardly through the inner portion of one loop, around said hinged straight portions of said loops, and then downwardly through the inner portion of the second loop, and a button carried at each end of said strip, each adapted to engage with the adjacent relatively narrow end portion of the adjacent loop.

1,417,245. ANIMAL POKE. OLIVER H. HARRIS, Moro, Ark., assignor of one-fourth to John L. Lee, Thomasville, Ark. Filed July 2, 1921. Serial No. 482,236. 3 Claims. (Cl. 119—140.)

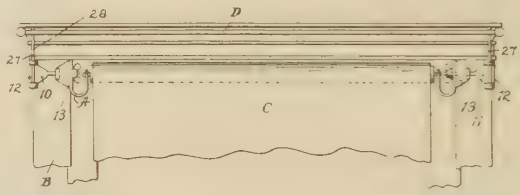
1. An animal poke comprising a neck yoke, an operating yoke straddling the upper portion of the neck yoke and pivotally connected therewith and normally aligned therewith, a fence engaging hook on said operating yoke for swinging the latter, and a pair of pricking prongs pivoted upon opposite sides of the neck yoke and pivotally and slidably connected with the ends of the operating yoke, the pricking points of said prongs being concealed intermediate the neck and operating yokes when said yokes are alined.

1,417,246. INGOT. BENJAMIN P. HAZELTINE, Wheeling, W. Va. Filed Mar. 5, 1921. Serial No. 449,789. 4 Claims. (Cl. 22—218.)



1. As a new article of manufacture, an ingot of rectangular cross section, having lengthwise tapering sides and having a rounded surface on the base or butt end thereof, said rounded surface having an unequal curvature of two radii.

1,417,247. SHADE AND CURTAIN BRACKET. JOHN A. HEMFLING, Lester Prairie, Minn. Filed July 17, 1920. Serial No. 397,060. 2 Claims. (Cl. 156—24.)

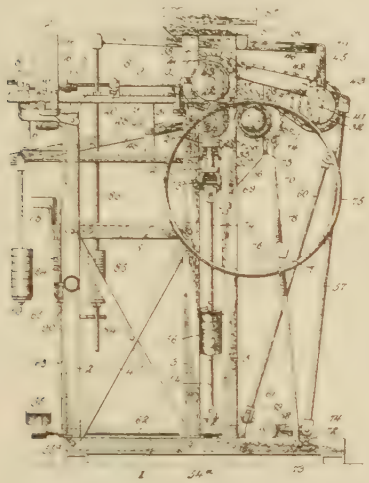


2. In a combined window shade and curtain pole supporting bracket, a pair of triangular shaped sections, right angularly extending jaws formed on the base portions of the sections, inwardly extending biting teeth formed on the outer edges of the jaws, an inwardly extending rod formed on the apex portion of one of the sections, a right angularly extending foot formed on the apex portion of the other section, the right angularly extending foot and jaw of the last mentioned section having aligned openings therein arranged to slidably receive the rod, the outer end of said rod being threaded, a winged nut fitted on said rod arranged to frictionally engage the last mentioned section, a depending resilient bendable plate formed on the lower edge of the jaw of the last mentioned section, a vertically disposed extension formed on said bendable plate provided with means for the reception of a pintle of a window shade roller, the other section having vertically aligned eyes formed therein, and a curtain pole supporting rod detachably fitted in said aligned eyes.

1,417,248. SOIL MIXTURE FOR A FORCED GROWING OF POTATOES AND METHOD FOR ITS MANUFACTURE. JEAN HUSSON, Berne, Switzerland. Filed Dec. 28, 1920. Serial No. 433,670. 5 Claims. (Cl. 71—9.)

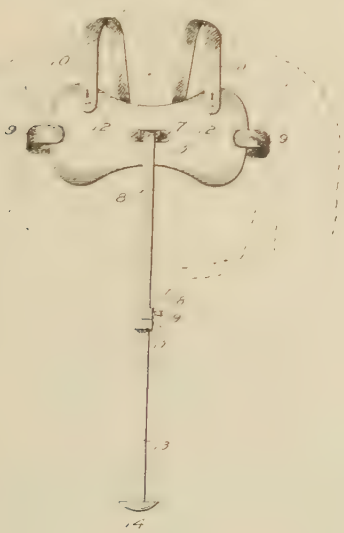
1. A soil mixture adapted for the artificial and forced growing of potatoes containing sand and a manure comprising a nitrogenous and a phosphatic substance and a salt of potassium in the following proportion: 2 to 3% of nitrogen, 3 to 4% of phosphoric acid soluble in water, 1 to 2% of potash.

1,417,249. SPIRAL MACHINE. THEODORE KARDONG, Minneapolis, Minn. Filed Apr. 20, 1920. Serial No. 375,298. 26 Claims. (Cl. 153—65.)



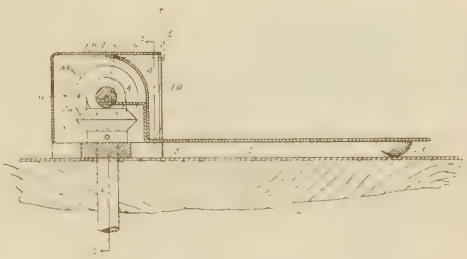
1. In a machine for producing helices, the combination of an upper roller, a lower roller, a third roller located to one side of the longitudinal vertical plane of the peripheries of the upper and lower rollers, a fourth roller located between the upper and lower rollers and the third roller, and means for positively driving all four rollers from the power shaft of the machine.

1,417,250. BACK BRACE. ROBERT EMMETT KELLY, Jacksonville, Fla. Filed Apr. 14, 1920. Serial No. 373,859. 4 Claims. (Cl. 155—37.)



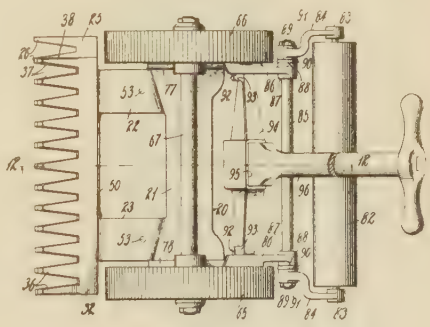
1. In combination, a breast plate, a post pivotally mounted on the front of the breast plate, and means for holding the breast plate in position on the chest of the wearer for supporting said post in a pendently swingable position from the chest, whereby when the wearer stands erect the post hangs downwardly in front of his body and when he stoops over the post will be swung out to contact with the ground.

1,417,251. DIRECTION INDICATOR. JESSE E. KELSEY, Theresa, N. Y. Filed Feb. 10, 1922. Serial No. 535,525. 2 Claims. (Cl. 116—52.)



1. In a direction indicator, a shaft, a target secured to said shaft, the attached end of said target having a right angular bend for disposing the free end portion of the target in a plane parallel to the attached end portion, a shaft disposed at right angles to the first shaft, bevel gears operatively connecting said shafts, a handle for operating said shafts, a housing enclosing the shafts, the gears, and the angular portion of said target, one side of said housing being normally opened, and a curved guard carried by the angular portion of the target and movable within the housing for preventing dust and dirt from reaching the gears.

1,417,252. LAWN MOWER. JOSEPH N. M. KEYZER, Lynchburg, Va. Filed Aug. 5, 1920. Serial No. 401,323. 8 Claims. (Cl. 56—262.)

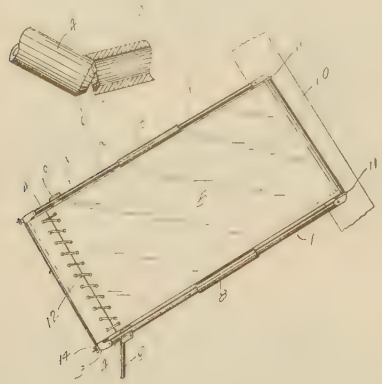


1. A mowing machine comprising a main frame including a hollow body having a hollow arm extending therefrom, bull wheels supporting the frame, a knife bar having a socket, the frame arm having an extension held in the socket, knives carried by the bar, a second knife bar slidably mounted upon the first knife bar and having knives in cooperative relation to the first named knives, a socket in the upper knife bar communicating with the hollow arm, a rocker pivoted within the arm and engaged at one end in the socket of the upper knife bar, and means for rocking the rocker from the bull wheels.

1,417,253. FOLDING CAMP BED. JOHN KIBLER, Jr., Walla Walla, Wash., assignor of one-half to Harry E. De Witt, Walla Walla, Wash. Filed Aug. 18, 1920. Serial No. 404,355. 2 Claims. (Cl. 5—5.)

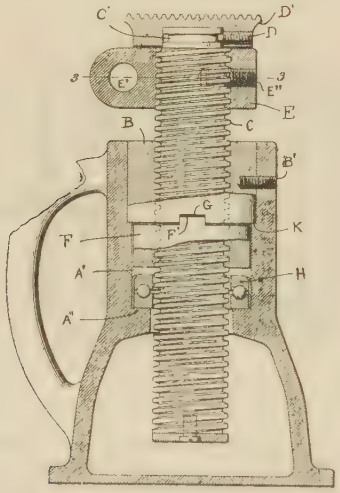
2. In a folding camp bed, a self stretching and folding frame, consisting of two major parts, each of said parts foldable upon itself, and each of said parts terminating in

one part of a ball and socket joint, to register with the socket and ball of its fellow, a sliding sleeve covering said joint, to maintain rigidity thereat, legs foldably at-



tached to said frame, an adjustable yielding bottom attached to said frame, independently adjustable tightening members supporting said bottom, and a means for tightening said members operably attached to said frame.

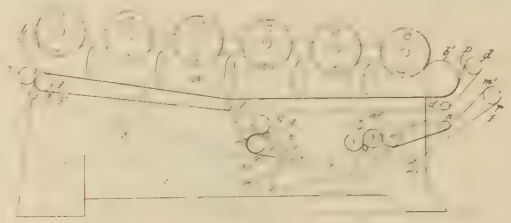
1,417,254. SAFETY LIFTING JACK. DAVID C. KLAUSMEYER, Cincinnati, Ohio, assignor to The Cincinnati Bickford Tool Company, Oakley, Cincinnati, Ohio, a Corporation of Ohio. Filed May 10, 1921. Serial No. 468,301. 10 Claims. (Cl. 254—98.)



1. A lifting jack of the nature disclosed combining a screw and a pair of elements cooperating therewith, one of which normally sustains the load and the other of which is adapted to sustain the load on the failure of the other element of said pair.

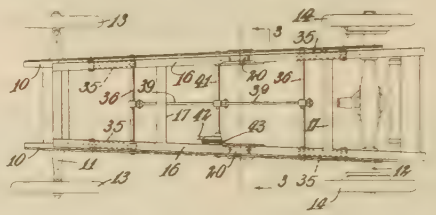
1,417,255. COMBINED IRONING AND FOLDING MACHINE. LEO M. KOHN, New York, N. Y. Filed Dec. 19, 1919, Serial No. 346,067. Renewed Nov. 12, 1921. Serial No. 514,822. 15 Claims. (Cl. 68—9.)

1. In a combined ironing and folding machine, the combination with the frame of a machine, of ironing devices arranged on said frame, means for passing the articles through said ironing devices, a plurality of article conveyors arranged on said frame in close proximity to said ironing devices, and folding devices co-operating with said conveyors to effect the folding of the articles in a



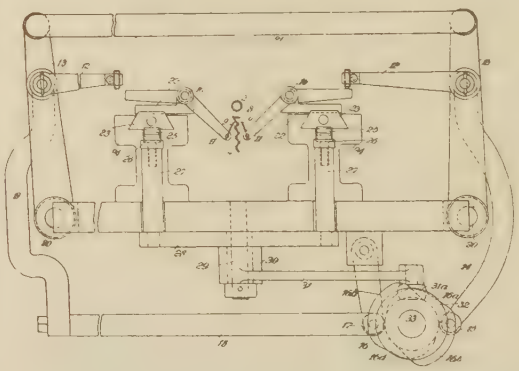
direction transverse to the direction of movement of said articles and to deliver said articles from the machine.

1,417,256. VEHICLE CHASSIS AND SPRING. LAWRENCE KOKOVAI, Dante, Va. Filed Oct. 13, 1921. Serial No. 507,582. 5 Claims. (Cl. 280—124.)



1. In an automobile, running gear including frame members, resilient supporting devices for said body carried by said frame members at three longitudinally spaced points, and means for vertically adjusting the front and rear devices to maintain a horizontal positioning of said body upon variation of the longitudinal disposition of the weight carried by said body, said means being adapted to effect an opposite adjustment in unison of the front and rear device.

1,417,257. MACHINE FOR THE MANUFACTURE OF RINGLET MESH OR NET WORK. REINHARD KÖLSCH, Pforzheim, Germany, assignor to the Firm of Louis Kuppenheim, Pforzheim, Germany. Filed June 29, 1920. Serial No. 392,898. 11 Claims. (Cl. 140—3.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



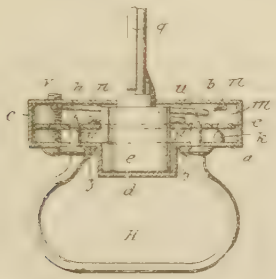
1. In a machine of the character described two ringlet row holding helixes one of which is arranged lower than the other for about half the diameter of a ringlet and having a space between their operating ends, one of said helixes for successively discharging ringlets and the other

taking up new ringlets as they are formed, means for rotating the helixes to produce the feed of the ringlet mesh and means to lift a freshly inserted ringlet from a horizontal position into a position to be taken up by one of the helixes.

1,417,258. PLUMBER'S SOIL. JOHN F. LEDDY, Hoboken, N. J. Filed Dec. 28, 1920. Serial No. 433,668. 3 Claims. (Cl. 134—1.)

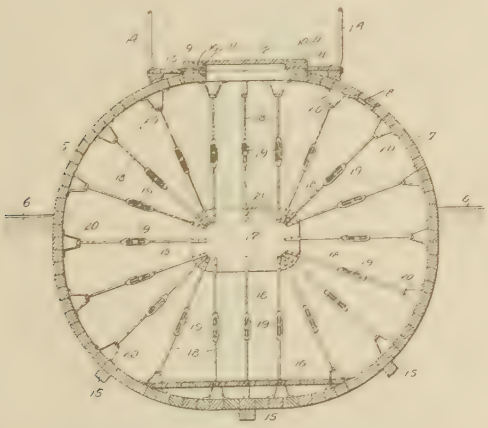
2. A plumber's soil, resulting from the admixture of the following ingredients in substantially the proportions indicated: ivory black, 2 lb.; chalk, 2 oz.; cylinder oil, 4 oz.; molasses, 1 lb.; vinegar, 5 oz.; sulphuric acid, 4 oz.; iron sulphate, 4 dr.; gum arabic, 6 dr.; hot water, 5 oz.

1,417,259. DAMPER-CONTROL DEVICE. WALTER L. LEEDY, Youngstown, Ohio. Filed Sept. 7, 1921. Serial No. 499,080. 6 Claims. (Cl. 126—295.)



1. In a device of the character described, a casing, a shaft rotatably mounted in said casing, a disk slidably mounted upon said shaft and locked against independent rotation, means for rotating said disk, and means for locking the disk in any desired position.

1,417,260. SHIP STRUCTURE. JOHN HJALMAR LINDROOS, Brooklyn, N. Y. Filed June 16, 1921. Serial No. 477,919. 5 Claims. (Cl. 114—83.)



1. In a device of the character described, a hull comprising a number of boards fitted together edge to edge and secured together in the proximate form of a cylinder, a plurality of tie rods connected with said cylinder and extending radially inward therefrom, and a brace plate connected with said tie rods at the inner ends thereof.

1,417,261. METHOD OF CONCENTRATING ORES. ROYER LUCKENBACH, Brooklyn, N. Y., assignor to Luckenbach Processes, Inc., San Francisco, Calif., a Corporation of Nevada. Filed Dec. 31, 1919. Serial No. 348,700. 9 Claims. (Cl. 83—85.)

1. The method of concentrating ores by flotation, which comprises aerating the ore pulp in the presence of a mixture comprising the reaction product of a bitumen and an alkali, and a mild acid in quantity sufficient to render the pulp non-alkaline and insufficient to decompose the reaction product, to form a froth, and separating the froth from the pulp.

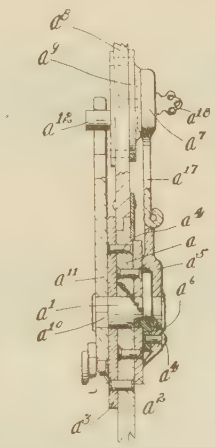
1,417,262. PROCESS OF CONCENTRATION OF ORES. ROYER LUCKENBACH, Brooklyn, N. Y., assignor to Luckenbach Processes, Inc., San Francisco, Calif., a Corporation of Nevada. Filed Jan. 3, 1921. Serial No. 434,758. 15 Claims. (Cl. 83—85.)

1. The process of concentrating ores, which comprises adding to a pulp composed of finely divided ore and water the reaction product of an alkali and lac, aerating the mixture to form a froth, and separating the froth from the remainder of the pulp.

1,417,263. CONCENTRATION OF ORES. ROYER LUCKENBACH, Brooklyn, N. Y., assignor to Luckenbach Processes, Inc., San Francisco, Calif., a Corporation of Nevada. Filed Jan. 13, 1921. Serial No. 437,027. 13 Claims. (Cl. 83—85.)

1. The process of concentrating ores, which comprises adding to a pulp composed of finely divided ore and water an alkali and a liquefied normally unsaponifiable resin, aerating the mixture to form a froth, and separating the froth from the pulp.

1,417,264. TRUNK LOCK. JOSEPH LUTTMANN, Cincinnati, Ohio, assignor to The Mendel-Drucker Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Jan. 7, 1921. Serial No. 435,732. 3 Claims. (Cl. 70—27.)

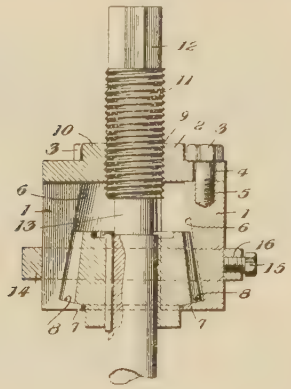


1. In a trunk locking device the combination of a revoluble pin mounted upon and extending through one relatively movable member of a trunk, a hasp mounted fixedly upon the pin exteriorly to the trunk, means to lock the hasp against rotatory motion, a stud mounted on the interior of the cooperating movable member of the trunk, and a hook mounted on the pin interiorly of the trunk and adapted to engage the stud when the hasp is locked against motion.

1,417,265. GEAR REMOVER OR PINION PULLER. GEORGE T. MCCLARRAN, Greensburg, Pa. Filed Jan. 15, 1921. Serial No. 437,534. 2 Claims. (Cl. 29—85.)

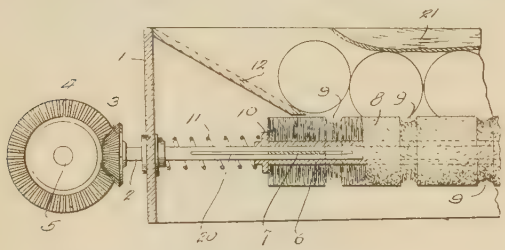
1. A pinion puller or gear remover including a substantially cylindrical body composed of sections and provided at one end with pinion engaging flanges and having threaded sockets in their other ends, a head fitted against

the latter ends of the sections and having openings registering with the said sockets, screws passing through the



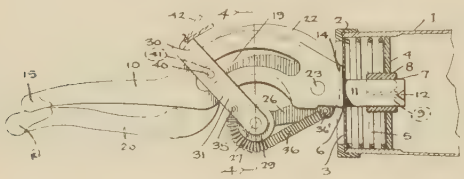
openings and engaging the threaded sockets, and a central shaft engaging screw mounted in the head.

1,417,266. FRUIT CLEANING AND BRUSHING MACHINE. REX DE ORE MCDILL, Haines City, Fla., assignor to Walter E. Richardson, Beaufort, S. C. Filed Feb. 2, 1922. Serial No. 533,642. 12 Claims. (Cl. 146—14.)



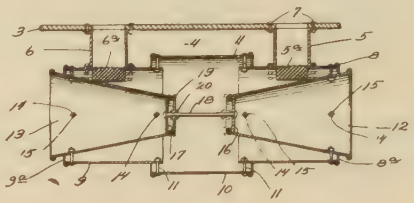
1. A machine for the purposes described, comprising a series of cylindrical brushes, means for rotating the brushes, stationary means for suspending the brushes, and means for alternately reciprocating the brushes longitudinally of said brushes on the stationary suspending means.

1,417,267. ATTACHMENT FOR ARTIFICIAL ARMS. WILLIAM A. MCELROY, San Francisco, Calif. Filed Aug. 31, 1921. Serial No. 497,091. 7 Claims. (Cl. 3—12.)



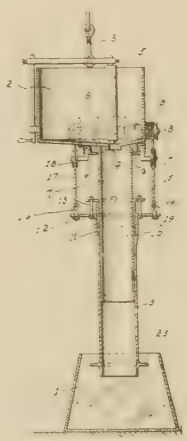
3. A device such as described comprising a supporting member; a relatively stationary hook member connected to said supporting member; and having a radial slot therein; a movable hook element pivotally connected to said first mentioned hook member, in juxtaposition therewith, and having a radial slot therethrough each of said slots being mounted eccentrically relative to each other; and means, pivotally connected to one of said hook members having an extended portion passing through said slots, adapted to move one of said hooks relative to the other.

1,417,268. COACH VENTILATOR. DALLAS MCINTYRE, Horton, Kans., assignor of one-half to William J. Stone, Horton, Kans. Filed Nov. 8, 1920. Serial No. 422,521. 4 Claims. (Cl. 98—22.)



4. A ventilator comprising a pair of alined open drums spaced apart, an enlarged central drum connecting and enclosing the adjacent ends of said drums; the said first-named drums having side openings at intermediate points beyond the ends of said central drum, conduits connecting said side openings with the interior of the car, a pair of alined truncated cones secured within and spaced from the walls of said drums with their reduced ends adjacent, a disk arranged between and of substantially the same diameter as the reduced ends of the cones, and supporting means for said disk to permit it, under the impact of an inrush of air through one of the cones, to slide rearwardly against and close the reduced end of the other cone.

1,417,269. MEANS FOR CASTING INGOTS. ALEXANDER MACMICHAEL and CHARLES SCHINK, Ashland, Ky. Filed Dec. 14, 1920. Serial No. 430,703. 5 Claims. (Cl. 22—79.)

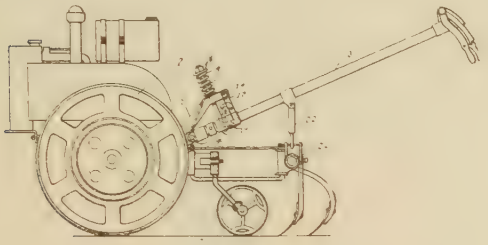


1. In an apparatus for casting ingots, the combination with a mold, and a ladle disposed above the mold, of a telescopic discharge spout carried by the ladle and adapted to enter the mold.

1,417,270. STEERING-POST SUPPORT FOR TRACTION MACHINES. JOSEPH MADER, Minneapolis, Minn., assignor, by mesne assignments, to Beeman Tractor Company, Minneapolis, Minn., a Corporation of Minnesota. Filed July 7, 1919. Serial No. 308,923. 13 Claims. (Cl. 97—42.)

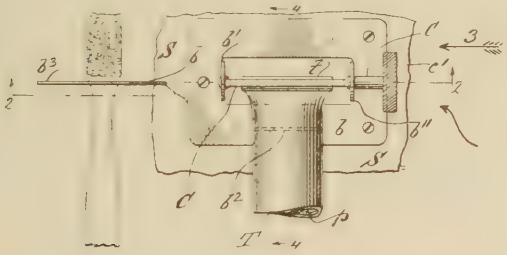
1. The combination, with a frame having supporting means, of a steering device mounted thereon for vertical

oscillation, means for supporting said device when raised to a predetermined point, and means co-operating with



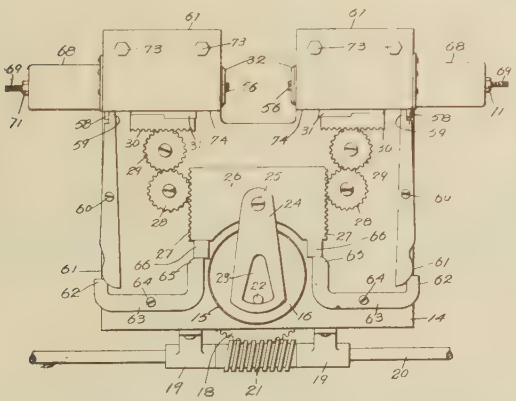
said supporting means for tripping it to release said steering device on continued upward movement thereof.

1,417,271. MEANS FOR MANIPULATING COLLAPSIBLE TUBULAR CONTAINERS. MORRIS MAER, Brooklyn, N. Y. Filed Mar. 31, 1921. Serial No. 457,308. 1 Claim. (Cl. 221—60.)



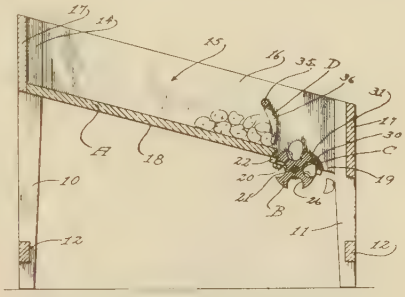
As an improved article of manufacture, a tube holder and compressor, embodying a single integral element comprising a body portion, flanges struck-up from said body portion within the confines thereof, and a tube rest struck-up from within the confines of said body portion and having its edge adapted to engage a tube, and a spindle supported in said flanges, said tube rest being disposed at right angles to the plane of the body portion.

1,417,272. NUTCRACKER. ARTHUR R. MANESS, St. Louis, Mo. Filed July 2, 1921. Serial No. 482,148. 9 Claims. (Cl. 146—3.)



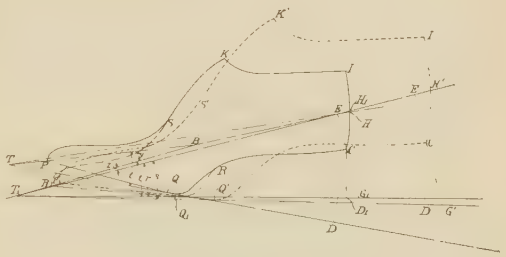
1. A nut cracker comprising a frame, sleeves slidably mounted in said frame, pincer collets slidably mounted in said sleeves, said collets adapted to pinch off the ends of the nut and then spread the shell away from the kernel.

1,417,273. SEED-POTATO CUTTER. JOSE SABINO MARQUEZ, Capulin, Colo., assignor of one-third to J. Luis Rivera, La Jara, Colo. Filed Oct. 17, 1921. Serial No. 508,149. 6 Claims. (Cl. 146—11.)



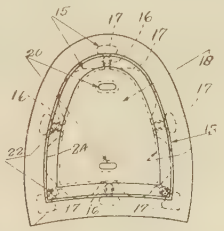
1. A seed potato cutter comprising a potato receiving bin having a lower inclined wall terminating short of the forward end of the bin, a rigid transversely extending knife disposed in the bin in front of the lower wall, and a transversely extending rotatable roller carried by the bin and disposed intermediate the rigid knife and the front edge of the inclined wall having a plurality of potato receiving grooves formed therein.

1,417,274. MODEL MAKING. RALPH S. MEGATHLIN, Somerville, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 1, 1921. Serial No. 488,860. 10 Claims. (Cl. 142—1.)



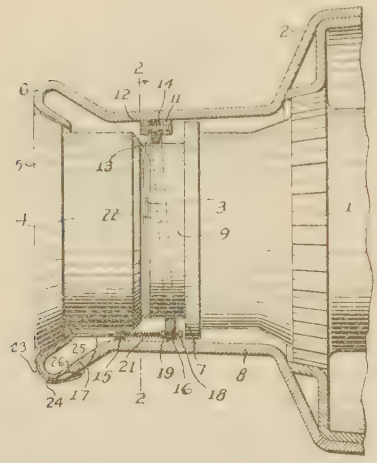
8. A last model of standard size and width differing from the standard model of that style by a bend between its forward part and its rear part, the bend being determined in connection with an assumed grade to produce a graded last having a predetermined profile characteristic.

1,417,275. REVERSIBLE INTERCHANGEABLE RUBBER HEEL. JOHN W. MEYERS, Elyria, Ohio. Filed July 17, 1920. Serial No. 397,130. 3 Claims. (Cl. 36—36.)



1. Means for attaching a rubber heel to a shoe comprising a metal plate, of similar shape, but smaller than the heel, adjustably secured to the heel portion of the shoe, said plate having a shouldered flanged periphery extending both above and below the plane of the central portion, and spaced headed studs secured to said plate adjacent the periphery adapted to cooperate detachably with socket members formed in a rubber heel.

1,417,276. WHEEL LOCK FOR QUICK-DETACHABLE WHEELS. GEORGE E. MOLYNEUX, Bayonne, N. J. Filed June 13, 1921. Serial No. 477,024. 14 Claims. (Cl. 301—9.)



1. In combination with the hub-shell of a quick detachable wheel and the inner hub-shell cooperative therewith, a locking device carried by one of the shells and adapted to lock the two shells together.

1,417,277. PROCESS OF PRODUCING UREA FROM LIME NITROGEN. OTTO NYDEGGER, Bern, and HENRY SCHELLENBERG, Personico, Switzerland. Filed Nov. 6, 1920. Serial No. 422,255. 1 Claim. (Cl. 260—125.)

Process of producing urea from lime-nitrogen by mixing lime-nitrogen with nitric-acid in presence of a concentrated solution of nitrate of calcium.

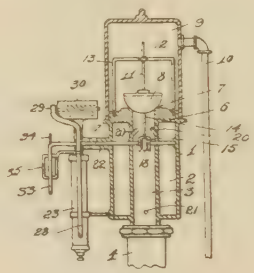
1,417,278. UNIVERSAL ALIGNMENT BEARING REAMER AND BABBITTING BAR. KARL R. PETERS, Philadelphia, Pa. Filed Aug. 7, 1920. Serial No. 402,071. 17 Claims. (Cl. 77—2.)

1. A device of the character described adapted to be detachably mounted upon a casing, comprising a boring-bar, bearing members, in which the boring-bar is mounted, said bearing members having arms extending in opposite directions from each other and at right angles to the length of the boring-bar, a bracket mounted upon each of said arms and adapted to engage the casing, and fastening devices for securing the brackets upon the said arms and rigidly secure the bearing members upon the casing.

1,417,279. SHIM FOR SPRINGS AND THE LIKE. KARL R. PETERS, Philadelphia, Pa. Filed Dec. 2, 1921. Serial No. 519,347. 7 Claims. (Cl. 267—50.)

1. A friction reducing shim adapted to be inserted between plates of springs and the like, consisting of a soft metal having antifriction qualities, and a stay sheet of relatively harder material upon which the said softer metal is applied.

1,417,280. FLUSHING TANK. HOMER L. PHILLIPS, South Bend, Ind., assignor of one-third to Chester Phillips, South Bend, Ind. Filed Apr. 1, 1921. Serial No. 457,684. 4 Claims. (Cl. 4—5.)



1. The combination with a flushing tank having a vertically movable controlling valve, of means for moving said valve vertically and delaying the receding thereof, said means comprising a rockable shaft, means carried by said rockable shaft for moving the valve vertically when it is rocked, an operating lever to the outside of the tank and normally held down by a spring, said lever being disposed over the rockable shaft, an arm carried by the rockable shaft and disposed adjacent the operating lever, a bracket carried by the operating lever and disposed beneath the arm of the rockable shaft and so positioned that when the operating lever is moved upwardly it will engage the arm of the rockable shaft and force the same upwardly to a substantially vertical position, an arm carried by the rockable shaft and so positioned thereon that when the operating lever reaches its lower position the arm carried thereby will engage the same, and cause the rockable shaft to rock in reverse direction.

1,417,281. SWIVEL FOR WATCH CHAINS AND THE LIKE. EDWIN L. ROBINSON, Providence, R. I., assignor of one-half to Henry J. Spooner, Providence, R. I. Filed Mar. 23, 1921. Serial No. 454,949. 4 Claims. (Cl. 24—240.)

3. In a swivel for watch chains and the like having a hollow body closed at one end and open at the opposite

end, a ring rotatably mounted on said closed end, a cap immovably secured upon and closing said open end and provided near one side of its face with a perforation, a two-arm spring vertically disposed within said hollow body, the combination with said parts of a hook member consisting of a loop member secured at one end to the face of said cap in alinement with said perforation,

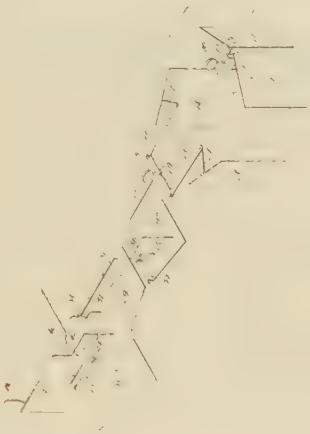
and a latch member provided in one edge with a laterally directed notch arranged and adapted on the insertion of asid latch through said perforation to engage said cap to thereby hold said latch in operative position fulcrumed on said cap for oscillating movements of said latch, and means for operatively connecting said latch member with one arm of said spring.

1,417,282. MILK-BOTTLE COVER. JOHN SENIO, Southington, Conn. Filed May 2, 1921. Serial No. 466,054. 4 Claims. (Cl. 215—51.)

1. A milk bottle cover comprising a resilient clip adapted to partially encircle the neck of the bottle, a resilient member projecting from said clip between the ends thereof and having its end adapted to extend over the lip of the bottle and press downwardly by its resiliency thereon, and a cover element hinged to said member.

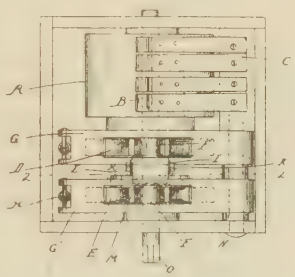
1,417,283. EYE-TESTING APPARATUS AND PROCESS. CLARK SLOAN, East Cleveland, Ohio. Filed Aug. 10, 1918. Serial No. 249,264. 13 Claims. (Cl. 88—20.)

13. In an instrument of the character described, the combination of a supporting casing having a pair of convergent partitions forming therebetween a narrow slit for application to the eyes of an observer, and means within said casing and adjustably supported therefrom for simultaneously obscuring opposite portions of the retinal fields



of the eyes of such observer, thereby to produce an intermediate band or zone of obscuration.

1,417,284. SNAP DRUM SWITCH. CURTISS F. SMITH, Detroit, Mich. Filed Feb. 21, 1921. Serial No. 446,811. 5 Claims. (Cl. 200—17.)

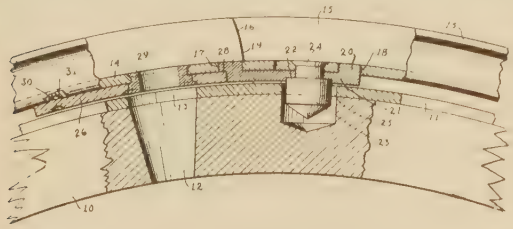


1. In an electric switch, the combination with a rotatable member having a plurality of electrical contacts mounted thereon, of a pair of star wheels, one having a positive driving engagement with said member and the other having a limited relative movement thereto, yieldable dogs for engagement with the respective star wheels, a lost-motion positive drive connection from one star wheel to the other, permitting a movement of the actuating member before positively communicating said movement to the actuated member, and a resilient torque connection between said star wheels placed under tension by the initial movement of the actuating member.

1,417,285. RIM. DAN C. SWANDER, Cleveland, Ohio, assignor to The Standard Parts Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 22, 1918. Serial No. 246,038. Renewed Oct. 24, 1921. Serial No. 510,102. 2 Claims. (Cl. 301—30.)

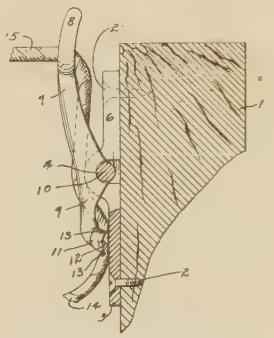
2. A transplit vehicle rim having perforations in its opposite ends, a latch plate having tongues projecting into said perforations and a recess in its inner side, a rivet seated in said recess and securing said plate rigidly to one end of the rim and projecting inwardly from said

plate to constitute a driver for the rim, and a locking lever pivoted on the opposite side of the split from said



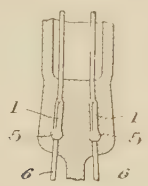
rivet and adapted to swing into and out of locking engagement with said plate and a hollow pivot for said lever adapted to receive the valve stem of a tire.

1,417,286. FASTENER. PAUL WERNER, St. Louis, Mo. Filed Dec. 15, 1919. Serial No. 345,071. 2 Claims. (Cl. 24—133.)



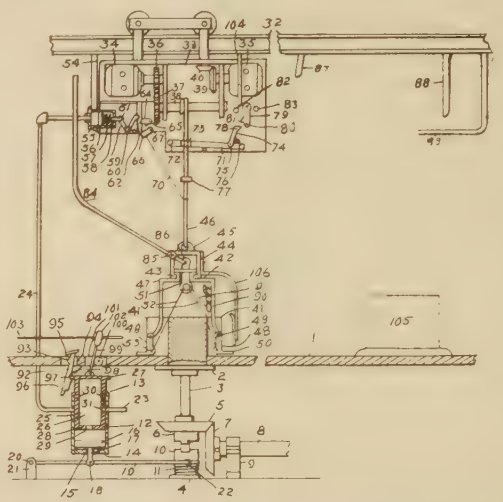
1. A line clamp comprising a plate adapted for connection with a fixture, a tongue mounted for pivotal movement on the plate, that portion of the tongue above the pivot being formed to provide a rope receiving yoke, that portion of the tongue below the pivot being provided with a laterally extending gripping member formed on the surface next the plate with a concavity to present upper and lower biting edges arranged in a plane vertical of the tongue at an incline to the surface of the plate, said biting edges curving upwardly from their respective ends toward their centers, whereby said biting edges will engage the line with unequal holding effects and their curved formation tends to direct the line toward the longitudinal centers of said edges.

1,417,287. COPPER CONDUCTOR FOR ELECTRIC-LAMP BULBS AND OTHER VACUUM TUBES. TEIZO YANAI, Tokyo, Japan, assignor to Nihon Denki Kogijo Kabushiki Kaisha, Tokyo, Japan. Filed May 29, 1918. Serial No. 237,183. 1 Claim. (Cl. 176—36.)



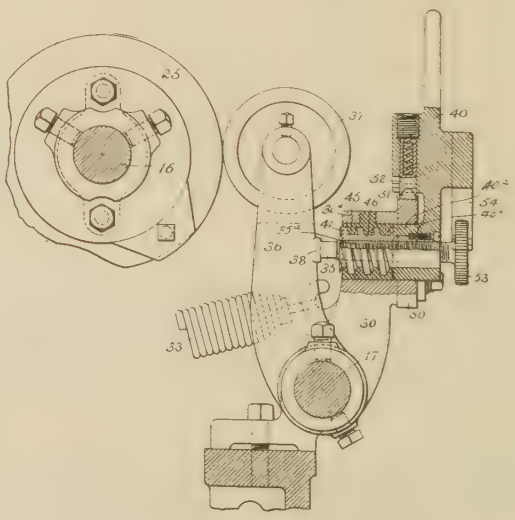
A leading-in conductor for vacuum containers comprising a single length of material having a slit tube formed integral therewith at one end thereof, the longitudinal edges of said tube overlapping, and a wire closing the open end of the tube.

1,417,288. WIRE-COIL CONVEYER. SAMUEL ZOPPELT and JOHN ZOPPELT, Monaca, Pa. Filed Feb. 24, 1921. Serial No. 447,614. 2 Claims. (Cl. 242—79.)



2. An apparatus for the purpose set forth comprising a carrier on which the wire is coiled, means for revolving the carrier to coil the wire, a clutching mechanism for connecting said means with a prime mover therefor, a cylinder provided with a piston head connected with said clutching mechanism for shifting the latter to disconnect said means from the prime mover, means for supplying fluid pressure to said cylinder, a hollow plunger operating in said cylinder and controlling the supply of fluid pressure thereto, and a suspension element for suspending said plunger from the wire during the coiling operation and including means whereby said plunger is shifted if the wire is defective to cause the supply of pressure against said head to discontinue the operation of the means for revolving the carrier.

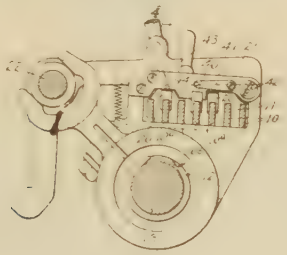
1,417,289. LOOP-REGULATING MECHANISM FOR KNITTING MACHINES. MELCHIOR ZWICKY, Wyomissing, Pa., assignor to Textile Machine Works, Wyomissing, Pa., a Corporation of Pennsylvania. Filed Oct. 17, 1919. Serial No. 331,430. 2 Claims. (Cl. 66—28.)



1. In a full fashioned knitting machine, the combination with a loop regulating mechanism comprising a spring-retracted needle-bar presser lever, an operating cam shaft

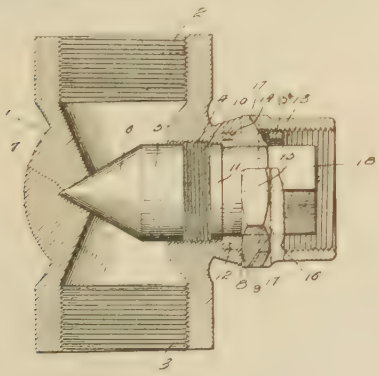
therefor, and a loop-regulating shaft having lever-stop arms fixed thereto and a cam-operated contact arm loosely mounted thereon; of a rocking arm fixed to said loop-regulating shaft, a contact-setting lever having a hollow hub portion screw-threaded in said rocking arm and an axial contact-pin screw threaded in said hub portion, and means for locking said hubbed lever in different screw-adjusted positions to determinedly project the separately adjustable contact pin.

1,417,290. SELVAGE-REENFORCING ATTACHMENT FOR FULL-FASHIONED KNITTING MACHINES. MELCHIOR ZWICKY, Wyomissing, Pa., assignor to Textile Machine Works, Wyomissing, Pa., a Corporation of Pennsylvania. Filed Jan. 20, 1920. Serial No. 352,798. 1 Claim. (Cl. 66—12.)



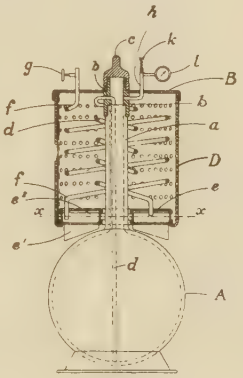
In a full fashioned knitting machine having a carrier rod stop screw, thread carrier rods certain of which carry selvage threads and are provided with stop dogs, and others of which carry plating threads only and are provided with differently located dogs, and a plating nut on said screw carrying both a plating rod stop member and a separate selvage rod stop member, said members being arranged to swing independently into and out of dog-contacting position.

1,417,291. VALVE. JACKSON M. ALLEN, Grove City, Pa. Filed Oct. 20, 1920. Serial No. 418,278. 1 Claim. (Cl. 251—49.)



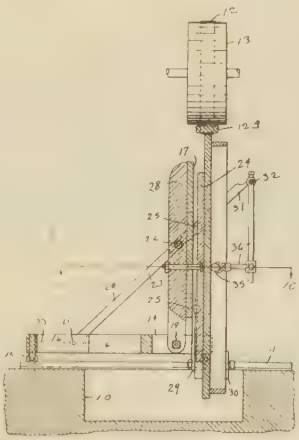
In a valve of the class described, a threaded casing, a cone valve threaded and seated in said casing, a shoulder formed on said valve continuous with the threaded portion thereof, a screw threaded boss formed on said casing, a hollow closure member screw threaded to said boss, said closure and valve being spaced to provide a clearance for the shoulder within the boss, said closure member forming an abutment for the shoulder to prevent the valve from being forced outwardly by internal pressure within the casing, a polygonal raised portion on said closure adapted to abut said boss, and a drainage passage and opening therefor machined in said raised portion for the discharge of moisture or leakage in the valve.

1,417,292. VAPORIZER FOR LIQUEFIED GASES. EWART SIGMUND ANDREWS, Beckenham, England. Filed Aug. 21, 1920. Serial No. 405,158. 8 Claims. (Cl. 62—92.)



1. In a vaporizer attachment for a liquefied gas container having an elongated neck, the combination of a siphon tube passing into the liquefied gas container down the neck, a boiler into which said tube leads, a tube leading out of said boiler at a point remote from the inlet thereto, a throttle valve attached to said tube and means for detachably securing said attachment to the neck of the container.

1,417,293. SANDING MACHINE. VINCENZO AVOLIO and FERDINANDO LATTANZI, Portland, Oreg. Filed Apr. 27, 1921. Serial No. 464,865. 3 Claims. (Cl. 51—145.)

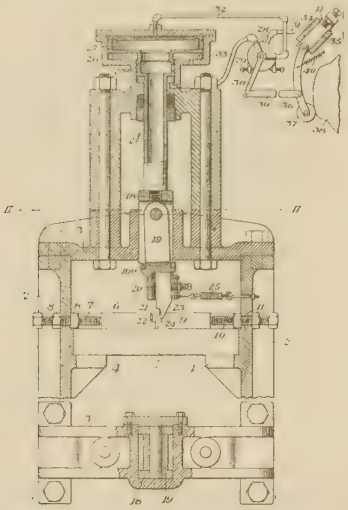


1. In a sanding machine, the combination of a sanding belt with a track under and at right angles to said belt, a carriage on said track, a tiltable turn-table mounted on said carriage, a pair of adjustable rolls on said carriage adapted to support a circular object concentrically with and alongside of said turntable, and a clamping means for holding said circular object against the turntable.

1,417,294. GRIPPING DEVICE. LAURENCE J. BERKELEY, Racine, Wis., assignor to Hercules Manufacturing Company, Racine, Wis., a Corporation of Wisconsin. Filed Aug. 12, 1920. Serial No. 403,102. 12 Claims. (Cl. 10—11.)

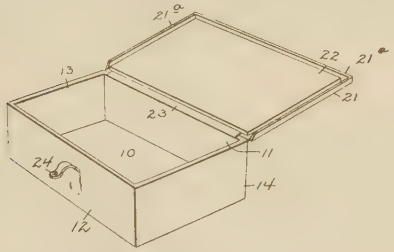
1. A device of the character described, comprising a plurality of gripping dies, an operable forging die cooperat-

ing therewith, fluid pressure actuated means for moving one of the gripping dies relative to the other, and means



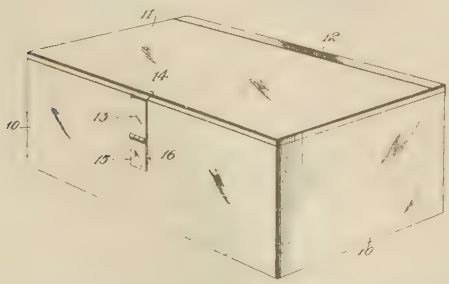
controlling said fluid pressure actuated means in timed relation to the operation of the forging die, substantially as described.

1,417,295. BOX AND METHOD OF MAKING THE SAME. LOUIS BINDER, Newark, N. J. Filed May 18, 1920. Serial No. 382,212. 2 Claims. (Cl. 217—2.)



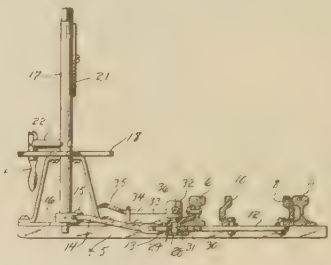
1. A box made of thick cardboard and having its bottom, sides and ends formed of one piece, the bottom being inset between the sides, and the ends being inset between the sides and resting on the bottom.

1,417,296. BOX FASTENING. LOUIS BINDER, Newark, N. J. Filed Feb. 23, 1921. Serial No. 447,181. 4 Claims. (Cl. 229—47.)



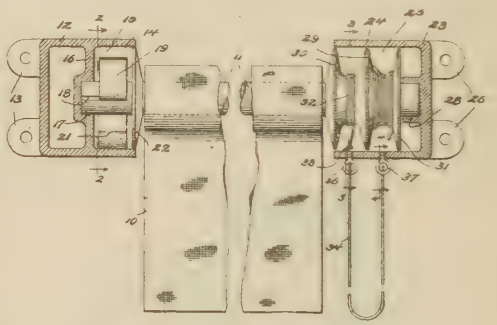
1. The combination of a box having a lid, with a fastening comprising a swinging plate with a lip at the end so disposed that when the plate rests against the side of the box the lip rests in a slit in the lid.

1,417,297. RAILWAY SAFETY SWITCH. ISAAC M. BRITTAIN, Denver, Colo., assignor of one-half to George W. Allan, Denver, Colo. Filed Feb. 20, 1922. Serial No. 537,949. 5 Claims. (Cl. 246—448.)



1. In locking devices for railway switches providing a switch point head bar that projects laterally beyond the track and means for actuating the same in reverse directions, the combination of a retaining block suitably formed for snug attachment to a fixed rail of the track in direct operative association with the projecting end of said head bar, and coacting means between said retaining block and the projecting end of said head bar which is set, upon starting to throw the switch in either direction, and automatically operates to immediately lock said head bar at the end of each reverse actuation thereof.

1,417,298. WINDOW-SHADE ROLLER. ELLIS R. BROCK, Athens, Ga. Filed June 18, 1920. Serial No. 389,950. 3 Claims. (Cl. 156—28.)

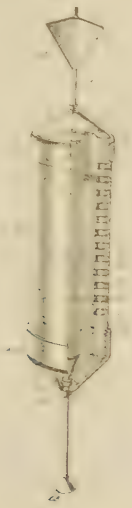


2. A shade roller and support comprising three easily detachable parts including two end sockets of similar size and shape adapted to be secured in place on the window frame and each having a cylindrical chamber open at one end facing each other and a smaller central cylindrical bearing socket within and removed from the open ends of said chambers, a shade roller having ends adapted to longitudinally enter and turn in said bearing sockets, and circular flanges on said shaft so positioned as to substantially close and turn in the open ends of said cylindrical chambers.

1,417,299. AERIAL BOMB. THOMAS J. CAHILL, Philadelphia, Pa. Filed May 8, 1920. Serial No. 379,846. 1 Claim. (Cl. 102—29.)

In an aerial bomb, a hollow cylindrical wooden body portion having a plurality of radially extending bores communicating with its interior and terminating short of its outer periphery, whereby to provide an integral frangible exterior shell, metal bushings in the bores, projectiles located entirely within the bushings, pads within the

bushings covering the inner and outer ends of the projectiles, and the interior of said body adapted to receive



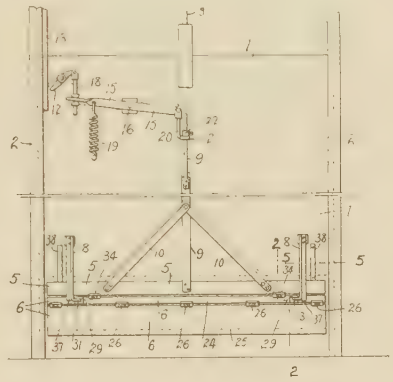
a common charge for projecting said projectiles radially through the frangible walls of the body upon explosion of the charge.

1,417,300. DRIVING MECHANISM FOR LAUNDRY MACHINES. FORREST J. COUCH, Rochester, N. Y., assignor to Clark, Cadle, Harmon Corporation, Rochester, N. Y., a Corporation of New York. Filed July 11, 1919. Serial No. 310,071. 11 Claims. (Cl. 74—50.)

1. A support, driving and driven elements thereon, gearing connecting said elements including a clutch for disengaging the driving and driven elements and reversing the motion of the driven element, means for intermittently and automatically operating said clutch to reverse said driven element, and manually operable means for disabling said automatic means and disengaging the clutch including automatic mechanism for preventing overtravel of the clutch in such disengaging movement and for positively locking it in disengaged position.

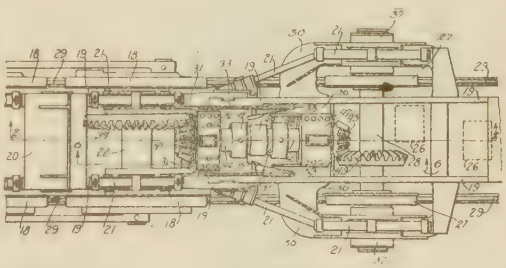
1,417,301. SAFETY DEVICE FOR DOORS. ANTHONY L. CRESCI, Vineland, N. J. Filed Aug. 17, 1920. Serial No. 404,245. 9 Claims. (Cl. 20—19.)

2. A sliding door, a stationary member located adjacent to the path of the door, locking mechanism movable with the door adapted to engage said stationary member and hold the door against forward closing movement, a movable member slidably mounted upon the door, connecting means between the movable member and the locking mechanism, a guard strip adapted to project beyond the forward edge of the door, bearing members secured



upon the door upon which said guard strip is fulcrumed upon an axis extending parallel with the forward edge of the door, and mechanism associated with the guard strip for communicating motion to the said movable member when the guard strip is swung upon said axis for operating the locking mechanism.

1,417,302. BOOSTER APPLIANCE FOR LOCOMOTIVES AND OTHER AUTOMOTIVE MACHINES. FRANK V. DE ARMOND, Topeka, Kans. Filed June 18, 1921. Serial No. 478,732. 6 Claims. (Cl. 105—117.)

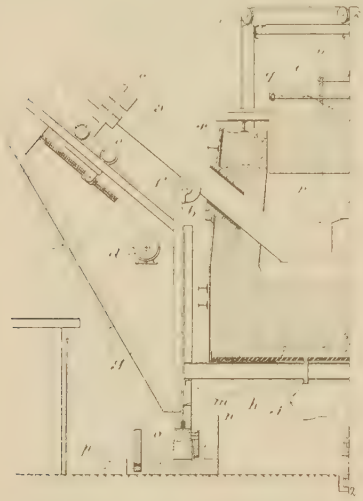


1. The combination with a locomotive embodying axle-united driving wheels, spaced bearings for the axle, a journal box carried by the bearings, a shaft journaled in the box, a pinion carried by the shaft, a gear between the spaced bearings carried by the axle and intermeshing with he pinion. a bogy attached to a pivot rigid with the journal box, truck wheels journaled in the bogy and means to transmit motion from the shaft to the truck wheels.

1,417,303. ELECTRIC FURNACE. HECTOR DE NOLLY, Lyon, France, assignor to La Societe Metallurgique du Frayol, Lyon, France. Filed Apr. 8, 1920. Serial No. 372,176. 3 Claims. (Cl. 204—64.)

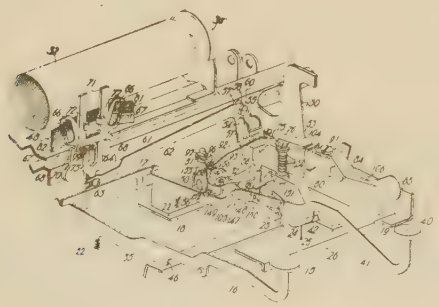
1. An electric furnace comprising a body of refractory material open at its upper part, a block of graphite vertically movable in said open upper part and fitting therein so as to form a vaulting and forming with said body the reduction chamber of the furnace, means for effecting the movement of said block, inclined movable electrodes passing through the side walls of said body, means for imparting movement to said electrodes, a polar plate at the bottom of said reduction chamber, lateral

polar plates mounted in parallel with said bottom polar plate and extending into said reduction chamber, means for conveying electric current to said polar plates and



to said electrodes, means supporting said body and means whereby said body can be rocked upon said supporting means.

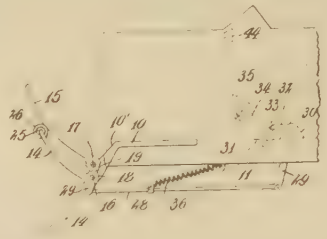
1,417,304. TYPEWRITING MACHINE. WILLIAM A. DOBSON, Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 13, 1920. Serial No. 373,618. 9 Claims. (Cl. 197—83.)



1. In a typewriting machine; type and key-levers therefor; a ribbon-vibrator to be operated from each of a plurality of type-keys; a universal bar for such plurality of keys; a lever actuated by the universal bar; another lever for actuating the ribbon-vibrator; a link connecting said last two levers, said link having a sliding bearing in one of said levers and a shoulder for engagement therewith, whereby the link may be moved by the universal bar and, through said shoulder, may actuate the ribbon-vibrator lever in one direction, the sliding bearing permitting movement of the ribbon-vibrator-actuating lever independently of the universal bar; and a separate key-lever ineffective on said universal bar but effective on the second-mentioned lever so as to actuate the latter without effecting longitudinal movement of said link.

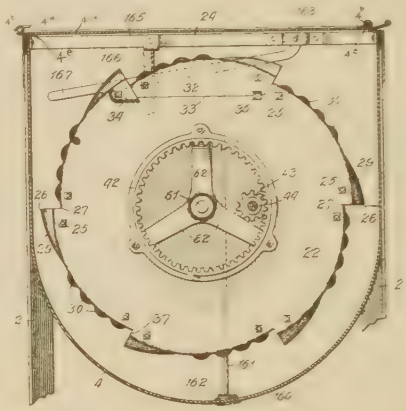
1,417,305. AUTOMOBILE SAFETY DEVICE. MARIA DOUJAK, New York, N. Y. Filed Feb. 13, 1922. Serial No. 536,183. 4 Claims. (Cl. 293—45.)

3. In combination with a motor vehicle, hinged fender and back elements, meshing gear segments causing said fender and back elements to move oppositely in unison, a link connected at one end to said fender element, a lever to which the other end of said link is connected, a finger projecting from said lever, and a foot pedal having a detent shoulder engaging said lever, and a spring con-



nected to said link and urging the fender to lowered position.

1,417,306. WASHING MACHINE. ALBERT J. DREMEL, Newton, Iowa, assignor to The Maytag Company, Newton, Iowa, a Corporation of Iowa. Filed Feb. 11, 1918. Serial No. 216,436. 6 Claims. (Cl. 68—18.)



1. In a washing machine a washing plate having its front edge in the form of a scoop, ribs in said scoop extending at right angles to and rearwardly from said front edge teeth adjacent said front edge, and the portion of said plate in the rear of said scoop being corrugated in a direction at right angles to said ribs.

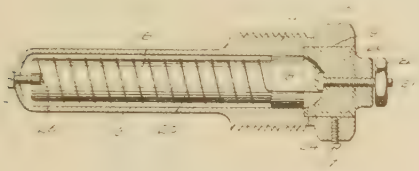
4. In a washing machine, a tank, a lid on said tank, and means operable upon the opening of said lid for automatically removing excess moisture therefrom.

1,417,307. CONNECTING ROD. JOHN R. DU PRIEST, Baltimore, Md. Filed Oct. 8, 1920. Serial No. 415,578. 5 Claims. (Cl. 64—55.)

1. The combination of a rod; a yoke mounted to slide longitudinally thereon; bearing members mounted in said

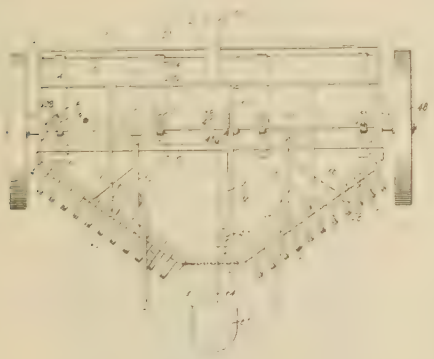
yoke and adjustable by the relative movement of said rod and yoke; and a member differentially threaded to said rod and said yoke and rotatable to adjust the same.

1,417,308. EXPLOSIVE-ENGINE ATTACHMENT. JOHN T. ELLIS and ORA A. KERN, Nashville, Tenn. Filed Apr. 14, 1921. Serial No. 461,354. 2 Claims. (Cl. 219—38.)



1. An attachment of the class described comprising a cylindrical metal shell closed at its inner end and adapted to be removably inserted into the manifold of an engine, a core of insulating material disposed within said shell and spaced concentrically of the bore thereof, a coil of resistance wire wound on said core, a screw threaded inwardly of the closed end of said shell and engaging the inner end of said core to space the same concentrically thereof, said screw acting to secure the inner terminal of said coil and to ground the same to said shell, and an insulated binding post carried at the outer end of said shell and having connection with the other terminal of said coil.

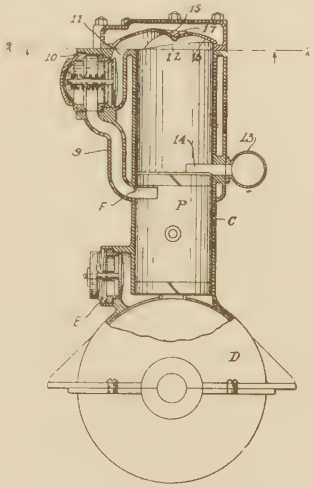
1,417,309. BEET AND VEGETABLE HARVESTER. CHARLES M. EWING and HERBERT N. BRYAN, Deweyville, Ohio. Filed Aug. 10, 1920. Serial No. 402,524. 7 Claims. (Cl. 55—9.)



1. In an apparatus for harvesting vegetables, a frame element, means for transporting said frame element over the ground, a plurality of beams supported by said frame element and provided with shovels adapted to dig vegetables in a plurality of rows from the ground as said frame element is moved, and two independently and pivotally mounted means carried by the frame element for gathering said vegetables from said plurality of rows and depositing said vegetables in a single row as said frame element is moved.

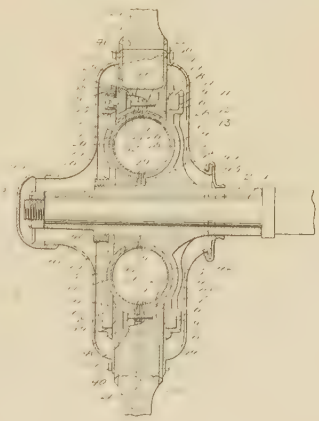
1,417,310. SCAVENGING SYSTEM FOR INTERNAL-COMBUSTION ENGINES. WILLIAM H. FAUBER, Brooklyn, N. Y. Filed Nov. 7, 1916, Serial No. 129,932. Renewed Oct. 25, 1921. Serial No. 510,289. 15 Claims. (Cl. 123—65.)

1. In an internal combustion engine, the combination with a cylinder, having a piston working therein, there being a fluid intake and a fluid outlet to said cylinder,



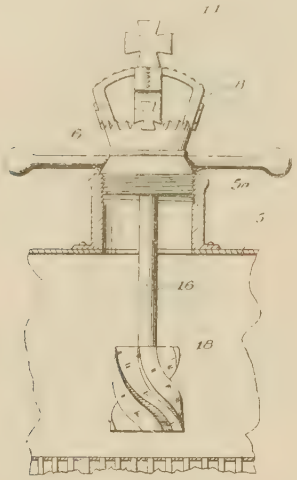
and a concavo-convex deflector forming a continuation of said intake and having a central diminished terminal.

1,417,311. PNEUMATIC OR CUSHION VEHICLE WHEEL. HENRY L. FLESHER, Riley, Ind. Filed May 10, 1917. Serial No. 167,772. 3 Claims. (Cl. 152—41.)



3. A vehicle wheel comprising a hub, a flange secured to the hub, another flange adjustable on the hub, a rim located between the flanges, said rim having on one side an annular hollowed part provided with a shoulder, a cushioning device interposed between the flanges, the rim, and the hub and bearing against said shoulder on the rim, an annular clamping ring located within the hollowed part aforesaid, said clamping ring having a concaved annular part bearing on the cushioning device and a flat part secured to the shoulder on the rim and holding the cushioning device against said shoulder, there being provided an annular groove, a portion of which is provided in the outer face of the clamping ring and the remainder in the rim, a detachable wear plate seated in the groove thus provided, an annular wear plate at the opposite side of the rim, and antifriction bearings carried by the flanges and bearing on the wear plates, and means for holding the adjustable flange on the hub.

1,417,312. RADIATOR ATTACHMENT. FRANK GADE, Chicago, Ill. Filed Nov. 21, 1921. Serial No. 516,760. 5 Claims. (Cl. 116—118.)

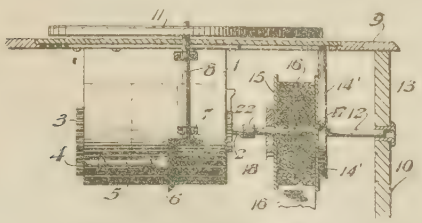


3. A water-level indicator comprising a support, a tubular shaft rotatably and slidably carried by the support, an indicator, a tubular shaft carrying the indicator, and provided with longitudinal slots, a cross pin carried by the first-mentioned shaft, said shaft slidably fitting the second-mentioned shaft, and the cross pin seating in the aforesaid slot, and a float carried by the first-mentioned shaft and having an impeller shape.

1,417,313. FILM REEL. WILLIAM F. GAMMETER, Cadiz, Ohio. Filed July 12, 1921. Serial No. 484,232. 4 Claims. (Cl. 242—70.)

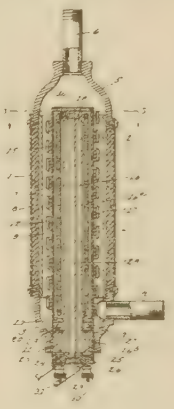
2. A film reel comprising side plates, a hub disposed between and abutting the side plates at the centers thereof and consisting of an inner cylindrical shell having internal ribs stamped therein, outer arcuate plates secured at their ends to the ends of the said shell and bridging the outer sides of said internal ribs, and fastening devices housed between the said ribs and the said arcuate plates and having their ends secured in the side plates.

1,417,314. WINDING DEVICE FOR MOTORS OF TALKING AND OTHER MACHINES. CHARLES J. GOODMAN, Philadelphia, Pa. Filed Aug. 28, 1920. Serial No. 406,557. 2 Claims. (Cl. 185—39.)



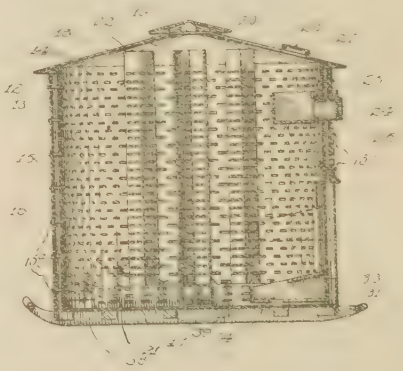
1. In a spring motor of a character stated, a winding shaft for said motor, a toothed wheel on said shaft connected stationarily therewith, a flexible member, a carrier for the latter mounted freely on said shaft adapted to have said flexible member wound thereon and rewound therefrom, a pawl-like member on said carrier adapted to engage the teeth of said wheel and interlock said carrier with said shaft in one direction of rotation of the latter, and an auxiliary spring at one side of and attached to said carrier and connected with a casing and with said carrier whereby when said flexible member is unwound said auxiliary spring is adapted to cause automatically the rewinding of said flexible member.

1,417,315. ELECTRIC WATER HEATER. WALTER W. GRAFF, Cleveland, Ohio. Filed July 6, 1921. Serial No. 482,758. 4 Claims. (Cl. 219—39.)



1. A heater comprising a casing, a tube within the same, a heating element inside the tube, and a water pipe between the casing and the tube, having a plurality of spray holes directed toward the tube.

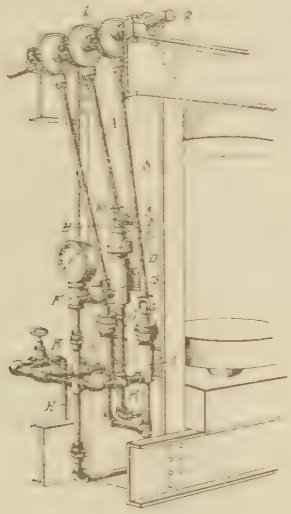
1,417,316. DRYING GRAIN BIN. JAMES F. GREEN, Jarbalo, Kans., assignor of one-half to B. F. Samuels, Leavenworth, Kans. Filed Sept. 28, 1916. Serial No. 122,638. 3 Claims. (Cl. 98—26.)



3. In a drying grain bin, a portable base, a flat bottom resting on said base, a cylindrical shaped perforated shell rising from said bottom, a roof resting on said shell and extending outwardly therefrom, a weather proof opening in said roof, upper and side walls crossing said shell and resting on said bottom and forming laterally disposed rectangular shaped pipes along said bottom, the said bottom forming the bottom wall of said pipes, said pipes opening outwardly through said shell, the side and upper walls of said rectangular pipes perforated, perforated pipes rising from said rectangular shaped pipes and extending above said cylindrical shaped perforated shell and presenting open ends underneath and adjacent said roof,

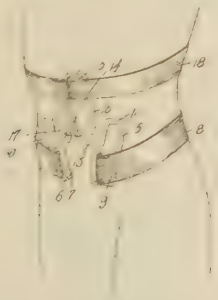
an outer shell encircling said perforated shell and extending upward to near said roof and forming an opening between said roof and the upper end of said shell, and said outer shell extending downwardly below said bottom and forming an opening at the bottom thereof and weatherproofing said rectangular pipes so that air can enter said pipes from the bottom or top of said outer shell and rain cannot enter said pipes.

1,417,317. QUICK-LIFT PUMP. MORTIMER N. GRIFFIN and RUGAR E. GEORGE, Rome, Ga. Filed June 26, 1919. Serial No. 306,905. 5 Claims. (Cl. 138—17.)



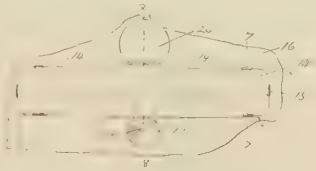
1. In a hydraulic press, the combination with high pressure pumps, of an auxiliary pump comprising an inner and outer plunger having a spring interposed therebetween, and a barrel to the bore of which the outer plunger is fitted, a stop for the outer plunger, a check-valve, and pipe lines for the several pumps.

1,417,318. MEDICAL APPLIANCE. LEON ADOLPHUS HALL, Keene, N. H. Filed Aug. 13, 1920. Serial No. 403,221. 2 Claims. (Cl. 128—100.)



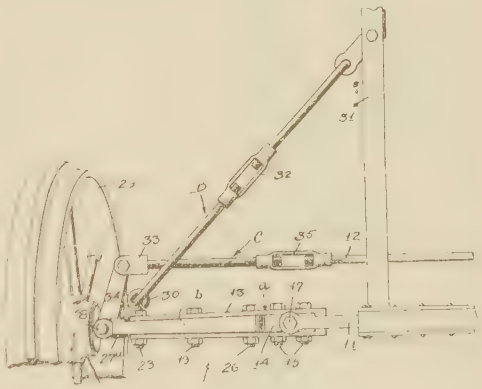
1. A medical appliance for relieving constipation, said appliance being adapted to lie against and exert pressure against the intestinal cavity, said appliance including a pair of loop portions, a curved outwardly extending portion forming a continuation of each of said loop portions, and inwardly, downwardly and horizontally extending portions forming a continuation of each of said curved portions, a substantially vertical extending portion forming a continuation of said latter portion, a downwardly extending portion forming a continuation of each of said vertically extending portions, a horizontal portion extending between and connecting the lower ends of each of said downwardly extending portions, and means connected to said loop portions, and said vertically extending portions for retaining said appliance in intimate contact with the body to which it is applied.

1,417,319. CARD HOLDER. FRED HASKEL, Detroit, Mich. Filed Feb. 5, 1921. Serial No. 442,694. 5 Claims. (Cl. 40—11.)



3. The combination with a base, of a card holder having a body provided with a securing portion, a neck extending transversely thereto and arranged at one side of said securing portion, a clamping portion for engaging the card connected to said neck portion, and a thumb portion extending transversely from the body portion on the side thereof opposite said neck portion, the outer end of said thumb portion being spaced from the base whereby upon movement of said thumb portion toward said base the neck portion and the clamping portion will be flexed outwardly from said base to release the card.

1,417,320. EXTENSION STEERING DEVICE. OSCAR MILTON HATCHER and JAMES CHAPMAN CAMPBELL, Mankato, Minn. Filed May 31, 1921. Serial No. 473,725. 5 Claims. (Cl. 280—961.)

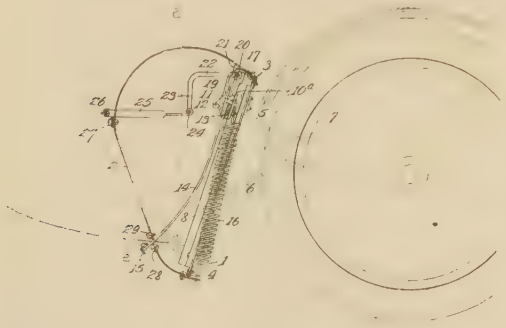


1. In a device of the class described, a knuckle extension member including a reach and an auxiliary axle pivoted thereon, said reach comprising a pair of plates, between which said auxiliary axle is positioned, and a block between said plates, said block being designed to fit within the knuckle bosses of a tractor axle and to receive a securing bolt passing through said bosses, means for bracing the extension member laterally, said auxiliary axle being supplied at its outer end with a knuckle designed to receive the spindle body of a tractor steering wheel and support said wheel in inwardly dished relation, means for securing the auxiliary axle in vertically adjusted positions within the reach and an adjustable tie-rod extension for connecting the extended steering wheel with the tractor tie-rod.

1,417,321. VEHICLE FENDER. WILLIAM H. HINK, Wheeling, W. Va., assignor of one-half to J. P. Morningstar, Wheeling, W. Va. Filed Feb. 25, 1922. Serial No. 539,118. 5 Claims. (Cl. 293—37.)

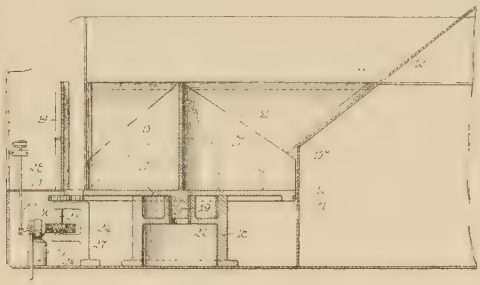
1. In a vehicle fender, a main frame embodying a plurality of approximately vertical guide-members, slide-blocks movable on said guide-members, a carrier frame having pivoted link connection with said slide-blocks, coil springs tending to hold said carrier frame in a lowered

substantially horizontal position, means normally holding said carrier frame in an elevated substantially vertical



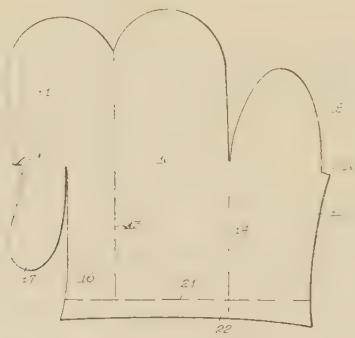
position against the tension of said springs, and a buffer whereby said holding means may be shifted for releasing said carrier frame.

1,417,322. LOCOMOTIVE TENDER. FRANCIS HOGG, Pittsburgh, Pa., assignor to Locomotive Stoker Company, a Corporation of Pennsylvania. Filed Dec. 9, 1921. Serial No. 521,146. 6 Claims. (Cl. 105—232.)



1. A tender for locomotives having a fuel bin, and a rotatable element within the bin, and having upstanding radial partitions forming an annular series of compartments.

1,417,323. MITTEN. MICHAEL J. HOLLENBECK, Gloversville, N. Y. Filed Oct. 7, 1920. Serial No. 415,260. 4 Claims. (Cl. 2—102.)

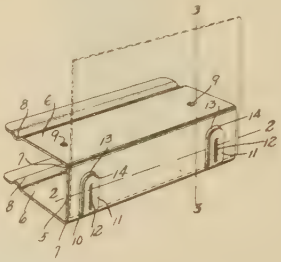


1. A one-piece mitten, comprising a back, a front, a thumb made in two parts, one of the thumb parts having an integral shoulder at the outer edge of its base and the other thumb part having an integral shoulder at the inner edge of its base, and a continuous row of stitches connecting the back with the front and connecting the edges of the thumb parts with each other, the shoulders of the thumb parts being fastened by the stitches to the corresponding edges of the front and back to provide an enlarged base for the thumb.

1,417,324. METHOD OF FORMING HELICALLY-CONVOLUTED TUBES. BRADFORD B. HOLMES, Bellingham, Wash. Filed Aug. 20, 1919. Serial No. 318,841. 7 Claims. (Cl. 153—72.)

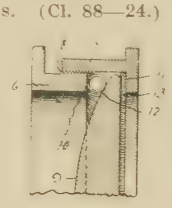
1. A method of forming helically corrugated tubes which consists in taking a cylindrical tube, starting crest and trough flexures along helical lines, and gradually increasing said flexures by the use of helically ribbed forming rolls whose lead decreases and whose depth increases as the forming operation progresses, one of said rolls acting against the internal face of said tube and the other against the external face thereof.

1,417,325. TICKET HOLDER. HERMANN HOPP and LEO HOPP, New York, N. Y. Filed Jan. 14, 1922. Serial No. 529,163. 1 Claim. (Cl. 40—11.)



As an article of manufacture, a ticket holder adapted for attachment to the edge of shelves and comprising a substantially U-shaped member, the leg portions of which are adapted to receive the shelf therebetween, one of said leg portions having perforations provided therein for the reception of fastening means, an inwardly disposed integral bead formed on each of the leg members, a plurality of retaining clips formed in the base of the U-shaped member by cutting the said base and forcing the clips therefrom, and an inwardly disposed depressed portion formed on each of said clips, the protuberance formed on each of said depressed portions lying within the confines of the opening resulting from the formation of its respective clip.

1,417,326. LENS MOUNTING. AXEL T. JACOBSSON, Cleveland, Ohio. Filed Jan. 18, 1921. Serial No. 438,098. 2 Claims. (Cl. 88—24.)

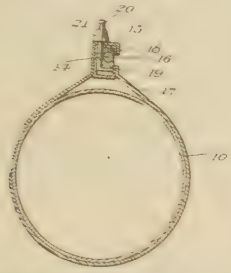


1. The combination with an optical lens having a convex face, of a mounting comprising inner and outer rings screwed together, and a coiled spring packing confined between the inner end of the inner ring and the convex face of the lens.

1,417,327. SUPPORT FOR OIL CANS. GORDON B. JONES, Wilson, N. C. Filed June 13, 1921. Serial No. 477,187. 2 Claims. (Cl. 248—30.)

2. The combination with the radiator brace rod of an automobile, of a container, a longitudinally slotted sleeve carried by the container for receiving the brace rod, a

clamping bar located within the sleeve and means extending through the sleeve and connected to the clamping



bar for adjusting the latter to removably secure the container to the brace rod.

1,417,328. PHOTOGRAPH POSITIVE AND NEGATIVE. ROBERT JOHN, New York, N. Y., assignor, by mesne assignments, to Daylight Film Corporation, a Corporation of New York. Filed May 6, 1916. Serial No. 95,957. 15 Claims. (Cl. 101—395.)

1. As an article of manufacture, a base having on its surface great numbers of naturally photographically formed, extremely minute, individual protuberances which are distributed and grouped irregularly so as to represent photographic lights and shades.

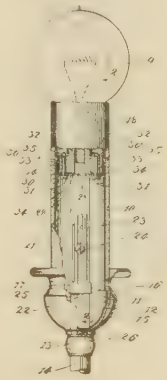
1,417,329. BUNDLING MACHINE. WALTER O. JONES, Lyons Platt, Ohio. Filed Apr. 10, 1920. Serial No. 372,757. 32 Claims. (Cl. 100—31.)

12. A bundling machine, comprising a compressor head formed of independent sections, a clamping lever pivotally carried by each of said sections, means for operating said sections and said clamping levers in unison throughout a portion of the stroke of the head and then operating said clamping levers independently of the head sections throughout the remainder of the stroke, substantially as described.

28. A bundling machine, comprising a compressor head, means for operating the same, a wire feeding mechanism, electrically controlled means for regulating the wire fed by said mechanism, a circuit for said electrically controlled means, and a plurality of switches in said circuit, one of said switches being operated by the wire, and the other of said switches by the operating mechanism for the compressor head, substantially as described.

1,417,330. ELECTRIC-CANDLE-LIGHTING FIXTURE. WALTER R. KAHNS, Brooklyn, N. Y., assignor to J. H. White Manufacturing Company, Brooklyn, N. Y., a Corporation of New York. Filed Apr. 20, 1921. Serial No. 462,789. 1 Claim. (Cl. 240—52.)

In an electric lighting fixture, the combination of a vertical cylinder, a lamp socket within the same, a cover of insulating material surrounding the socket shell and provided with openings in its opposite sides adjacent its lower end, a cup upon which the lower end of said cylinder rests, a shell surrounding said cup, a supporting arm having a threaded end extending through alined openings in the bottom of said shell and cup, a support for said socket comprising two members adjustably connected together, a threaded stud carried upon one end of one of said mem-



bers for connection with the threaded end of said arm, the free end of the other member being provided with a right angle extension, clips upon opposite sides of the socket each provided with a spur engaging the openings in said insulating cover, and screws for securing said clips and said extension to the socket.

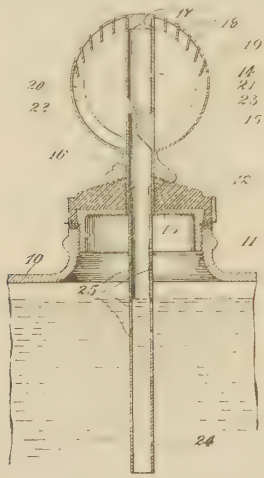
1,417,331. WELL-CASING RIPPER. JOHN ELMER KELLER, Independence, Kans. Filed Jan. 7, 1922. Serial No. 527,633. 1 Claim. (Cl. 81—193.)

The combination, in a well-casing ripper, of a block slotted so as to carry a knife or blade, a knife or blade hinged upon a pin and carrying a projection or vane, a pin, a means of holding the point of said knife or blade against the casing, a water-course or channel through said block, there being an orifice directing the flow of water against said vane or projection, a threaded recess in the top of said block, a hollow tube one end of which is threaded to screw into said recess and the other end of which is threaded to receive a collar, a collar to screw on said tube, and a second block threaded on one end to receive a drill-pipe coupling and having a hole through it longitudinally to receive said tube.

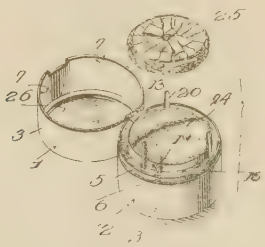
1,417,332. ALARM FOR AUTOMOBILE RADIATORS. KARL KELLER, Brooklyn, N. Y., assignor to J. H. White Manufacturing Company, Brooklyn, N. Y., a Corporation of New York. Filed May 29, 1920. Serial No. 385,130. 6 Claims. (Cl. 116—109.)

6. The combination with an automobile radiator having a filler opening and a cap therefor provided with a centrally disposed aperture, of a casing disposed above said cap and having an opening in register with the aperture

therein, a whistle located within the casing with its tubular stem passing through the opening therein and through the aperture in the cap, a vertical tube connected with the whistle and extending into the radiator a predetermined distance, whereby when steam is generated in the radiator after the water has reached a predetermined level, the whistle is automatically sounded, the escape of steam and water of condensation being retarded by said casing.

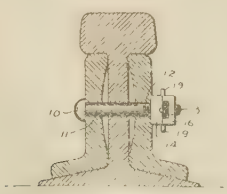


1,417,333. VANITY CASE. WILLIAM G. KENDALL, Newark, N. J. Filed July 22, 1918. Serial No. 246,213. 9 Claims. (Cl. 132—83.)



9. In an article of the class described, compartment members, one of said members having a rim to fit within the open side of the other member when the members are closed, a supporting plate positioned to lie within the rim when the compartment members are closed, means hingedly connecting the compartment members with each other and with the said supporting plate, and article retaining means upon each face of the supporting plate.

1,417,334. NUT LOCK. MATTHEW D. KIMBALL, Omaha, Nebr., assignor of one-half to David P. Feder, Omaha, Nebr. Filed June 30, 1921. Serial No. 481,524. 4 Claims. (Cl. 151—17.)

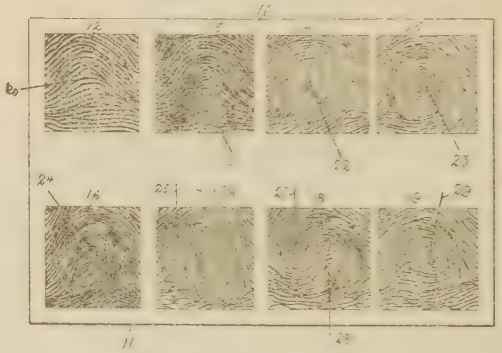


1. Nut locking means comprising, in combination, a bolt having a main threaded portion and a reduced oppositely-threaded extended portion, a main nut adapted to fit upon the main threaded portion of the bolt, a locknut adapted to fit upon the reduced extended portion of the bolt and to engage the adjacent end-face of the main nut, the adjoining faces of the main nut and locknut having registering Y-grooves therein, and a cotter-pin having a split end-portion entering the bifurcated portions of a pair of the registering Y-grooves.

1,417,335. TRACTOR HITCH. MADISON MONROE KNOWLES and JAMES NICHOLAS BATES, Fort Branch, Ind. Filed Aug. 10, 1921. Serial No. 491,162. 1 Claim. (Cl. 213—67.)

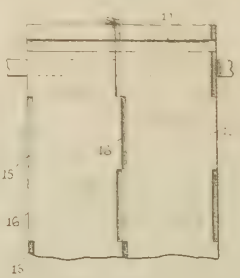
A hitch, comprising a pair of bars extending parallel to each other, one of said bars being provided with an opening at each end thereof, the other of said bars being provided with an opening in one end thereof, in register with one opening of the other bar, and a down-turned threaded end passing through a draft-fitting, and the other opening of the other bar, a bolt for said registered openings, and a screw nut for said down-turned end.

1,417,336. GAME. EUGENE H. LEDERER, State College, Pa. Filed Nov. 13, 1920. Serial No. 423,803. 2 Claims. (Cl. 46—41.)



1. A game apparatus comprising a body having thereon a plurality of representations of finger prints each containing a distinct characteristic feature, and a plurality of blank elements adapted to receive the finger prints of individual players to be compared with the characteristic finger prints on the body.

1,417,337. KNOCKDOWN BARREL. GEORGE A. LE FEVRE, Richmond Hill, N. Y., assignor to Baxflat Barrel & Crate Corporation, New York, N. Y., a Corporation of New York. Filed Aug. 14, 1920. Serial No. 403,468. 8 Claims. (Cl. 217—44.)



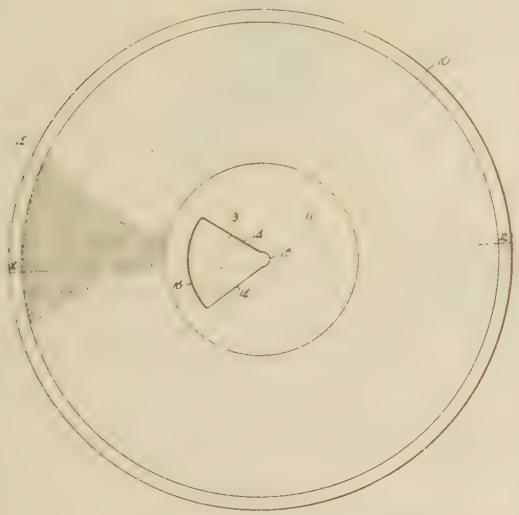
1. A knock-down barrel having essentially flat staves with meeting edges in substantial contact at all times at

the outer faces of the staves, and with transversely coacting complementary members at the inner corners of the staves which are out of engagement when the barrel is flat, but which engage when the barrel is set up in arc form to prevent endwise movement of the staves.

1,417,338. WRENCH. JOHN ELMER LENAHAN, Newburgh, N. Y. Filed Dec. 3, 1921. Several No. 519,680. 4 Claims. (Cl. 81—58.)

1. A wrench of the class described, comprising a handle terminating at one end in a jaw-carrying member with an elongated threaded stud projecting from one face thereof and provided with a circular series of sockets concentric with the stud and a nut threaded to be applied to the stud, and a jaw member for application to the threaded stud and to receive the nut entering the jaw member for a distance less than the thickness of said jaw member, whereby the handle member and the jaw member may be clamped together in adjusted positions.

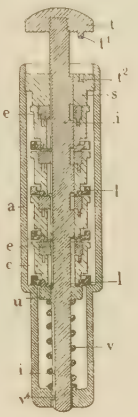
1,417,339. RECORD DISK. FRANK LENTON, New York, N. Y. Filed Mar. 9, 1921. Serial No. 451,063. 4 Claims. (Cl. 274—41.)



1. As a new article of manufacture, a sound reproducing record disk provided with an opening therethrough having a pin receiving portion at its inner end located at the center of the record disk and constituting means adapted for engagement with the centering pin of a graphophone turntable to effect the coincidence of the center of rotation of the record with the center of rotation of the graphophone turntable, the major portion of the opening serving as a means for visualizing the pin through the disk and facilitating the application of the disk to the turntable.

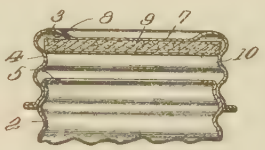
1,417,340. PERMUTATION LOCK FOR AUTOMOBILES. ANDRÉ PIERRE LITREM, Paris, France. Filed Nov. 28, 1919. Serial No. 340,992. 5 Claims. (Cl. 70—53.)

1. In a locking device for automobiles, a casing having an opening, a plurality of combination elements in the casing and provided with notches, a bolt extending through the elements and provided with studs for engaging the notches thereof, intermediate washers sepa-



rating the elements, means for preventing the washers from turning, and a spring secured to each intermediate washer for engaging with the corresponding element.

1,417,341. DOUBLE-SEAL SPRING CAP. JOHN FREDK. MCGARRAHAN, Congress Park, Ill., assignor to J. S. Giles & Sons, Chicago, Ill., a Corporation of Illinois. Filed Dec. 17, 1920. Serial No. 431,382. 2 Claims. (Cl. 220—46.)

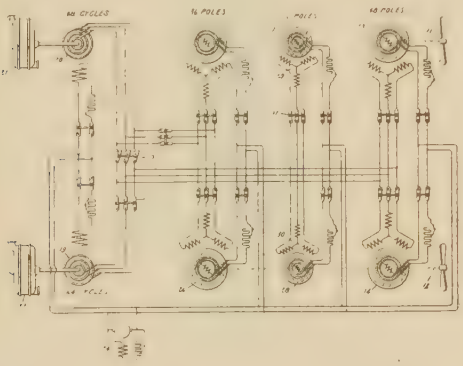


1. The combination with a metal container body having a relatively small top portion provided with an opening into the container body and having an inwardly extending flange surrounding said opening the inner free edge of which is unsupported; of a cap therefor having a depending portion extending down over the top portion, said cap and top portion having inter-engaging means whereby said cap is securely held on the container body, said cap having a central indented portion of less diameter than the opening into the container and an annular channel disposed above said flange and extending from said indented portion to the depending portion of the cap, and a sealing disk of substantially the same diameter as said cap located within and frictionally held in said cap, said indented portion of the cap operating to force the sealing disk into the opening in the container body and thereby embedding the inner edge portion of the flange in said sealing disk and thus forming a tight seal.

1,417,342. ELECTRIC SHIP PROPULSION. JOHN MARTIN and FREDERICK H. CLOUGH, Rugby, England, assignors to General Electric Company, a Corporation of New York. Filed Mar. 24, 1921. Serial No. 455,187. 4 Claims. (Cl. 172—8.)

2. An electric ship propulsion system comprising a pair of propeller shafts, a pair of similar synchronous motors, each mounted on separate shafts, a source of relatively high frequency alternating current, a source of relatively low frequency alternating current, means for connecting said motors in parallel to the high frequency source another pair of driving motors each having a rotor and the rotors mounted on separate shafts, said latter motors having fewer poles than the other motors and means for connecting said motors in parallel to the low frequency

source, the arrangement being such that when the synchronous motors are synchronized, the rotors of the second pair of motors are likewise in synchronism, whereby there can be no appreciable circulating currents between the second pair of motors.



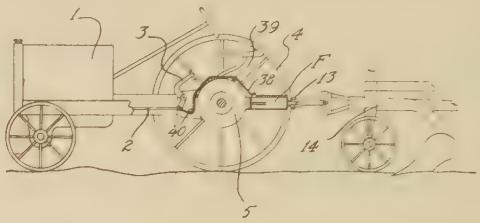
4. In an electric ship propulsion system comprising two alternators, one operated by a low speed prime mover and the other by a high speed prime mover, two propeller shafts each having a plurality of synchronous motors of differing pole numbers, the motors having a larger pole number being furnished with squirrel cage windings, and a dynamo electric machine on each shaft having an armature and a field member of such a number of poles that there is an even number of poles on all of the motors for each of the poles of this field member, the method of starting the ship which consists in running the low speed prime mover, operating the synchonous motors of larger pole numbers in parallel without field excitation from the alternator driven from the low speed prime mover, supplying excitation to the field members of the dynamo electric machines, connecting their armatures in opposition, supplying field excitation to the operating synchonous motors, gradually speeding up the alternator supplying the motors to its normal speed, running the high speed alternator at the speed of the active alternator, disconnecting the first alternator, connecting the high speed alternator to the synchonous motors with large pole numbers, gradually increasing the speed of the high speed alternator to its normal value, and connecting the low speed alternator to the motors with the fewer poles.

1,417,343. MUSICAL TOY. FRED MICHALICEK, Ely, Iowa. Filed Mar. 12, 1921. Serial No. 451,682. 3 Claims. (Cl. 46—46.)

1. An instrument of the class described comprising a mouth piece having a longitudinally extending bore with a member at its outer end having a flexible vibratory strip arranged transversely thereof and disposed edgewise relatively to the bore of said mouth piece, and a key connected with the free end of said strip to vary the tension thereof for altering the tone of the instrument.

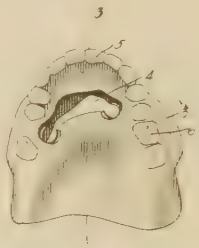
1,417,344. HITCH. EMIL NEWMAN, Fessenden, N. Dak. Filed Mar. 7, 1921. Serial No. 450,456. 3 Claims. (Cl. 180—14.)

1. In combination with a tractor having a clutch pedal for disassociating the engine shaft from the drive wheels of the tractor; of a hitch, including an open frame secured to the tractor, brace means between said frame and tractor, a spring influenced draw bar movable through the frame, a spring influenced flexible element between the hitch and the clutch pedal for operating the latter, spring influenced clutch means carried by the hitch frame and engaging with said flexible means for holding the latter



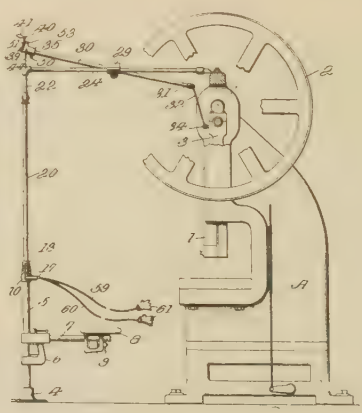
in non-clutch operating position, a contact element included in said clutch means, and a striker element on the draw bar designed for engagement with the striker element for influencing the clutch means to release the flexible clutch pedal operating means when the draw bar has been drawn a predetermined distance outwardly through the hitch frame.

1,417,345. DENTURE AND METHOD OF APPLICATION. ALFREDO PIMIENTA, New York, N. Y. Filed Dec. 28, 1921. Serial No. 525,324. 6 Claims. (Cl. 32—4.)



1. A denture comprising a plate formed with an opening for receiving certain natural teeth when the denture is in use, and a number of artificial teeth arranged in front of said opening, said artificial teeth being so positioned that when the denture is in use they will register with the oppositely positioned natural teeth.

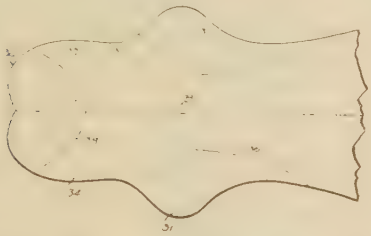
1,417,346. SAFETY DEVICE FOR PRESSES. MINARD A. POSSONS, Cleveland, Ohio. Filed June 27, 1921. Serial No. 480,901. 22 Claims. (Cl. 74—105.)



1. A safety device for presses or the like, comprising a rocker-arm pivotally supported in front of and in sepa-

rated relation to the press and above an operator thereof, one end of the rocker-arm in operative connection with the press and the other end of the rocker-arm in operative connection with the press operator, whereby at a predetermined time the hands of the operator are withdrawn from engagement with the press.

1,417,347. METHOD OF MAKING STOCKINGS. SOLOMON B. RAINS, Brooklyn, N. Y. Filed Jan. 19, 1921. Serial No. 438,492. 1 Claim. (Cl. 2—23.)



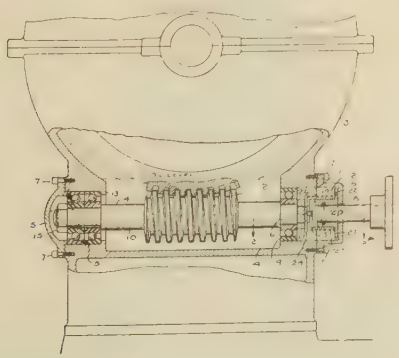
A stocking formed from a single blank of material cut to provide oppositely disposed heel sections and toe sections, said blank being folded along a central line to form a stocking in such a manner that the seam falls on the bottom of the foot and on the back of the leg portion of the stocking, and reinforcing elements secured to the stocking at the heel and toe sections, the reinforcing element at the toe section being formed of a single piece of material, one of the edges of which is scalloped to provide two wings, a portion of each of said wings forming a reinforcement for the top of the foot portion and a portion of each of said wings forming a reinforcement for the bottom of the foot portion, the scalloped edge of said reinforcing element being adapted to register with the seam of the stocking at the toe portion thereof and being secured to the stocking throughout its marginal edge, and the reinforcement at the heel section being a plurality of separate pieces of material secured to the stocking throughout the marginal edges of said separate pieces.

1,417,348. ALLOY. ALONZO U. RANDALL, Springfield, Ohio. Filed Nov. 29, 1920. Serial No. 427,003. 2 Claims. (Cl. 75—1.)

1. An alloy consisting of from 80 to 87 per cent zinc and from 20 to 13 per cent aluminum.

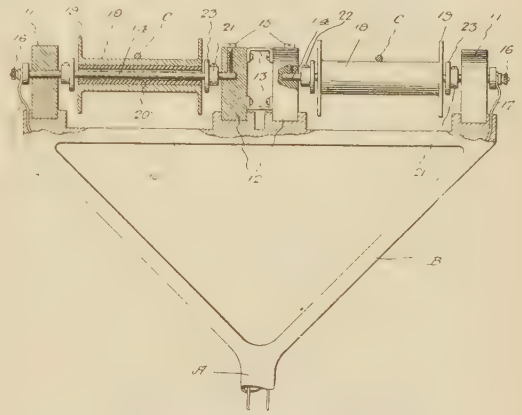
2. An alloy consisting of 84 per cent zinc and 16 per cent aluminum.

1,417,349. SHAFT CASING. LUTHER RINGER, Eden, N. Y., assignor of one-half to Louis M. Mundie, Eden, N. Y. Filed Oct. 6, 1921. Serial No. 505,917. 5 Claims. (Cl. 64—22.)



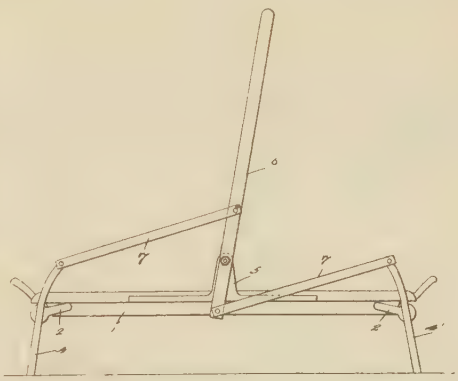
1. The combination with an oil chamber and a shaft operating in said chamber of means for preventing the escape of oil from said chamber comprising a head secured to said chamber as an end closure therefor and having an opening through which said shaft projects, a sleeve mounted slidably but nonrotatably on said shaft and formed to engage the inner face of said head with sealing effect, said sleeve being also formed to engage said shaft with sealing effect, and means for constantly pressing said sleeve against said head.

1,417,350. TROLLEY WHEEL. ELLYSON SHIRLEY ROBINSON and JOHN BOWERS, Richmond, Va. Filed Jan. 3, 1922. Serial No. 526,728. 2 Claims. (Cl. 191—56.)



1. A trolley pole head comprising a support, a pair of longitudinally aligned spindles stationarily mounted thereon, wires connected with said spindles and extending downwardly along the trolley pole, and spools rotatably mounted upon the spindles and having end flanges.

1,417,351. PANCAKE IRON. NANCY ANN ROSE, Republic, Wash. Filed July 11, 1921. Serial No. 483,844. 1 Claim. (Cl. 53—7.)

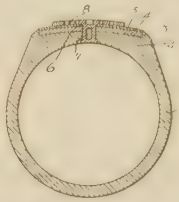


A cooking utensil having downwardly and outwardly extending lugs at its corners, a cross bar rotatably supported by each pair of lugs, legs connected with said cross bar, a bracket on the utensil, a lever pivoted to the bracket and links connecting the lever with one leg of each pair.

1,417,352. RING AND PLATE THEREFOR. RUBIN ROSENTHAL, Brooklyn, N. Y. Filed Jan. 29, 1921. Serial No. 440,955. 1 Claim. (Cl. 63—15.)

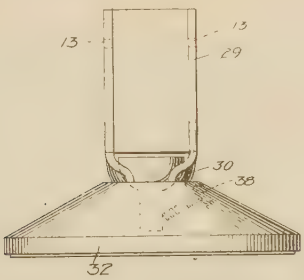
A ring of the character described, comprising a body having a recess in its face and an opening in the center of the bottom of the recess, a thin metallic plate coated

on one face with enamel and having a central opening, said plate removably fitting in the recess and the body,



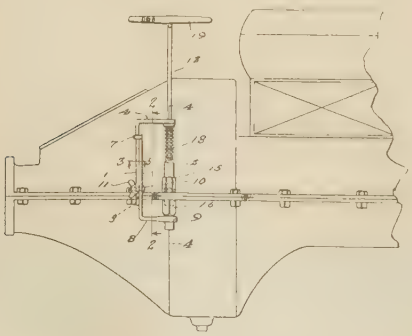
and an ornament fitting on the enamel plate and having a stem projecting through the openings of the plate and the body and riveted on the inner face of said body.

1,417,353. LADDER FOOT. FRED J. RYNERSON, San Diego, Calif. Filed Oct. 11, 1919. Serial No. 329,898. 1 Claim. (Cl. 228—61.)



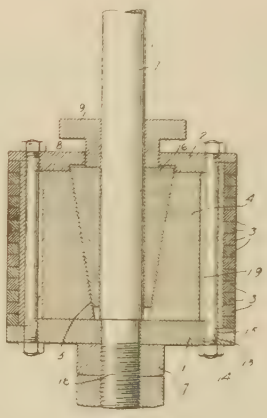
A ladder foot comprising a pair of plates secured upon opposite sides of each leg of a ladder, said plates having their lower ends formed with extensions of concavo-convex form mating to define a substantially hemispherical socket, a block associated with each pair of plates and formed in its upper face with a partially spherical concavity receiving the assembled socket members, the block being further formed with a bore leading into the concavity and a half-ball member fitting within said socket and having a stem secured within said bore.

1,417,354. WRENCH. WILLIAM H. SCOTT, Goffs, Kans. Filed Aug. 17, 1920. Serial No. 404,076. 2 Claims. (Cl. 81—55.)



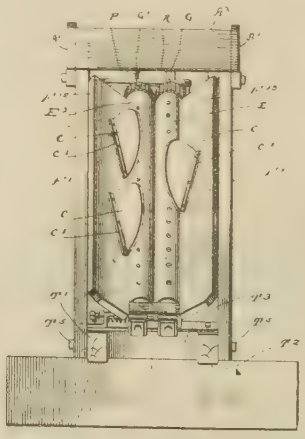
1. A wrench comprising a frame made up of lapped bars one of which is provided with a transverse aperture and the other of which is provided with a longitudinal slot, and one of which has a loop receiving the other and both of which have angularly-disposed arms spaced apart in parallel relation and in one of which is a circular aperture and in the other of which is an angular aperture alined with the circular aperture, a headed and threaded bolt extending through the slot and aperture of the lapped bars, and a nut mounted on said bolt; a shaft of circular form in cross section arranged in the circular aperture of one arm of the frame and having an exteriorly-angular inner end, a spring surrounding the shaft and interposed between said exteriorly-angular end thereof and one of the frame arms, a handle detachably fastened on the outer end of the shaft, and socket members, one removably arranged in the angular aperture of the frame and the other removably arranged on the exteriorly-angular end of the shaft, said wrench capable of disassembly for convenient carriage in a tool box.

1,417,355. PISTON PACKING. JAMES P. SIMPSON, New York, N. Y. Filed Sept. 20, 1921. Serial No. 501,888. 2 Claims. (Cl. 74—109.)



1. A packing construction for pistons, which comprises a plurality of annular split sections forming a piston body portion, said sections having tapered inner walls, a pair of plates disposed against the upper and lower faces of the sections, means for clamping said plates on to said sections, a plurality of packing rings disposed around said sections and between said plates, a tapered plug disposed within said sections, a flanged plate bearing on said plug, and adjustable means connecting said flanged plate with one of said previously mentioned plates to adjust the position of the plug, whereby the split sections can be expanded or contracted to determine the position of the packing rings.

1,417,356. CORN-HUSKING MACHINE. HORACE L. SMITH, Prince George County, Va. Filed Apr. 27, 1921. Serial No. 464,774. 6 Claims. (Cl. 130—5.)



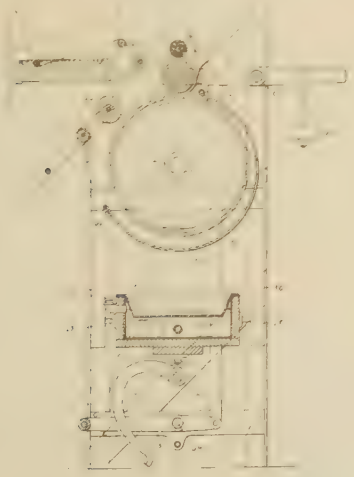
1. In a corn husker, the combination of husking rolls; a corn ear trough above said rolls; and a plurality of corn

ear controllers comprising plates attached to said trough, each of said plates having a straight edge for attachment to the trough and a curved edge extending over the path of travel of the ears on said rolls.

1,417,357. NEEDLE. JASPER FRED SNIDER, Clare, Mich. Filed Sept. 24, 1920. Serial No. 412,554. 1 Claim. (Cl. 223—37.)

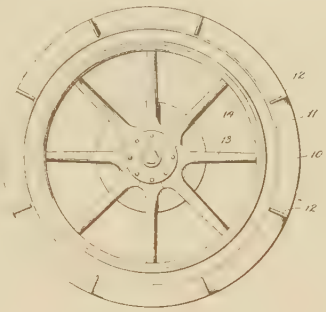
A needle, comprising a shank having a central passage with a wall closed on all sides and opening through one end of said shank, and also a transverse slot forming an eye intersecting said passage and opening through opposite sides of the shank, and a cross web intermediate the length of the slot and centrally located relative to the passage.

1,417,358. MACHINE FOR MAKING GELATINE FILMS AND PRINTING THEREFROM. ARCHIBALD H. SPAULDING, Hingham, Mass. Filed Aug. 23, 1919. Serial No. 319,519. 3 Claims. (Cl. 101—132.)



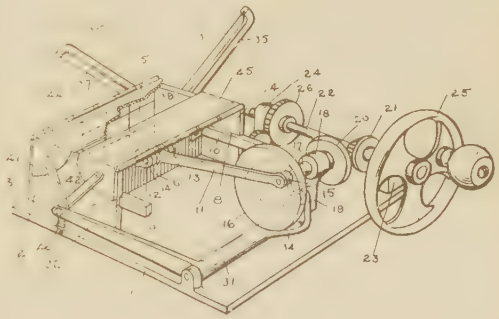
1. In a printing machine of the character stated comprising a supporting frame, a rotary cylinder journalled in said frame, means for maintaining said cylinder at a constant temperature comprising refrigerating means, and a screen, said screen being supported by the frame, said screen being formed to partially surround the cylinder to protect the same against the influence of the outside air.

1,417,359. TIRE ARMOR. WILLIAM G. STOCKHAM, Piqua, Ohio. Filed Nov. 18, 1920. Serial No. 424,894. 1 Claim. (Cl. 152—16.)



The combination with a pneumatic tire, of an armor therefor comprising a continuous resilient metallic band completely encircling the circumference of the tire and covering the major portion of the side walls thereof and held in position on said tire solely by the inherent resiliency of the band when the tire is inflated, said band having its side edges formed with terminal laterally curved lips and its side walls provided with spaced relatively thin substantially triangular traction plates disposed at substantially right angles thereto with their outer end edges flat and arranged in the same transverse plane as the crown of the band and merging into said crown and their outer side edges straight and terminating short of the lips, said traction plates being disposed in staggered relation with the exterior walls of the band between said plates at both the sides and crown of the band smooth and unobstructed.

1,417,360. BOILED-POTATO-SLICING MACHINE. ROBERT S. TRYNOSKI, Chicago, Ill. Filed Dec. 15, 1921. Serial No. 522,642. 4 Claims. (Cl. 146—7.)

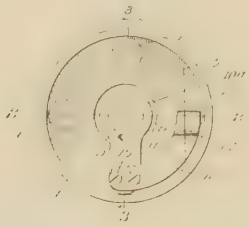


1. A machine for slicing boiled potatoes, comprising a magazine, a pusher plate operating to slide back and forth in said magazine from one end thereof, a wire mesh at the opposite end thereof, a cutting wheel on the outside of said wire mesh, a cover over said magazine, and means for simultaneously operating said pusher plate, said cutting wheel, and said cover, to hold the potatoes contained in said magazine from being forced through the top thereof, to force them through said wire mesh and to cut them with said cutting wheel.

1,417,361. TIMER MECHANISM. EARL W. TURNER, Kokomo, Ind. Filed Oct. 30, 1919. Serial No. 334,501. 1 Claim. (Cl. 200—24.)

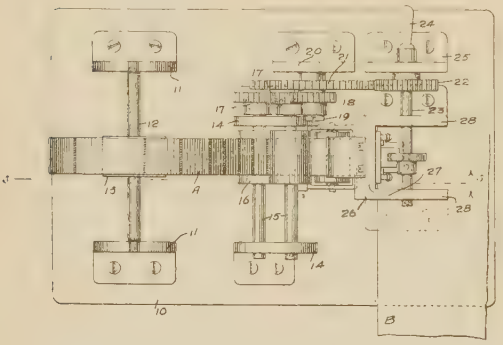
In a timer structure for explosive engines, a movable

contact element adapted for connection with a timer arm constructed of resilient material including a body curved



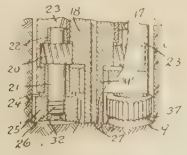
concentrically to the axis of the timer arm and having one end rolled and having the medial portion off set.

1,417,362. STAMP-AFFIXING MACHINE. ANTHONY VILLANI and JOHN VILLANI, Brooklyn, N. Y. Filed Dec. 21, 1920. Serial No. 432,288. 1 Claim. (Cl. 216—25.)



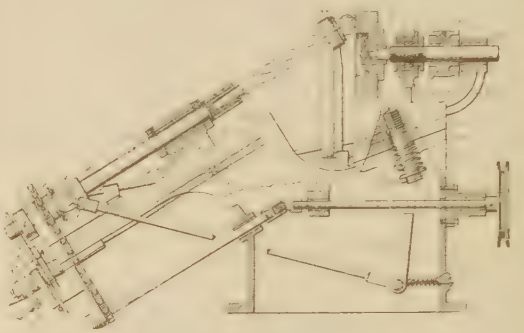
A machine of the class described, including a reciprocating cutter, a bracket on said cutter having a horizontal portion and an upstanding member, a spring pressed vertical plunger carried by the horizontal portion of said bracket and yieldable relatively to the bracket and thus yieldable relatively to the cutter when stamping, a drive shaft, means on said shaft to engage the upstanding member of said bracket to move the cutter and plunger in one direction, means to restore the cutter after movement by said shaft, and means to feed stamps to said cutter and plunger.

1,417,363. ROTARY BORING DRILL. FRANK L. O. WADSWORTH, Pittsburgh, Pa., assignor to Hughes Tool Company, Houston, Tex., a Corporation of Texas. Original application filed Feb. 6, 1918, Serial No. 215,589. Divided and this application filed Apr. 10, 1920. Serial No. 372,885. 13 Claims. (Cl. 255—71.)



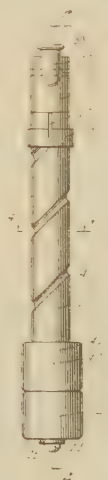
1. In a rotary drill bit, the combination of a head, and two disc-shaped members inclined slightly from the horizontal and rotatably mounted on the end thereof; each of the said members having a peripheral reaming surface, a lower milling and grinding face, and a peripheral groove on the reaming surface adjacent to the lower milling face to provide a sharp shearing edge at the end of the said member.

1,417,364. DRILL-GRINDING MACHINE. DAVID ALDON WALLACE, Waterloo, Iowa. Filed Oct. 5, 1920. Serial No. 414,749. 20 Claims. (Cl. 51—131.)



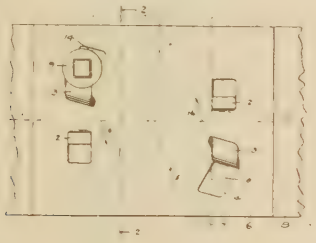
1. A grinding machine, including a grinding element, a shaft, a tool receiving socket attached to said shaft, a traveler supporting said shaft and being adapted to move the same longitudinally, a screw threaded rod engaging said traveler whereby to move the same, an annular ratchet member attached to said rod, a lever rotatably secured to said rod, a pawl attached to said lever and adapted to engage said ratchet, a cam fixedly secured to said shaft and adapted to rotate with the same, said cam being capable of bearing against said lever whereby to move the same and consequently rotate said rod.

1,417,365. THERMOMETER CASE. CHARLES ROBERT WALLENDORF, Brooklyn, N. Y. Filed May 8, 1920. Serial No. 379,871. 3 Claims. (Cl. 73—52.)



1. A thermometer case comprising a tubular member having a reduced end and an external spiral thread, a handle member revolubly mounted on the reduced end of said tubular member, a cap adapted for engagement with the open end of said tubular member, a thermometer carried by said cap, means pivotally mounted on said cap and adapted for engagement with the open end of said tubular member to support the thermometer at right angles thereto, and means adapted for engagement with said spiral thread to rotate said tubular member.

1,417,366. ANTICREEPER TIE PLATE FOR RAILWAY RAILS. WILLIAM S. WESTON, Dallas, Tex. Filed Oct. 1, 1921. Serial No. 504,539. 9 Claims. (Cl. 238—304.)



1. An anti-creeper tie plate for railway rails manufactured of resilient metal, having integral shoulders arranged to form a space slightly smaller than the rail base and to have a friction grip on said rail base when seated therein by force, the said arrangement of shoulders being such that in functional operation a rotative strain produced in the plate establishes a lever grip on the rail.

1,417,367. PROCESS FOR THE MANUFACTURE OF ANTHRAQUINONE. COURTNEY CONOVER, Philadelphia, Pa., and HARRY D. GIBBS, San Francisco, Calif.; said Conover assignor to James M. Selden, Pittsburgh, Pa. Filed June 7, 1917. Serial No. 173,404. 2 Claims. (Cl. 260—51.) (Filed under the act of Mar. 3, 1883, 22 Stat. L., 625.)

2. The method of oxidizing anthracene, which comprises passing a mixture of anthracene in the vapor phase, and an oxygen containing gas into contact with an oxid of vanadium as a catalyzer heated to a temperature of about 300° C. to 500° C. whereby anthraquinone is produced.

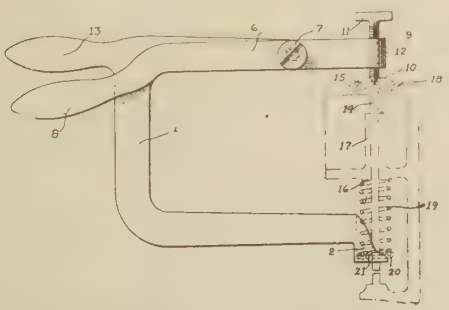
1,417,368. MERCURY NITRATE AS A REAGENT FOR THE PREPARATION OF NITROPHENOLS. TENNEY L. DAVIS, Somerville, Mass. Filed Apr. 16, 1921. Serial No. 462,029. 2 Claims. (Cl. 260—143.) (Filed under the act of Mar. 3, 1883, 22 Stat. L., 625.)

1. The process of producing nitrophenols, comprising treating an aromatic compound with nitric acid and mercury nitrate to produce a complex compound and then decomposing the complex compound with nitric acid into nitrophenol.

1,417,369. PROCESS FOR THE PREPARATION OF GUANIDINE. TENNEY L. DAVIS, Somerville, Mass. Filed Apr. 16, 1921. Serial No. 462,030. 3 Claims. (Cl. 260—125.) (Filed under the act of Mar. 3, 1883, 22 Stat L., 625.)

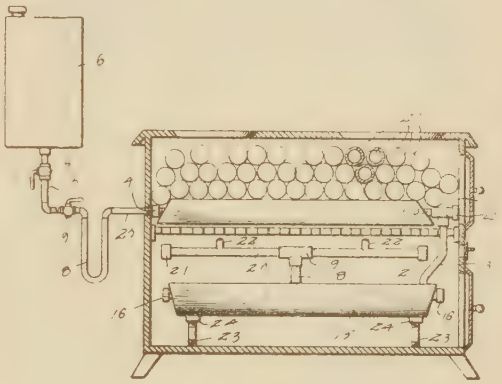
3. In the preparation of guanidine from dicyaniamide, the use of ammonia as a hydrolytic agent.

1,417,370. VALVE LIFTER. EDWIN E. FARIS, Chattanooga, Tenn. Filed Feb. 3, 1920. Serial No. 356,058. 3 Claims. (Cl. 29—86.3.)



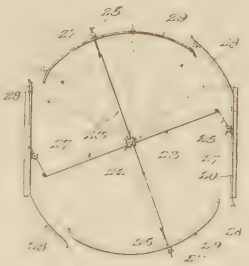
1. A tool for compressing valve springs comprising two pivoted members, one of said members being U-shaped and having the other member pivoted thereto, means upon one member to engage a valve spring, means upon the other member to engage the valve, a handle formed on said U-shaped member, and a handle formed at the adjacent end of the lever, the said handles being so positioned that the valve spring will be compressed by causing said handles to approach each other.

1,417,371. OIL BURNER. JAMES W. FARRAR, Buffalo, N. Y., assignor to Farrar Motors Corporation, Buffalo, N. Y., a Corporation of New York. Filed Aug. 4, 1920. Serial No. 401,137. 1 Claim. (Cl. 158—63.)



A fuel burner having a burner plate, a pipe in communication with a source of fuel supply embedded in said plate to constitute a supply passageway and a preheating chamber for fuel, a fuel pan below said burner, a pipe in communication with the first mentioned pipe and supported by said fuel pan, and a burner disposed intermediate said burner plate and second mentioned pipe supported by and in communication with the second mentioned pipe.

1,417,372. REVOLVING DOOR. JACOB M. FRIEDLAND, New York, N. Y. Filed Jan. 8, 1921. Serial No. 435,851. 16 Claims. (Cl. 20—18.)

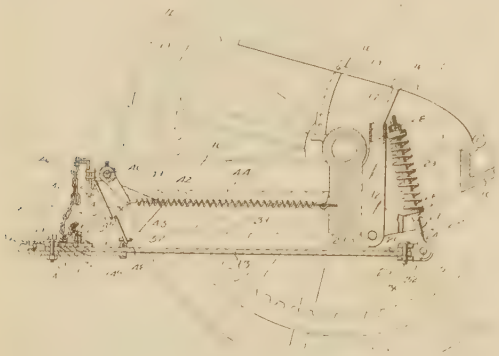


2. The combination, with side-walls of a passageway, of a revolving door therebetween comprising wings and leaves movably mounted thereon arranged to have closing cooperation with said side-walls in positions different with respect to said wings from those assumed when out of said cooperation, means having a tendency to restrain movement of said leaves relatively to said wings, and guide members and guides preventing sudden movement of said leaves.

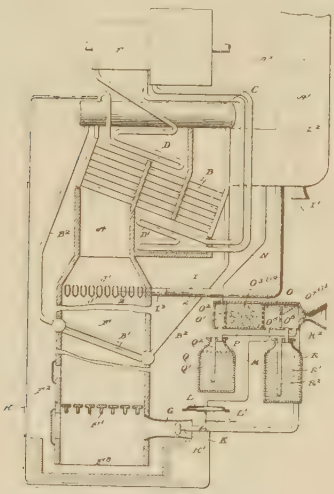
1,417,373. HITCH FOR TRACTORS. DAVID FRANKLIN GEIGER, Minneapolis, Minn., assignor of one-third to Arthur D. Cole, Minneapolis, Minn. Filed Aug. 16, 1920. Serial No. 403,896. 12 Claims. (Cl. 213—67.)

1. In a device of the class described, the combination with the frame of a draft vehicle, of a draw bar attached

at its forawrd end to said frame and free to swing both vertically and horizontally, a quadrant forming a horizontal slide for the free end of the draw bar and mechanism on the frame for yieldingly supported the quadrant.



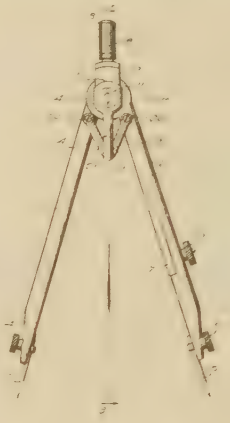
1,417,374. FURNACE. GEORGE H. GIBSON, Montclair, N. J. Filed Nov. 17, 1917. Serial No. 202,478. 5 Claims. (Cl. 236—15.)



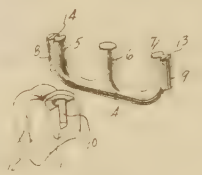
4. In a furnace having primary and secondary air supplies and means for regulating the ratio of primary to secondary air, the combination therewith of means automatically adjusting said ratio regulating means in response to the chemical composition of the gaseous products of combustion issuing from the furnace so as to minimize the variations in the chemical composition of said products dependent on said ratio.

1,417,375. DRAWING INSTRUMENT. CHARLES A. GREEN and HENRY F. SCHUH, Chicago, Ill., assignors to The C. F. Pease Company, Chicago, Ill., a Corporation of Illinois. Filed May 23, 1921. Serial No. 471,673. 3 Claims. (Cl. 33—157.)

1. A drawing instrument comprising a pair of legs, a yoke pivotally connecting said legs, a guide secured thereto, said guide comprising a base and side flanges, a portion of the side flanges engaging the yoke to maintain the guide in alinement with the yoke, and connections between said guide and said legs.

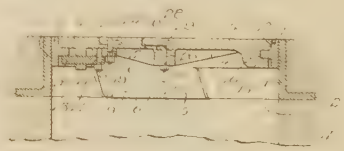


1,417,376. ARTIFICIAL TOOTH. SAMUEL L. GREENBERG, New York, N. Y. Filed Nov. 14, 1921. Serial No. 515,052. 3 Claims. (Cl. 32—12.)



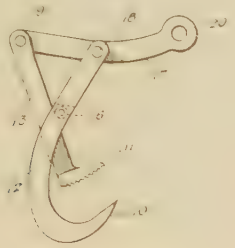
1. The combination of a support for artificial teeth having curved walls acting as tongues to engage the teeth, of a tooth having grooves in its faces to engage with said tongues.

1,417,377. MANHOLE FRAME AND COVER. LEON GSCHWIND, Youngstown, Ohio, assignor to Morris Bonnevie, Chicago, Ill. Filed June 7, 1920. Serial No. 387,267. 1 Claim. (Cl. 94—35.)



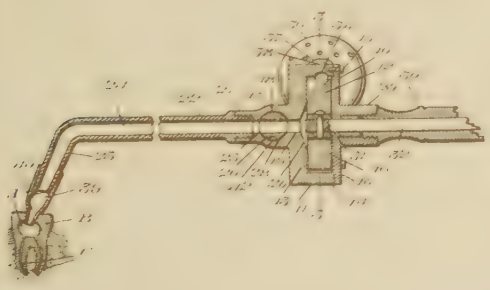
In a device of the class described, a frame member formed with an inwardly extending annular rib positioned at a spaced distance from the upper edge thereof, a closure for said frame member arranged to rest upon the upper surface of said annular rib, said closure being provided with a boss at its outer edge, said boss having a slot adapted to receive said rib, whereby a portion of the boss underlies the latter when the closure is in operative position, said closure being also provided with an integral guide keeper depending from the lower surface thereof below the plane of said rib, and positioned at a point diametrically opposite said boss, a locking member carried by said closure and guided by said keeper, said locking member being arranged for movement into and out of operative engagement with the under surface of said rib, and means extending through said closure and operable at will externally thereof for operating the locking member.

1,417,378. GRIP HOOK. LUCIUS HANDY, Woodlynn, N. J. Filed Oct. 23, 1920. Serial No. 419,001. 2 Claims. (Cl. 294—46.)



1. A grapple comprising a pair of relatively movable jaws each having a shank, the shank of one jaw being slotted to slidably receive the shank of the other jaw, a link pivoted at a point between its ends to the shank of the first mentioned jaw, and a pivotal connection between the free end of the link and the adjacent end of the other shank whereby the second mentioned jaw is movable toward and away from the first jaw.

1,417,379. METHOD AND MEANS FOR TREATING AND FILLING TOOTH CAVITIES AND NERVE CANALS. ARTHUR L. HARVIN, Washington, D. C. Filed Apr. 21, 1921. Serial No. 463,238. 8 Claims. (Cl. 32—10.)

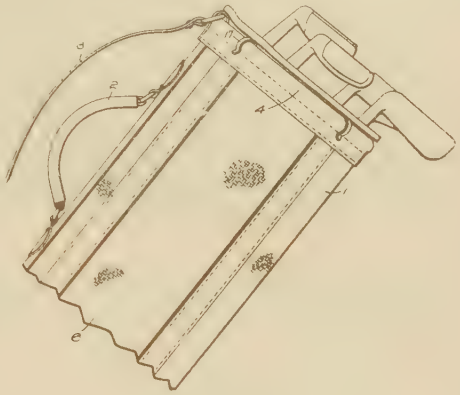


2. The method of treating teeth where the nerve canals are involved which consists in connecting air tight a duct to an opening in said canals, exhausting air sufficiently to withdraw by suction the contents of said canal and then continuing said suction to form a vacuum in said canals and that portion of said duct adjacent said canals, exposing a medicament located in said duct intermediate of said vacuum and a relief port for said vacuum, then withdrawing said medicament by air suction.

6. In combination, a dental instrument handle carrying a shaft operable by a dental engine, of a pump connected to said handle and operated by said shaft, a pump nozzle adapted for airtight connection to a tooth cavity or nerve canals, an air duct line connecting said nozzle and pump, a chamber in said duct line having a cut-off therefrom and an air inlet, said cut-off and inlet being positioned relatively to admit therebetween the lodgement of a medicament and filling in said chamber.

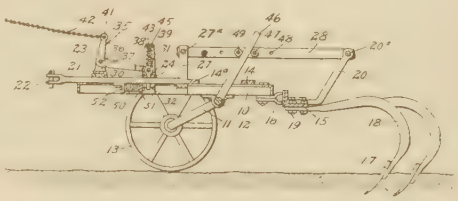
1,417,380. GOLF-CLUB SEPARATOR. HERBERT F. HATCH, Newton, Mass. Filed Apr. 14, 1922. Serial No. 552,491. 2 Claims. (Cl. 150—1.5.)

2. As an article of manufacture and sale, a golf club separator for golf bags, comprising a ring-like spider member of flexible material having a diameter substantially equalling that of the golf bag to which it is to be attached, said member having a plurality of resilient clips rigidly



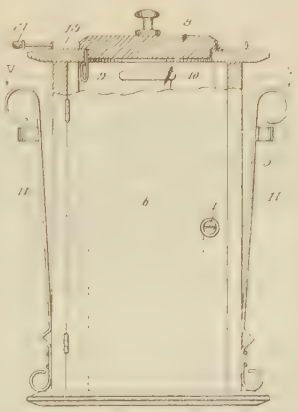
attached to its perimeter at spaced intervals and adapted to be sprung over the upper rim of the golf bag and to receive the golf clubs in the openings of said member.

1,417,381. CULTIVATOR. FREDRICK G. HENGST, Covina, Calif. Filed July 2, 1920. Serial No. 393,548. 5 Claims. (Cl. 97—34.)



1. In a device of the character described, the combination of a frame having traction supporting members, said supporting members having means for elevating cultivator teeth, said cultivator teeth pivotally mounted on said frame, a draw bar supported by said frame, and means whereby said draw bar dependently changes the angularity of said teeth and actuates said supporting members.

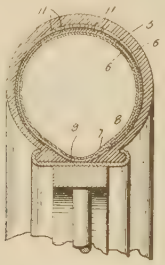
1,417,382. COMBINED MILK BOTTLE RECEPTACLE AND MAIL BOX. JOZSEPH HORVÁTH, South Bethlehem, Pa. Filed June 23, 1921. Serial No. 479,879. 3 Claims. (Cl. 232—41.)



1. In combination with a milk bottle receptacle having top and front doors respectively provided with automatic

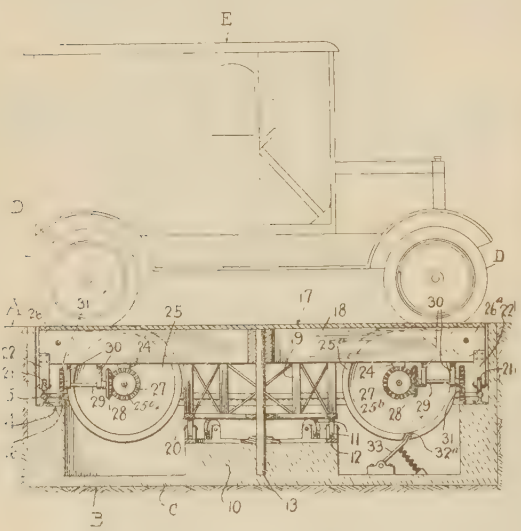
and key actuated locking devices, the automatic locking devices being operable to automatically lock the top door upon closing of the latter and releasable only from the interior of the receptacle when the front door is open, the top of said receptacle being provided with a mail receiving slot leading into the interior of said receptacle, of a pair of vertically slidable partition sections dividing said receptacle into a rear mail receiving compartment, and means to retain said partition sections in any desired vertically adjustable position whereby the mail may be prevented from falling into the milk bottle compartment of the receptacle and whereby said partition sections may be elevated for permitting ready withdrawal of the mail from the front door opening of said receptacle.

1,417,383. PNEUMATIC-TIRE TUBE. ORSON J. HUMPHREY, Elyria, Ohio. Filed Oct. 25, 1919. Serial No. 333,259. 1 Claim. (Cl. 152—13.)



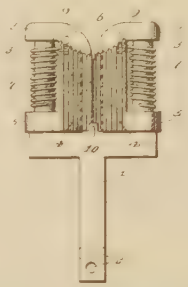
A tire tube structure having continuous reinforcing material impregnated with rubber, continuous elastic means vulcanized to said rubber including a portion bridging spaced portions of said material, a continuous protecting flap extending from, free and beyond one of said portions to cover the bridging portion of the elastic means, and means extending from the exterior of said material to engage the inner wall of a shoe to prevent creeping.

1,417,384. AUTOMOBILE TURNTABLE. THOMAS E. IMLER, Salina, Kans. Filed May 24, 1920. Serial No. 383,937. 5 Claims. (Cl. 104—41.)



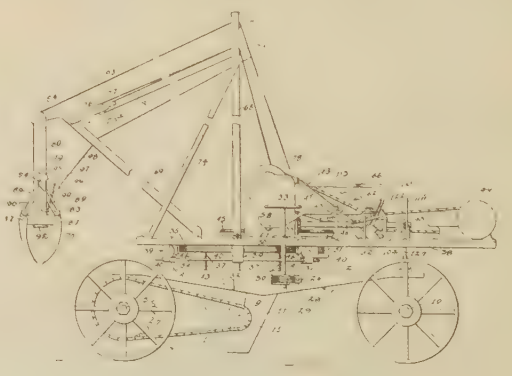
1. A device of the character described, comprising a circular pit formed within a driveway, a central upstanding projection within the pit, a shaft rising therefrom, a circular ring on said projection, a flange formed at the periphery of the pit, a circular rack on said flange, a turntable including a platform rotatable upon said shaft, a sub-structure carried by the platform, rollers on said sub-structure traveling on said ring, said platform being provided with parallel guides adapted to receive the wheels of a motor vehicle, a shaft journaled beneath the platform at the ends of said guides at each side thereof, wheels secured upon said shafts and extending within said guides, a gear carried by each of said last named shafts, counter-shafts journaled beneath the platform at opposite sides thereof, gears on said counter shafts meshing with said first named gears, and gears on said counter-shafts meshing with said circular rack.

1,417,385. HITCH RACK. LEARCUS H. JACOBS, Carthage, Ark. Filed Mar. 17, 1919. Serial No. 283,094. 1 Claim. (Cl. 280—185.)



A hitch rack of the class described comprising a T-shaped supporting member having a stem provided thereon and having a pair of folds formed therein arranged at right angles to each other, means for securing the device to the vehicle body, an upright shaft carried by the cross piece of the supporting member at each end thereof, gripping members rotatably supported on the latter, said members being of semi-circular formation in cross section and provided with a laterally extending part at each end thereof and having openings provided therein to receive the shaft, each of said semi-circular portions having longitudinal openings therein, a coiled spring located on each shaft and having one end secured thereto and its upper end secured to a part of the gripping members to hold said members with the semi-circular members, the end of the coiled spring passes through a slot formed in the semi-circular portion into longitudinal openings, a bar supporting the end of the spring and engaging said openings to hold the spring in engagement with said members, a wedge-shaped projection provided on the cross piece of the supporting member midway its ends for limiting the movement of said members.

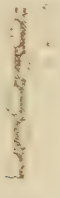
1,417,386. HOISTING MACHINE. JOHN G. JOHNSON, St. Louis, Mo. Filed Feb. 24, 1919. Serial No. 278,599. 3 Claims. (Cl. 212—38.)



1. In a machine of the class described, a truck, a platform mounted on the truck for pivotal movement,

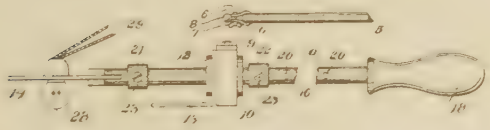
hoisting means mounted on the platform, means to propel the truck, steering means for the truck including a bearing mounted for vertical pivotal movement and also including a steering post mounted in said bearing and, hence, arranged for vertical pivotal movement so that said steering post can be lowered out of the way of the platform when the latter is to be turned.

1,417,387. RADIATOR TUBE. FREDERICK F. JUNGERHELD, Saginaw, Mich., assignor of one-fourth to Wellington B. Wylie, Saginaw, Mich., and one-fourth to Stork Motor Company, Saginaw, Mich., a Corporation. Filed Jan. 7, 1920. Serial No. 349,903. 2 Claims. (Cl. 257—130.)



1. A radiator core comprising a plurality of water tubes, the sides of each tube made from two sheets of metal, one sheet wider than the other, the two longitudinal edges of said wider sheet bent upon and enclosing respectively the two longitudinal edges of the narrower sheet, each provided with a plurality of rows of outwardly projecting offsets to form abutments between adjacent tubes, and inwardly projecting offsets intermediate said outward offsets to form spacers for the sides of said tube.

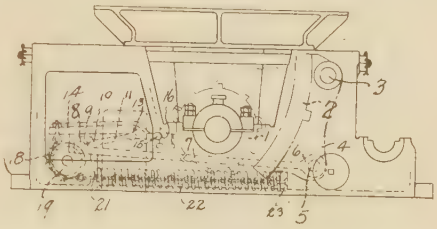
1,417,388. AUTO SIGNAL. LOUIS M. KOLB, Philadelphia, Pa. Filed Oct. 29, 1921. Serial No. 511,242. 7 Claims. (Cl. 116—52.)



1. A direction signal comprising a support and means for connecting the same to a vehicle, a longitudinally split rod journaled in said support and diametrically separated into two half portions one part thereof being adapted for limited longitudinal displacement relative to the other part, an angle plate shield mounted on one side of the support, a signal arm pivoted to one part of the split rod and having a cam slot therein, said signal arm being adapted for oscillatory movement by means of a pin carried by the other part and engaging in the cam slot aforesaid, and adjustable spacing collars secured to half of the split rod for arresting its reciprocation to effect the oscillation of the signal arm from non-signalling to signalling position and vice versa.

1,417,389. STONE CRUSHER. GEORGE E. KRIDER, Duncanville, Pa., assignor to McLanahan Stone Machine Co., Hollidaysburg, Pa. Filed Oct. 7, 1921. Serial No. 506,045. 5 Claims. (Cl. 83—14.)

1. A cushioning unit for crushers including in combination with the disintegrator roll and the breaker plate, a relatively horizontally disposed rod connected with the breaker plate, a lever having its fulcrum located at one end and a resilient connection at the other, and a motion

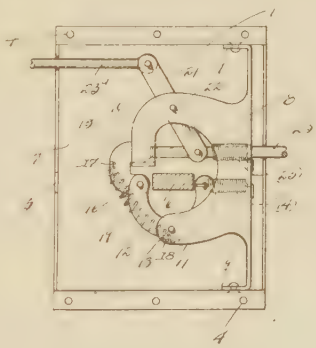


transferring link arranged between the said rod and lever.

1,417,390. WRENCH. WILLIAM H. KRUMSICK, Spokane, Wash. Filed Apr. 18, 1921. Serial No. 462,135. 5 Claims. (Cl. 81—174.)

1. A wrench embodying a handle, means whereby either a longitudinally movable member or a rotatable member may be mounted upon the handle and means engageable with either of said members, whereby the same may be operated.

1,417,391. DOOR LATCH. JOSEPH KUCZKOWSKI, Bay City, Mich. Filed Apr. 7, 1921. Serial No. 459,222. 4 Claims. (Cl. 292—220.)

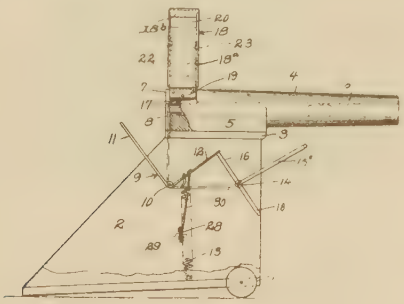


1. A door latch comprising a case, a bracket rigidly mounted in the said case and having laterally extending forked extremities, a substantially arcuate member pivoted to one of said extremities, a latch member pivoted at the outer end of said member, the inner end being yieldably connected to the bracket, and a spring member anchored to the said arcuate member and the said latch for normally forcing it into engagement with the other bracket extremity, and means for releasing the said latching mechanism.

1,417,392. TOY GUN. SAMUEL LANDER, Sutersville, Pa. Filed June 14, 1921. Serial No. 477,527. 5 Claims. (Cl. 124—13.)

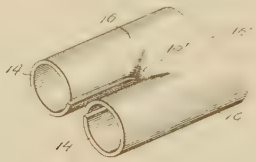
1. In a toy gun, a barrel provided with a slot communicating with the bore of the barrel, a magazine communicating at its discharge end with said slot and including two members for confining between them projectiles, one of said members being resilient and normally pressing inwardly toward the other member to prevent

discharge of the projectiles from the magazine, projecting means positioned to act upon projectiles discharged from the magazine into the barrel, and means actuated



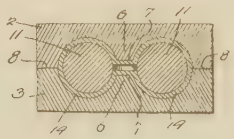
by said projecting means for causing outward movement of said resilient member for feeding the projectiles from said magazine into the barrel.

1,417,393. METHOD OF MAKING RETURN BENDS. COLUMBUS K. LASSITER and JULIUS KINDERVATER, New York, N. Y. Filed Nov. 24, 1920. Serial No. 426,246. 10 Claims. (Cl. 29—157.6.)



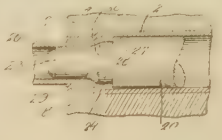
1. The method of making the leg end of a return bend, which consists in shaping one end of a piece of tubular stock to form leg and crotch portions divided by a cleft across the crotch and along the inner sides of the legs, introducing a mandrel through the opposite end of the stock to back the leg and crotch portions, subjecting said leg and crotch portions to the action of dies and while under welding heat so as to close said cleft and weld the walls thereof, said dies having surfaces which enter the space between the legs and cooperate with the mandrel for a backing action in said cleft closing and welding operation, and then suitably closing the said opposite end of the bend.

1,417,394. DIES FOR MAKING RETURN BENDS. COLUMBUS K. LASSITER and JULIUS KINDERVATER, New York, N. Y. Filed Nov. 24, 1920. Serial No. 426,247. 8 Claims. (Cl. 78—60.)



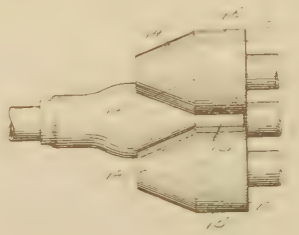
1. Dies for use in making the leg-end of a return bend from a piece of tubular stock comprising shaping die members having surfaces of a shape adapted for initially compressing one end of the stock to form incomplete leg and crotch portions each having opposed walls separated by a gap, similar walls of said portions being connected by spaced bridge pieces, and welding die members having surfaces complemental to the surfaces of the first-named die members, and adapted after removal of said bridge pieces for compressing said walls and closing said gap and welding the opposed walls together.

1,417,395. CONNECTING PIPES AND RETURN BENDS. COLUMBUS K. LASSITER and JULIUS KINDERVATER, New York, N. Y. Filed Nov. 24, 1920. Serial No. 426,248. 14 Claims. (Cl. 29—157.6.)



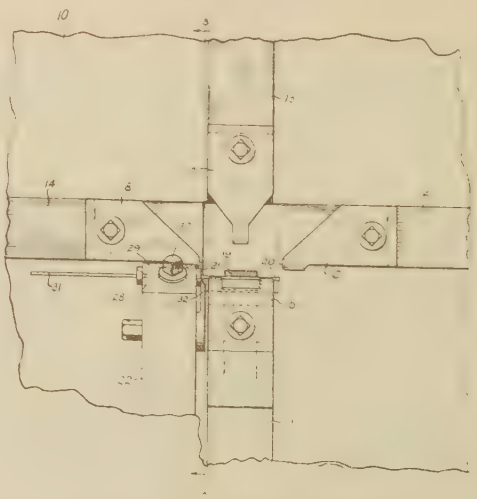
1. The method of connecting pipes and return bends, which consists in providing a bend with split tubular leg portions, fitting ends of pipes in the leg portions, and then closing and welding the walls of said split leg portions and simultaneously welding said pipe ends to and within said leg portions.

1,417,396. RETURN BEND AND METHOD AND APPARATUS FOR MAKING SAME. COLUMBUS K. LASSITER and JULIUS KINDERVATER, New York, N. Y. Filed Nov. 24, 1920. Serial No. 426,249. 22 Claims. (Cl. 29—157.6.)



1. The method of forming the cap end of a return bend, which consists in reducing the bend from a cross-sectionally elliptical form to a form in which it tapers toward its open end and terminates at such end in a substantially circular constricted portion, and then spinning down the walls of the tapered portion of the bend by rolling compression on lines converging in the direction of the open end until such walls at such end merge and are solidly welded together.

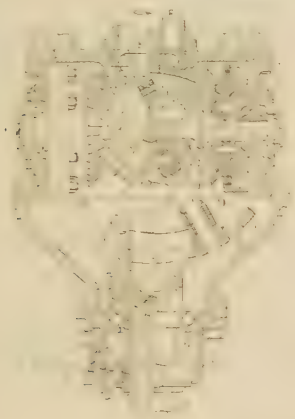
1,417,397. METAL-FORMING MACHINE. ARTHUR J. LEWIS, Stratford, Conn., assignor to The Baird Machine Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Feb. 9, 1921. Serial No. 443,603. 11 Claims. (Cl. 153—34.)



1. In a machine of the character described, the combination of a form, reciprocating forming tools adapted

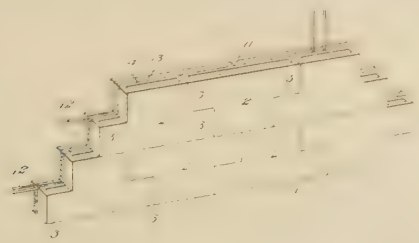
to co-act therewith, a cut-off bracket having a recess, a quill seated in said recess, and means for retaining the quill in place, said means leaving one side of the quill unobstructed.

1,417,398. MOTION-TRANSMITTING APPARATUS. GEORGES LHERMITTE, Nantes, France. Filed Sept. 4, 1920. Serial No. 408,311. 4 Claims. (Cl. 74—54.)



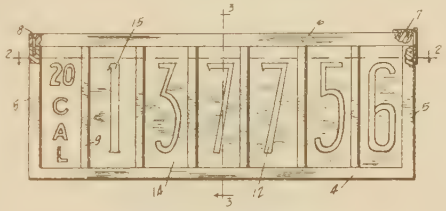
1. A motion transmitting apparatus, comprising a rotary driving shaft, a rotatable driven shaft in alignment with the said driving shaft, a crank arm on the said driving shaft, a slot in said crank arm, secondary shafts located at right angles the one to the other in a plane at right angles to the common axis of the driving and driven shafts, a connecting rod guided at one end within the slot of the crank arm of the driving shaft, means respectively fast with the secondary shafts and connected with the rod, at the other end thereof, at the intersection of both secondary shafts, and adapted to transmit from said rod, on rotary motion of the driving shaft, intermittent motions to the said secondary shafts, ratchet means connecting the secondary shafts and the driven shaft and adapted to transform the said intermittent motions of the secondary shafts into a continuous motion of the driven shaft, and means for adjusting the free end of the connecting rod within the slot of the crank arm of the driving shaft.

1,417,399. HOLLOW CONCRETE WALL BLOCK CONSTRUCTION. JAMES M. MCCURBY, San Luis Obispo, Calif. Filed Dec. 8, 1917. Serial No. 206,338. 2 Claims. (Cl. 72—30.)



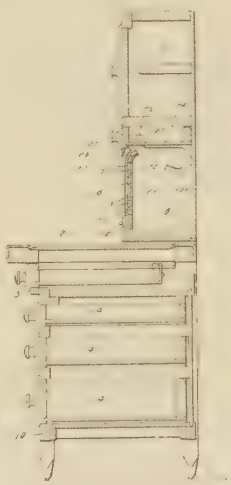
1. A hollow concrete wall construction including a plurality of separate interlocking hollow blocks arranged in vertical staggered relation, each of said blocks including relatively narrow end portions and an extended intermediate portion, a central wall dividing the blocks vertically and longitudinally to form an inner chamber, end walls connecting one of the side walls with the partition to form said inner chamber, which is closed at both ends, and an outer chamber open at each end and a bar positioned transversely of the outer chamber intermediate its ends, said outer chamber being filled with concrete.

1,417,400. ILLUMINATED LICENSE PLATE. EDGAR MCGARVIN, Los Angeles, Calif. Filed Jan. 18, 1921. Serial No. 438,178. 1 Claim. (Cl. 40—133.)



An illuminated license plate comprising a casing, a frame sustained on the casing and including grooved side and top rails, the top rail being hingedly supported on one of the side rails to occupy open and closed positions, means on the side rail for locking the top rail in closed position, upstanding partitions secured at regularly spaced intervals on the bottom rail of said frame and having their vertical edges formed with grooves, and color and number plates slidably fitted in the grooves of said partitions and adapted to be secured therein by said top rail.

1,417,401. KITCHEN CABINET. CLARENCE MAHONEY, Elwood, Ind., assignor to G. I. Sellers and Sons Company, Elwood, Ind., a Corporation. Filed Sept. 9, 1921. Serial No. 499,394. 1 Claim. (Cl. 45—16.)

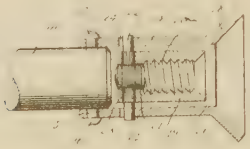


A cabinet having a compartment fitted with a roller door, the side walls of the compartment being provided with communicating substantially horizontal and substantially vertical guide grooves and the door consisting of a plurality of roller bars terminally fitted for movement in said grooves, outlet grooves being provided in communication with said horizontal grooves for permitting the removal of the door from its guides, and supplemental guides arranged above the plane of said horizontal guides and in communication with the outlet groove, in combination with a sliding drawer having ribs fitted in said supplemental guides for closing the interval between the upper edge of the roller door and the top of the cabinet.

1,417,402. WINDING DEVICE. DAVID L. MATTERN, New York, N. Y., assignor to Columbia Graphophone Manufacturing Company, Bridgeport, Conn., a Corporation of Delaware. Filed Mar. 2, 1921. Serial No. 449,035. 20 Claims. (Cl. 64—89.)

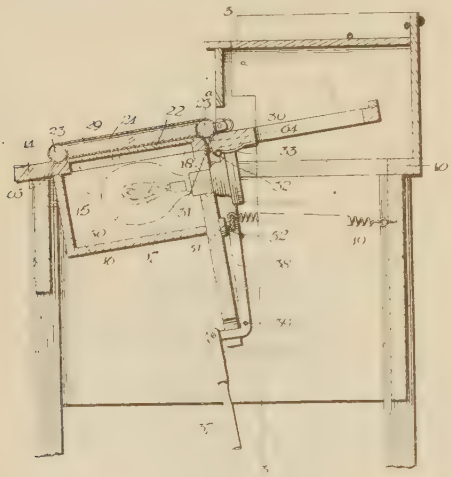
19. In a winding mechanism for motors, a shaft to be wound, flexible connection means provided upon the shaft,

and detachable winding means adapted to be connected to said flexible connection means, and means whereby said



last named means may be directed into engagement with the connection means.

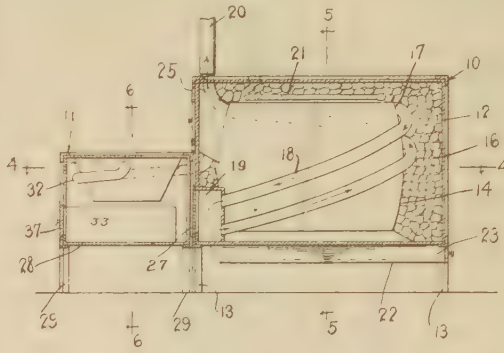
1,417,403. PHOTOGRAPHIC-PRINTING APPARATUS. ROBERT DEMAS MONINGER, Washington, Pa.; Annie R. Moninger being administrator of said Robert Demas Moninger, deceased. Filed June 25, 1920. Serial No. 391,601. 8 Claims. (Cl. 95—73.)



1. In a photographic printing apparatus of the character described, a transparent support, a presser coacting with said support and constrained to reciprocatory movement thereacross and consisting of a pair of spaced rollers, a presser block arranged between said rollers and a flexible band having its ends secured and extending around said rollers and said block and relatively movable with respect thereto, means for reciprocating said presser across said transparent support including a bell-crank lever having a yoke end and a link pivotally connecting each arm of said yoked end to the presser, and a spring for each link connection, each of said springs having one end secured to said lever and the other end secured to said link whereby said presser is urged into contact with said support in all positions.

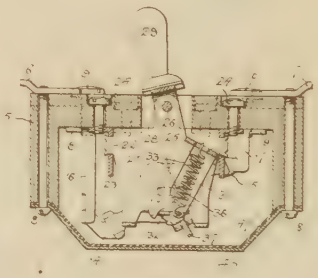
1,417,404. OVEN. PETER MUSTONEN, Superior, Wis. Filed Nov. 20, 1920. Serial No. 425,587. 2 Claims. (Cl. 126—4.)

1. A stove comprising a heating section, a fire box located therein and spaced from the side and rear walls thereof to provide a heating chamber, heat retaining elements filling said chamber, a smoke pipe surrounding the fire box and communicating with the interior thereof and



a cooking section having detachable engagement with the heating section.

1,417,405. ELECTRIC SWITCH. ARVID H. NERO, New Britain, Conn., assignor to The Arrow Electric Company, Hartford, Conn., a Corporation of Connecticut. Filed Jan. 15, 1920. Serial No. 351,661. 4 Claims. (Cl. 200—67.)



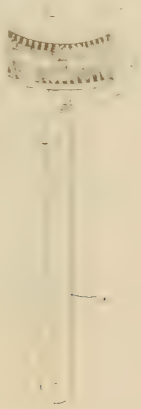
1. In a snap switch mechanism, a pivoted lever with inwardly offset lugs at its inner end, a pivoted rocker slotted to receive said lugs, a pivoted switch yoke and an actuating spring operatively connected between said rocker and switch yoke.

1,417,406. MOTOR-VEHICLE TRANSMISSION MECHANISM. PERRY B. NEWKIRK, Seattle, Wash., assignor to Fred M. Bawden (in trust), Toronto, Ontario, Canada. Filed Mar. 4, 1922. Serial No. 540,950. 4 Claims. (Cl. 180—10.)

1. Transmission mechanism for motor vehicle, comprising a dead axle having an end bearing, a traction wheel thereon having a concentric gear, a live axle or jack shaft provided with a pinion in mesh with said gear, a housing having bearings in which said live axle is mounted, a swinging mounting journaled at its opposite ends upon said dead axle and said housing respectively,

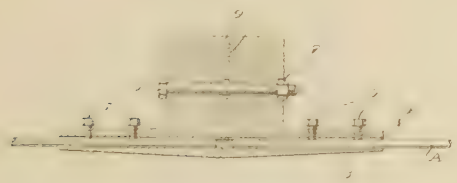
and a vehicle support rigidly secured to said housing, whereby the latter is maintained in parallel relation with the vehicle body but may move in an arcuate path with respective to said dead axle.

1,417,407. TOOTHBRUSH. JOSEPH NOVAK, Chicago, Ill. Filed Oct. 22, 1921. Serial No. 509,502. 3 Claims. (Cl. 15—167.)



1. In a toothbrush, a head structure comprising spaced connected plates curved to conform to the curvature of the user's mouth, and bristles attached to and extending inwardly from the facing surface of said plates, said bristle carrying plates being connected by a web having an arcuate slot therein and a resilient member slidable in said slot and adapted to be gripped by the teeth of the user.

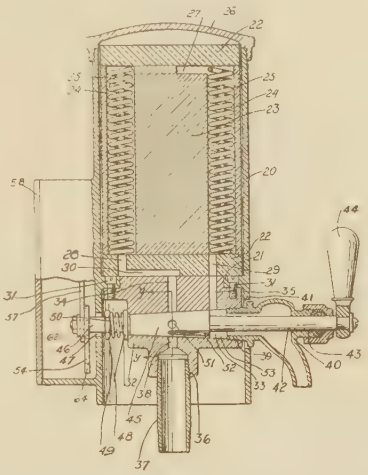
1,417,408. WIRE CONNECTOR. GEORGE W. PUGH, Leona Mines, Va. Filed Oct. 24, 1921. Serial No. 510,173. 3 Claims. (Cl. 191—44.1.)



1. A device of the class described comprising a pair of members having extensions at the lower ends, means for connecting the end of a wire to each extension and means for connecting the bodies of the two members together.

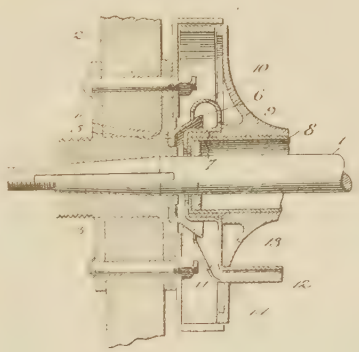
1,417,409. ELECTRICAL WATER HEATER. THOMAS L. RALPH, Bridgeport, Conn., assignor, by mesne assignments, to Henry Bobker, New York, N. Y. Filed Jan. 20, 1921. Serial No. 438,599. 10 Claims. (Cl. 219—39.)

1. An electric water heater comprising a heating element having a continuous passage and an inlet and an outlet opening, a valve body having a bore and provided with openings extending between said bore and said inlet and outlet openings, respectively, said valve body further having an opening extending between said bore and a water supply pipe, a faucet projecting from said bore, and a ported plug arranged in said bore, whereby said supply pipe opening may be closed, or communication may



be had from said supply pipe, through said element and to said faucet, or water may flow to said faucet direct from said supply pipe.

1,417,410. OIL AND GREASE DEFLECTOR. JOHN H. RAM, Jersey City, N. J., assignor of one-half to Edgar E. Elder, Brooklyn, N. Y. Filed Aug. 27, 1920. Serial No. 406,470. 5 Claims. (Cl. 64—22.)

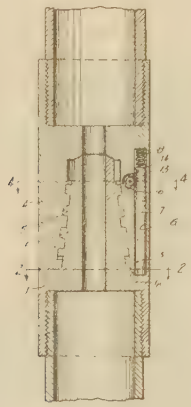


1. In a device of the class described, the combination of a member including a portion for attachment to a rotary member, and a conical oil-slinging portion, an axle-housing cap member having an annular groove adapted to co-act with the first said member for catching and conducting oil thrown off from the first said member.

1,417,411. TOOL-JOINT LOCK. CHARLES B. REYNOLDS and CLARENCE D. REYNOLDS, Whittier, Calif. Filed Nov. 11, 1920. Serial No. 423,408. 3 Claims. (Cl. 285—146.)

1. The combination with members having a threaded joint, of a locking pin projected from one member, a cir-

cumferential groove in the other member adapted to receive said pin, one of the longitudinal contacting surfaces



between said pin and groove being stepped circumferentially of said members.

1,417,412. MEDICINE AND HYGIENIC FOOD. JOSEPH C. RICHARD, New York, N. Y. Filed Mar. 14, 1914. Serial No. 824,671. 9 Claims. (Cl. 99—11.)

1. Fruit juice in which lactic acid has been developed by fermentation of the *Bacillus bulgaricus*.

8. The process of making products contanning lactic acid micro-organisms, which consists in subjecting fruit juice and a nontoxic neutralizing agent, to lactic acid fermentation.

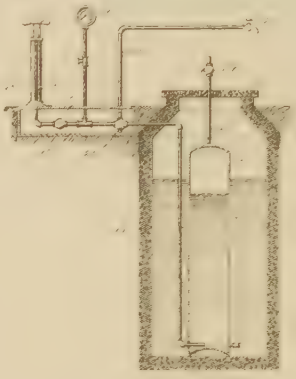
1,417,413. COLORATION OF METALLIC SURFACES. TITO RONDELLI, Turin, and QUIRINO SESTINI, Bergamo, Italy, assignors of one-third to Sestron (Foreign Patents) Limited, London, England. Filed June 30, 1920. Serial No. 393,198. 10 Claims. (Cl. 204—1.)

1. The process for colouring metallic surfaces which comprises submitting the surface to be coloured to anodic oxidation in the presence of a concentrated alkaline electrolyte containing copper.

1,417,414. PROTECTOR. LOUIS J. SANDERS, Takoma Park, Md. Filed Mar. 29, 1921. Serial No. 456,732. 5 Claims. (Cl. 128—87.)

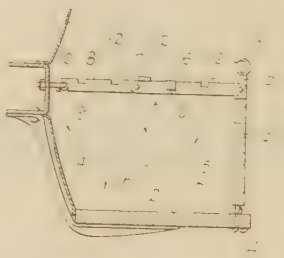
1. A digit protector constructed from a plane sheet of material comprising a central disk and radiating arms, the said arms being bent to encircle the axis of the disk.

1,417,415. PUMPING APPARATUS FOR CISTERNS. THEODORE SARLLS, Sanders, Ky., assignor of forty-nine per cent to Thomas E. Weldon, Sparta, Ky. Filed Feb. 5, 1921. Serial No. 442,863. 1 Claim. (Cl. 103—8.)



The combination with a cistern or reservoir; of a vertical cylinder located within said cistern or reservoir and provided at its lower end with a check valve opening inwardly to the cistern, an air pump, a pipe line connecting said air pump and the lower end of said cylinder said pipe line including a check valve opening away from said pump and a three-way valve, a draw-off pipe connected to said three-way valve and provided with an outlet bibb, and a blow-off valve connected to the upper end of said cylinder.

1,417,416. AUTOMOBILE ACCESSORY. CARL WILHELM SCHOPPE, Portland, Oreg. Filed June 27, 1921. Serial No. 480,525. 2 Claims. (Cl. 224—29.)

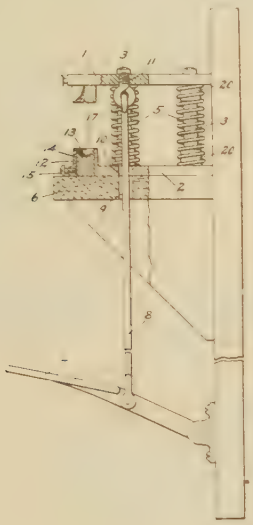


2. In a device of the character described, the combination of an automobile having a running board, with a foot mat having one edge hingedly attached to the running board, spring clamps attached to the edge of the foot mat opposite the hinges, and a rod of slightly greater length than the mat removably secured in the spring clamps.

1,417,417. PRESS. PHILLIP A. SEEWAGEN, Los Angeles, Calif. Filed May 27, 1920. Serial No. 384,682. 3 Claims. (Cl. 18—42.)

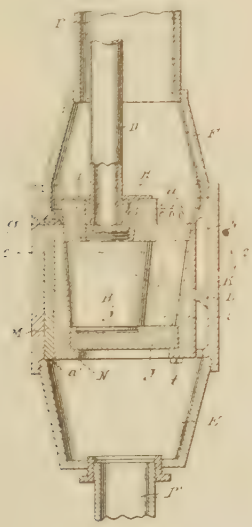
1. A press comprising die plates movable toward and away from one another and each having a plurality of die recesses, the die recesses of one die plate being ar-

ranged to co-operate with the die recesses of the other plate, the die recesses of the die plates having co-operating



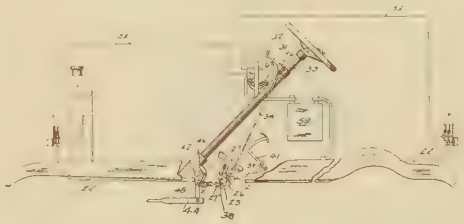
cross channels connecting the respective recesses of the die plates.

1,417,418. ROTARY PUMP. JOHN F. SMITH, Wooster, Ohio, assignor of one-half to Charles M. Jeffries, Apple Creek, Ohio. Filed Mar. 5, 1921. Serial No. 449,997. 2 Claims. (Cl. 103—44.)



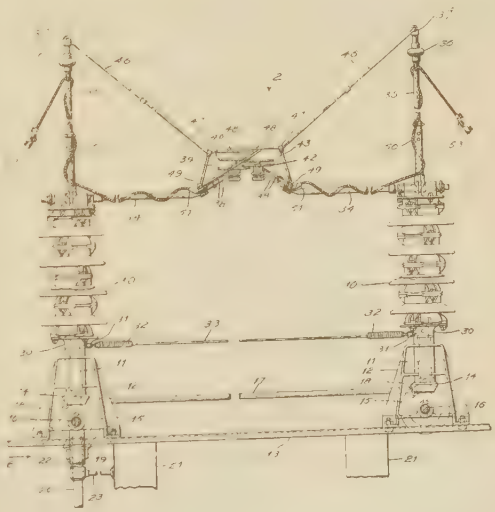
1. In a device of the character described, the combination with a cylindrical casing, of a piston rotor seated eccentrically therein, a wing slidably mounted in said rotor adapted to conform with the wall of said conical well, while said rotor revolves; cavities within the wall of said casing, a vertical diaphragm dividing the cavities longitudinally; a spiral diaphragm in relation to said vertical diaphragm, dividing said cavities laterally; openings from said cavities inwardly on both sides of said vertical diaphragm; openings from and into said cavities above and below said spiral diaphragm, respectively, and means for actuating said piston rotor, substantially as set forth.

1,417,419. SIGNALING DEVICE. RAYMOND G. SMITH, Moss Beach, Calif. Filed Aug. 12, 1919. Serial No. 317,031. 4 Claims. (Cl. 116—36.)



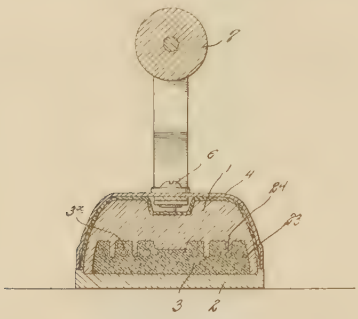
1. In a signaling device for automobiles, a pivotally mounted lever, a U-form link pivotally attached at one end to said lever, a normally concealed signal mediately connected to the other end of said link, means operated by the driver for turning said lever past its dead center to expose said signal and retain it in exposed position, a second lever pivotally mounted adjacent said first lever, means connecting said second elver with the steering wheel and means on said second lever for moving the first lever off its dead center when said second lever is moved in either direction by the steering wheel.

1,417,420. HIGH-POTENTIAL SWITCH. GEORGE T. SOUTHGATE, New York, N. Y. Filed Apr. 26, 1920. Serial No. 376,748. 13 Claims. (Cl. 200—48.)



3. In an electric switch the combination with a pair of arms, of a contact mounted on one end of each arm, revoluble supports for the other ends of said arms having parallel axes, means for turning said supports, masts axially in line with said supports and discharge horns extending between each of said arms and the corresponding mast.

1,417,421. ELECTRICALLY-HEATED FLATIRON. EMIL STRANSZKY, Dover, Ohio. Filed Mar. 5, 1921. Serial No. 449,890. 9 Claims. (Cl. 219—25.)

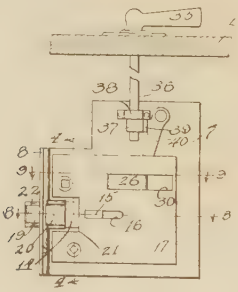


1. A unit for incorporation in an electrically heated iron comprising a cupped or chambered clamp body, a filling of dielectric and refractory plastic material in the cup or chamber of said body, and a heating unit embedded in the said filling of plastic material.

1,417,422. CIGAR LIGHTER. FRANK W. STRUBING, Hartford, Wis. Filed Sept. 27, 1920. Serial No. 412,965. 5 Claims. (Cl. 219—32.)

1. In a cigar lighter, a base, a block of insulating material detachably secured in said base, a coil of thin wire wrapped about said block to form a resistance, and means for connecting said coil into an electric circuit in series.

1,417,423. AUTOMOBILE DOOR LOCK. BAYARD E. TAYLOR, Oak Park, Ill. Filed June 21, 1920. Serial No. 390,342. 6 Claims. (Cl. 70—29.)



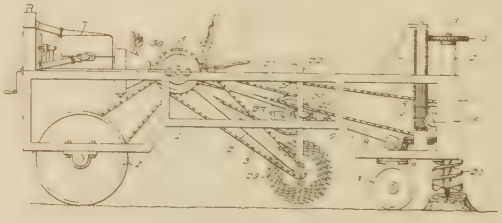
1. A door lock comprising a latch bolt, a wedge member, an arm pivotally mounted on said wedge member and engaging said latch bolt, resilient means engaging said arm for first impelling said latch bolt and then the wedge member outwardly into latching position, and handle mechanisms operable independently of each other for retracting the latch bolt and wedge member against the action of said resilient means.

1,417,424. CALENDAR. SIMPSON THOMAS, Southampton, N. Y. Filed Mar. 10, 1921. Serial No. 451,232. 9 Claims. (Cl. 40—115.)

1. A calendar comprising connected cover plates, and an interposed disc revolubly mounted between the cover plates, the edge of the disc being arranged to protrude beyond the cover plates at one point, and the cover plates being cut away for exposing portions of the disc, the cut away portion of one cover plate being at a different edges from that of the cut away portion of the other cover plate, the disc bearing at one face indicia of sub-

divisions of time and at its opposite face indicia of other sub-divisions of time, each so located on its respective face as to be co-operatively exposed at the cut away portions, and the exposed faces of the cover plates bearing indicia of other sub-divisions of time arranged to co-operate with the indicia of the exposed portions of the disc.

1,417,425. POWER GRUBBER. ELMER THOMPSON, Eau Claire, Wis. Filed Dec. 14, 1920. Serial No. 430,744. 2 Claims. (Cl. 144—3.)



1. An apparatus of the class described comprising a wheeled frame, a motor on the frame, means for connecting the drive wheels of the frame with the motor, a slidably mounted block on the frame, an auger shaft rotatably mounted in the block, a roller gear vertically arranged in the frame, a gear on the shaft engaging said roller gear, a horizontally arranged drum, circular saws carried by the drum, a supporting frame for the drum pivotally mounted in the main frame, means for lowering and raising said frame by the motor and means for rotating the drum and the roller gear and raising the block by the motor.

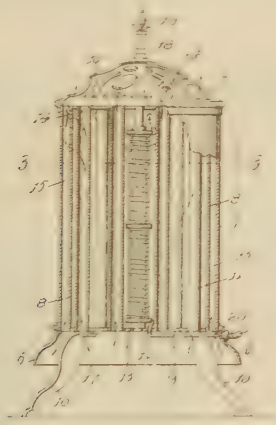
1,417,426. AXLE AND WHEEL CONSTRUCTION FOR POWER-DRIVEN VEHICLES. VIGGO V. TORBENSEN, Cleveland, Ohio, assignor, by mesne assignments, to The Standard Parts Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 18, 1919. Serial No. 311,838. 8 Claims. (Cl. 74—7.)

1. In apparatus of the character described, the combination of a dead-axle, a driven shaft, a wheel structure,

gearing for driving said wheel structure from the driven shaft, a spider rigidly and detachably secured to the dead-

axle and having a central portion projecting beyond said gearing, and outer and inner bearings for the wheel structure carried on said spider outwardly of said gearing.

1,417,427. ELECTRIC HEATER. LAURENCE J. TRACY, St. Louis, Mo.; Jennie O'Leary being administratrix of said Laurence J. Tracy, deceased, assignor, by direct and mesne assignments, of one-fourth to Walter L. Deering, St. Louis, Mo., one-fourth to Charles J. Gevecker and Harry Gevecker, one-tenth to Mary Connell, one-tenth to Margaret Decker, one-tenth to Rebeca McGrane, one-tenth to Jennie O'Leary, one one-tenth to James Tracy. Filed Mar. 11, 1921. Serial No. 451,616. 4 Claims. (Cl. 219—34.)



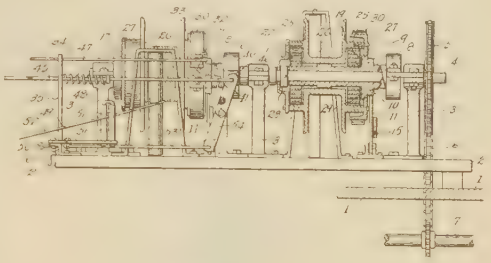
1. An electric heater comprising an outer shell, a drum located in the outer shell and suitably spaced therefrom, a plurality of air circulating flues passing through said drum and a heating unit located centrally in said drum, substantially as specified.

1,417,428. SOLDERING COMPOSITION. ARNOLD TRALIOT, Lexington, Ky. Filed Apr. 2, 1921. Serial No. 458,034. 5 Claims. (Cl. 148—24.)

1. A solder composition composed of aluminum, sulfur, and a plurality of metals melting at low temperatures.

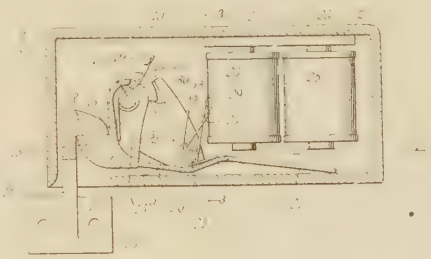
1,417,429. AUTOMATIC REELING DEVICE. THOMAS J. TREW, Seattle, Wash., assignor to King Automatic Troller Co., Seattle, Wash., a Corporation of Washington. Filed Feb. 16, 1920. Serial No. 359,102. 3 Claims. (Cl. 242—85.)

1. An automatic reeling device for trolling lines comprising in combination with a rotatably driven shaft, a sleeve hub rotatably mounted on the shaft, a reel rotatably mounted on the sleeve, a spring coiled about the sleeve and having a fixed connection at one end with the reel and a disconnectable winding connection with the sleeve hub, independently operable means engageable with the sleeve



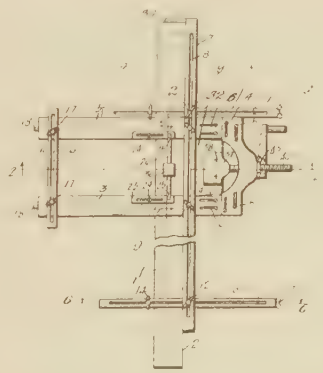
hub to preclude free reverse winding of the reel and means on the shaft engageable with the hub to drive the latter to rotate the reel.

1,417,430. LOCK. DAVID M. TULLOCH, Dunellen, and WILLIAM BODGE, Nutley, N. J., assignors, by mesne assignments, to Bertha L. Armstrong, Dunellen, N. J. Filed Nov. 9, 1920. Serial No. 422,807. 8 Claims. (Cl. 70—50.)



1. In a lock, a bolt, a latch adapted to interlock with said bolt, a device holding said latch in locking position with respect to said bolt, means for releasing said device to permit the retraction of said latch, and means adapted when said latch is retracted to automatically hold said latch in retracted position, said means being adapted to automatically release the latch from its retracted position when said bolt is in interlocking position with respect to said latch.

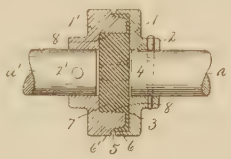
1,417,431. BUTT-INLET-CUTTING DEVICE. AUGUST C. VOGT, Los Angeles, Calif. Filed Jan. 18, 1921. Serial No. 438,171. 4 Claims. (Cl. 144—27.)



1. In a recess cutting device, a vertically disposed slotted bar, a combined supporting and gage plate projecting laterally from the upper end of said bar, a horizontally disposed frame adjustably connected to said slotted bar, means for clamping said frame to the work, a pair of cutting members adjustably arranged in said frame, one of

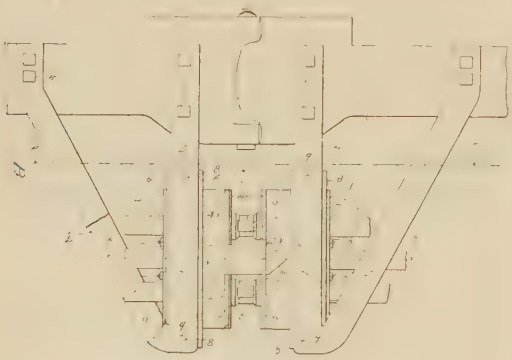
which cutting members is disposed at right angles to the other, a pair of horizontally disposed bars adjustably connected to said slotted bar, and means on said horizontally disposed bars for clamping the same to the work.

1,417,432. SHAFT COUPLING. WILLARD R. WALKER, Syracuse, N. Y., assignor to The Walker Brothers Company, Syracuse, N. Y., a Corporation of New York. Filed Oct. 27, 1920. Serial No. 419,790. 2 Claims. (Cl. 64—96.)



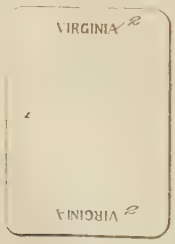
1. A coupling comprising a pair of rotary members arranged end to end in axially spaced relation and provided with substantially circular sockets in their adjacent ends forming annular flanges surrounding the sockets, a disk of resilient material extending into both sockets and seated against the end and peripheral walls thereof, said disk having a series of axially extending openings, and lugs on both of said members projecting into the openings in the disk, the lugs of each member being extended axially into the socket of the other member, the outer faces of the extensions of each member being spaced apart radially from the inner face of the flange of the other member to avoid contact therewith.

1,417,433. AUTOMATIC HOSE COUPLING. WILLIE F. WALL, Bay Shore, Calif. Filed Mar. 24, 1920. Serial No. 368,397. 7 Claims. (Cl. 285—24.)



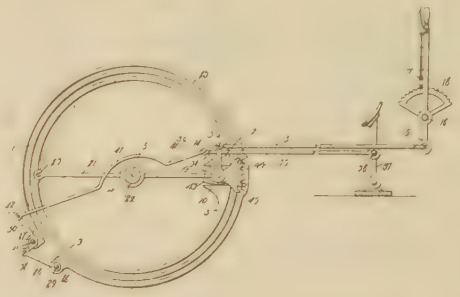
1. A coupling device having casing sections, registrable chamber members thereon, coupling means passing through said members, opposed chamber walls extending from said members and at an angle thereto, and spring means intermediate the chamber walls, and a mounting means for said sections cooperating with said spring means.

1,417,434. EDUCATIONAL APPARATUS. WILLIAM P. WEISS, Bloomsburg, Pa. Filed Mar. 1, 1921. Serial No. 448,813. 3 Claims. (Cl. 46—25.)



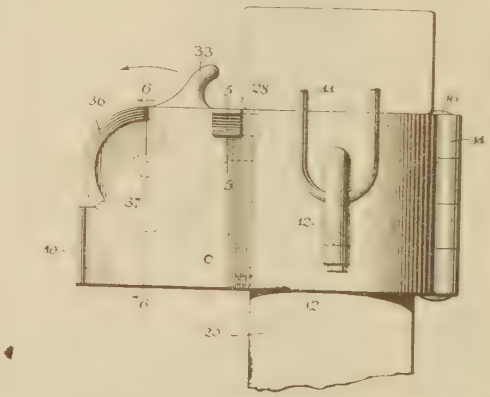
1. An educational card game comprising two decks of playing cards, the cards of one deck each bearing indicia of a State of the Union, or Territory thereof, and the cards of the other deck each bearing indicia of the capital of a State of the Union, or Territory thereof.

1,417,435. BRAKE. JOHN W. WHITE, San Antonio, Tex. Filed Sept. 27, 1918. Serial No. 255,919. 7 Claims. (Cl. 188—140.)



1. In a device of the class described, the combination of a brake drum, inner and outer brake bands carried adjacent said drum and having spaced apart ends, means for applying the outer brake band to said drum, a cam interposed between the ends of the inner brake band, a rack member carried by said outer brake band, a sector shaped rack member connected to said cam and engaging the first mentioned rack member, whereby when the outer brake band is applied to said drum and moves for a distance therewith, said rack members will move to shift the cam to expand the inner brake band, thus causing the inner brake band to be bought into a binding engagement with said drum.

1,417,436. LIFTING DEVICE. LEE WILKINSON, Sour Lake, Tex. Filed Mar. 2, 1921. Serial No. 449,015. 5 Claims. (Cl. 294—90.)



1. A device of the character specified comprising hinged connected sections having radial extensions, and a latch of disk shaped formation arranged between the sections and pivoted to one of the sections, said latch being provided with a laterally projecting arcuate cam adapted to engage one of the sections whereby to separate the sections when the latch is rotated in one direction.

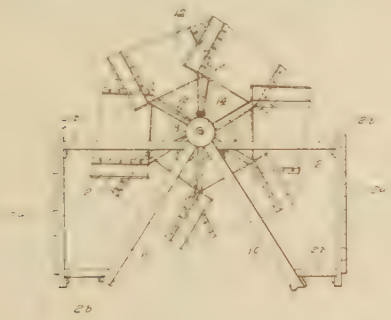
1,417,437. FINGER-GRASPING SAFETY RAZOR. JOHN A. WILLIAMSON, Denver, Colo. Filed July 16, 1921. Serial No. 485,392. 5 Claims. (Cl. 30—12.)

1. A finger grasping safety razor, comprising a single finger grasping plate arranged to be held by the fingers in shaving position, said plate being provided with a support for interchangeable razor blades, means for releasably securing said razor blade in said support, and a movable safety guard for said razor blade, including a housing, for securing the razor blade against displacement therefrom; said support having a wall member, and means for clamping said razor blades against said wall member; said

support consisting of a flat sided channeled member arranged to receive said razor blades against the inside portion wall of its outer side, and a tilting member secured in said channeled member, provided with free ends, one of

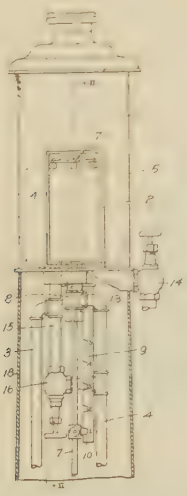
which is arranged to clamp said razor blades against said channeled member's outer side wall and the other is arranged to form a safety guard for the cutting edge of said razor blades.

1,417,438. WINDMILL. EDWIN R. WILSON, Sykes, Mont. Filed Sept. 29, 1920. Serial No. 413,463. 2 Claims. (Cl. 170—10.)



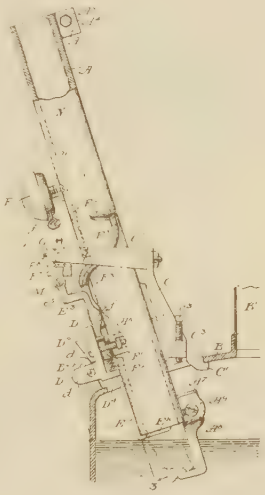
1. A windmill having angularly disposed standards wider apart at their bases than at their upper ends, bearings each mounted by a pair of said standards at their upper ends, a wind wheel having a shaft journaled in said bearings, arms extending outwardly from said standards adjacent to the bearings, arms shorter than and spaced from said arms extending outwardly from said standards, and shields mounted below said shaft by the first and second mentioned arms to prevent undue impingement of the air against said wheel below its axis.

1,417,439. LIQUID-VENDING APPARATUS. FRANK WOODRUFF, Rochester, Pa. Filed Oct. 30, 1920. Serial 420,603. 12 Claims. (Cl. 221—100.)



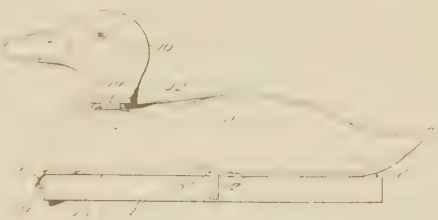
1. In an apparatus for dispensing liquids the combination of a chamber having a normally open overflow port or opening, a valve controlled outlet or discharge port, a displacement body movable to vary the quantity of liquid below the level determined by the overflow.

1,417,440. METAL-FEEDING APPARATUS. HENRY C. ZENKE, Richmond Hill, N. Y., assignor to Simplex Metal Feeder Company, Inc., New York, N. Y., a Corporation of New York. Filed Sept. 5, 1919, Serial No. 321,761. Renewed Aug. 16, 1921. Serial No. 492,872. 4 Claims. (Cl. 22—80.)



2. Metal-feeding apparatus for line-casting machines, comprising a chute for the cold metal and means for feeding it at desired times, a melting pot, and a spider carrying the metal-feeding apparatus, the latter being supported at three points over an opening in the melting pot, one of the points of support being adjustable to vary the angle of inclination of the chute.

1,417,441. DECOY. JOHN QUINCY ADAMS, Hickman, Ky., assignor of one-half to Walter J. McMurry, Hickman, Ky. Filed July 19, 1921. Serial No. 485,813. 4 Claims. (Cl. 43—3.)

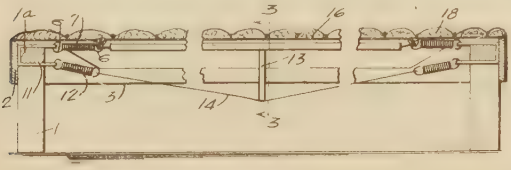


1. The combination in a decoy, of a bar, a body connected with and supporting the bar, said bar spaced from the upper side of the body and being of angular form in cross section, a cable interposed between and connecting one end of said bar and a point on the body remote from the bar, and a head having a slip sleeve, of angular form in cross section, adapted to snugly receive the bar to hold the head in upright position and also adapted to receive the cable when the head is to be swung downwardly on the body.

1,417,442. BOX COUCH. JOSEPH AVRIL, Los Angeles, Calif., assignor of one-half to Lake C. Alexander, Los Angeles, Calif. Filed May 11, 1921. Serial No. 468,599. 5 Claims. (Cl. 5—26.)

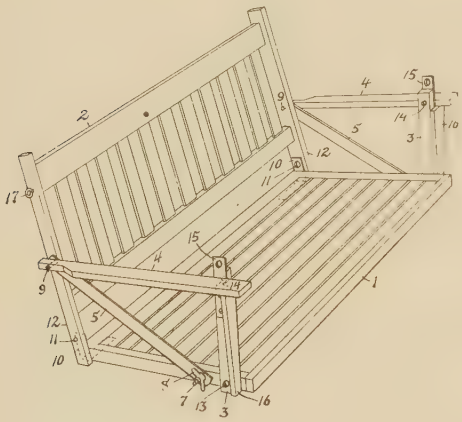
1. In a couch, a frame having end rails, brackets arranged on said end rails, springs secured to the upper portions of said brackets, slats connected to said springs,

a transversely disposed member arranged beneath said slats, springs secured to the lower portions of said



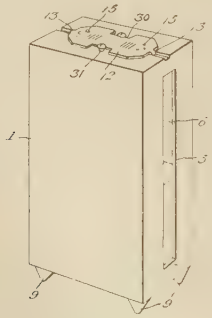
brackets and wires connecting the ends of the last mentioned springs, which wires bear against the under side of said transversely disposed member.

1,417,443. FOLDING SWING CHAIR. JACOB BAUGHER, North Webster, and WILLIAM F. KLINE, South Milford, Ind. Filed June 22, 1921. Serial No. 479,492. 1 Claim. (Cl. 155—68.)



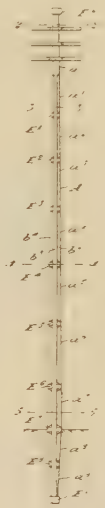
In a folding swing chair, a seat proper having rigidly fixed at each end thereof adjacent its rear edge a bracket, one end of which projects above the plane of the seat; a back proper having pivotal connections respectively with the projecting ends of the brackets; an arm post at each end of the seat pivotally connected at its lower end thereto and having a laterally projecting bracket fixed on its front face; an arm rest in pivotal connection with each post; a perforated plate fixed on each post and arranged between the corresponding post and arm rest; and a brace at each end of the seat having removable connection therewith at one of its ends and having at its opposite end pivotal connection in common with the rear end of the corresponding arm rest and the adjacent end of the back.

1,417,444. CONDIMENT HOLDER. ERNEST F. BLAIR, Warren, Ohio. Filed June 7, 1921. Serial No. 475,693. 1 Claim. (Cl. 65—45.)



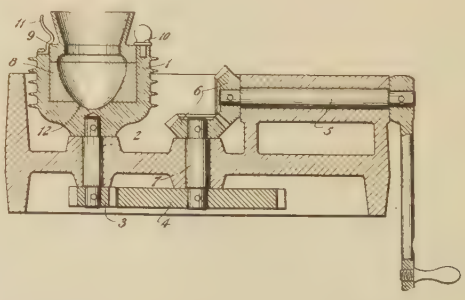
A condiment holder comprising a receptacle having compartments to receive condiments and also having a top in which are holes in communication with the compartments and in the outer side of which are alined grooves, a slidable plate opposed to the outer side of the said top and having pendent ears at its ends movable in said alined grooves, and also having sets of apertures to be moved into and out of registration with the holes in the top and further having recesses in its side edges, and headed screws connected to the top and having shanks arranged in said recesses and adapted to serve as stops.

1,417,445. CONSTRUCTION OF REENFORCED-CONCRETE COLUMNS OR POSTS. FREDERIC WILLIAM BRADSHAW, Perth, West Australia, Australia. Filed Apr. 28, 1920. Serial No. 377,270. 5 Claims. (Cl. 72—85.)



1. A reenforced concrete column comprising a plurality of vertical members of monolithic construction throughout their whole extent symmetrically disposed to form a hollow structure, transverse diaphragms arranged at intervals along the length of the column dividing said vertical members into sections and supporting said sections, and reenforcing means embedded in and extending longitudinally throughout said vertical members and secured to said transverse diaphragms.

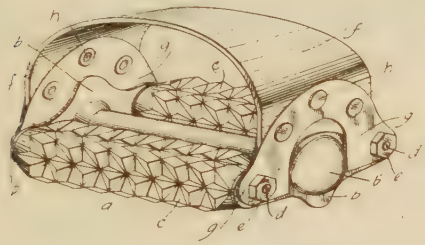
1,417,446. MANUFACTURE OF CONFECTIONS OF THE COATED TYPE. NELSON E. BRIGHAM, Holyoke, Mass., assignor to Conoid Candy Machine Company, South Hadley Falls, Mass., a Copartnership, consisting of Henry M. Chase and Nelson E. Brigham. Filed May 20, 1919, Serial No. 298,513. Renewed Nov. 28, 1921. Serial No. 518,433. 8 Claims. (Cl. 107—1.)



1. The method of forming coated confections of the chocolate cream type, in which a coating is first formed by inserting the material into a mold, then rotating the

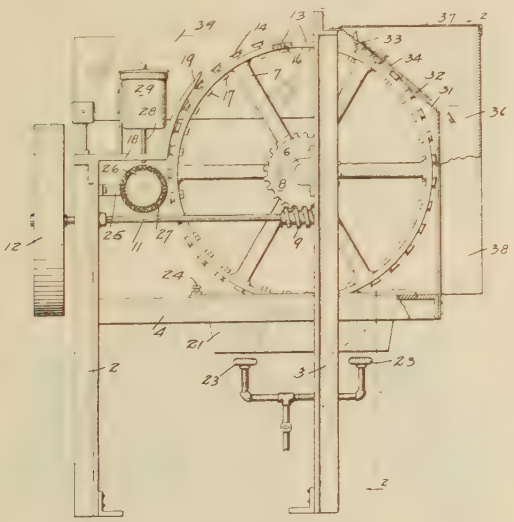
mold, to cause the material to be forced up the inner surface of the same to form part of the coating of the confection, next stopping the rotation of the mold and introducing the filling material, next completing the coating of the confection by adding material on to the filling material and allowing it to unite with the coating first formed whereby the coating is completed and the filling is completely encased.

1,417,447. TOE CLIP. JOSEPH S. BROWN, Portland, Oreg. Filed July 13, 1920. Serial No. 395,889. 4 Claims. (Cl. 208—71.)



1. A toe clip for bicycle pedals comprising a flexible band, a reinforcing plate on each end of the band, said plate being bent upon itself, straddling, and being secured to, the end of the band, the reinforcing plate having a portion cut away so as to be adapted to straddle the end of the pedal spindle, the extremities of the reinforcing plates being perforated for insertion therethrough of the rods supporting the treads of the pedal.

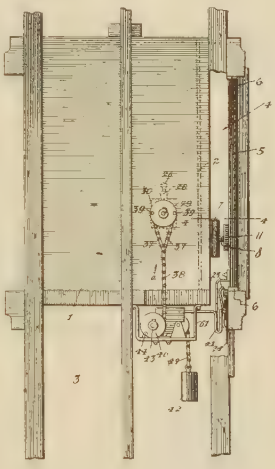
1,417,448. EAR-TINNING MACHINE. WILFORD E. BURNS, San Francisco, Calif., assignor to M. J. Brandenstein & Co., San Francisco, Calif., a Firm composed of Max. J. Brandenstein, Manfred Brandenstein, and Edward Brandenstein. Filed June 12, 1920. Serial No. 388,526. 11 Claims. (Cl. 113—59.)



1. An ear tinning machine comprising a wheel, means for retaining ears on said wheel, a solder bath, means for rotating said wheel to pass the ears therethrough, and a slotted plate for detaching the tinned ears from the wheel.

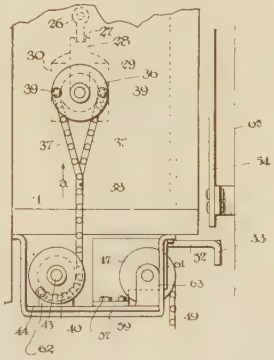
1,417,449. ELEVATOR LOCK. WILLIAM S. CAMPBELL, New Kensington, Pa. Filed Nov. 25, 1919. Serial No. 340,447. 7 Claims. (Cl. 187—49.)

1. In combination, elevator shaft door pivoted locking means connected thereto causing it to gravitate to the operative position when the door is closed, retracted elevator-carried means engageable therewith at the lightest side to release the door upon the approach of the elevator,



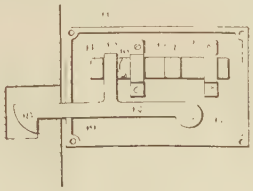
and means operatively associated with the elevator controller for projecting said engaging means on movement of the controller handle to neutral and thereby release said locking means.

1,417,450. ELEVATOR LOCK. WILLIAM S. CAMPBELL, New Kensington, Pa. Original application filed Nov. 25, 1919, Serial No. 340,447. Divided and this application filed Dec. 22, 1920. Serial No. 432,531. 6 Claims. (Cl. 187—49.)



5. An elevator lock, comprising means operatively associated with an elevator controller, assuming a retracted position in respect to the elevator when the controller is out of a neutral position, but projected in respect thereto when the controller is in the neutral position; and an element fixed on an adjacent shaft door, in registration with said means and normally out of engagement, but engageable with said means when said door is opened.

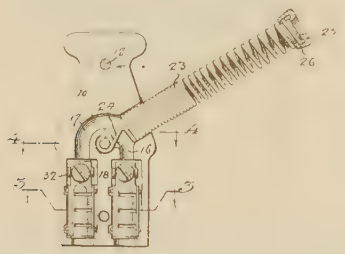
1,417,451. ELEVATOR LOCK. WILLIAM S. CAMPBELL, New Kensington, Pa. Filed Dec. 22, 1920. Serial No. 432,532. 3 Claims. (Cl. 187—61.)



2. Means for locking a shaft door, comprising a casing carried by the shaft door, with a pivoted latch adapted

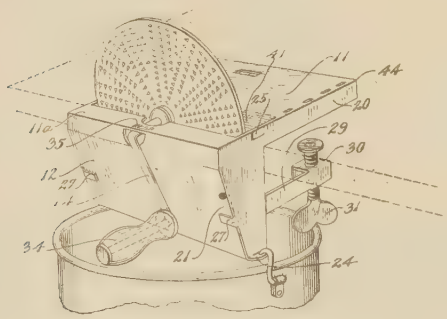
to come into locking engagement with a jamb; adjacent actuating means mounted in the casing engaging a part of the latch and having a projection through a slot in the casing; and means on an elevator door, engageable with the projection when the elevator reaches the shaft door, enabling the concomitant opening of both doors, the initial movement of the elevator door raising the latch from locking engagement through said actuating means.

1,417,452. ATTACHMENT PLUG. HOYT CATLIN, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Apr. 30, 1919. Serial No. 293,703. 8 Claims. (Cl. 173—332.)



1. In an attachment plug fitting or the like, a terminal comprising a pair of opposed straps of like construction recessed in register to form a channel to receive a cooperating stud, and freely interengaged elements at their sides serving to prevent the separation of the straps under the action of an inserted jack.

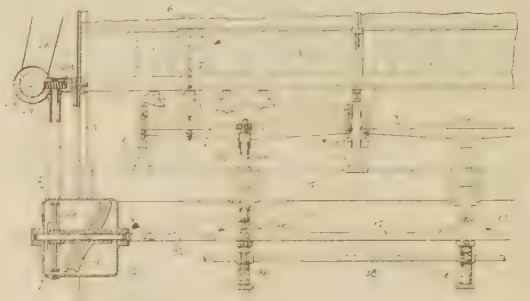
1,417,453. KITCHEN UTENSIL. ROBERT W. CHARLTON, Pineville, La., assignor of one-third to August F. Klumpp and one-third to Arthur R. Chamberlain, Pineville, La. Filed Dec. 4, 1920, Serial No. 428,252. Renewed Apr. 7, 1922. Serial No. 550,514. 7 Claims. (Cl. 146—9.)



3. A kitchen utensil comprising a work table and discharge chute, a tool holding shaft and detachably connected manipulative means therefor arranged transversely of said work table, and a tool removably connected to said shaft, said table engaging the manipulative means to prevent its removal from the utensil when detached from said shaft.

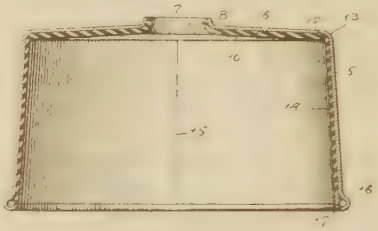
1,417,454. TRAVERSE MECHANISM. JAMES CLAYTON, Sebakwe, Babbacombe, England, assignor to The Viscose Company, Marcus Hook, Pa., a Corporation of Pennsylvania. Filed Oct. 12, 1920. Serial No. 416,534. 7 Claims. (Cl. 118—54.)

1. In a machine of the type described, a series of builder bars, spinning devices supported thereon, a horizontally reciprocating traverse bar common to said series of builder bars, and lifting cams fixed on said traverse bar, said cams being shaped to effect the simultaneous



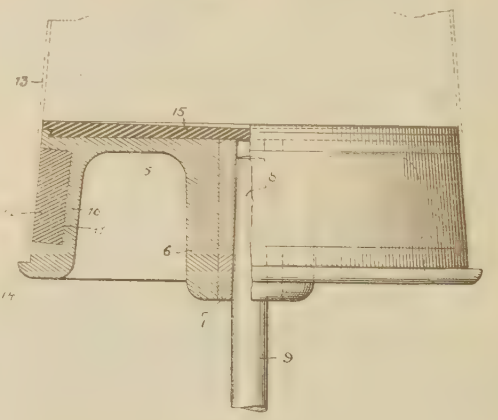
rise and fall of independent builder bars in opposite directions.

1,417,455. SPINNING BOX FOR ARTIFICIAL SILK. JAMES CLAYTON, Sebakwe, Babbacombe, England, assignor to The Viscose Company, Marcus Hook, Pa., a Corporation of Pennsylvania. Filed Nov. 11, 1920. Serial No. 423,315. 8 Claims. (Cl. 118—49.)



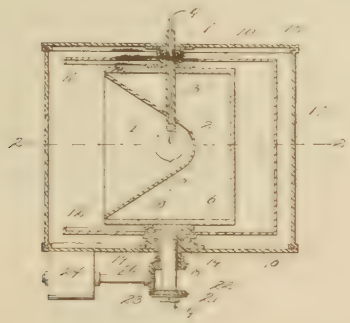
1. A spinning box for use in the manufacture of artificial silk, comprising a metallic box body of truncated cone shape, substantially closed at one end, a lining plate for said closed end, and an independent lining for the side wall of the box.

1,417,456. SPINNING BOX FOR ARTIFICIAL SILK. JAMES CLAYTON, Sebakwe, Babbacombe, England, assignor to The Viscose Company, Marcus Hook, Pa., a Corporation of Pennsylvania. Filed Nov. 11, 1920. Serial No. 423,316. 2 Claims. (Cl. 118—49.)



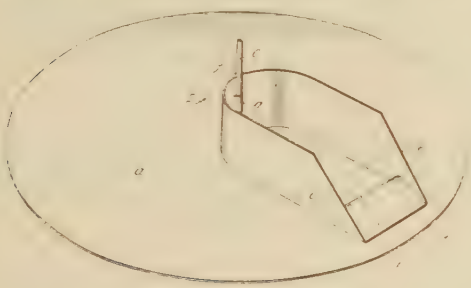
1. In apparatus for spinning artificial silk, a rotary base for a spinning box, said base having a peripheral channel, and an expansible rubber ring lying in said channel and adapted to expand under centrifugal action into gripping engagement with the wall of a box sleeving upon said base, substantially as described.

1,417,457. ELECTRIC ILLUMINATION. WALTER H. COOK, New Orleans, La. Filed June 14, 1920. Serial No. 388,917. 4 Claims. (Cl. 240—49.)



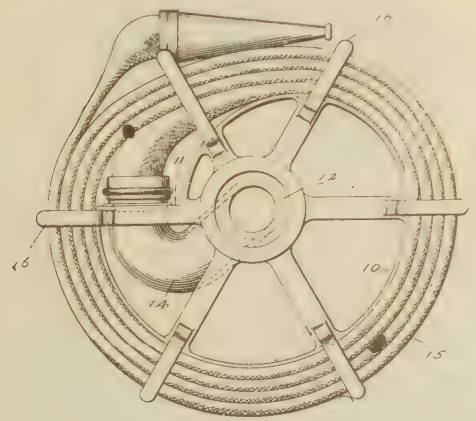
1. An illuminating device comprising a source of light, revoluble means for concentrating such light into a beam and projecting such beam, a revoluble shutter for intermittently intercepting said beam, and means for simultaneously revolving said concentrating and projecting means and shutter in reverse directions.

1,417,458. UNIVERSAL PUTTING DISK. CHARLES B. CORY, Chicago, Ill. Filed Apr. 4, 1921. Serial No. 458,416. 5 Claims. (Cl. 46—4.)



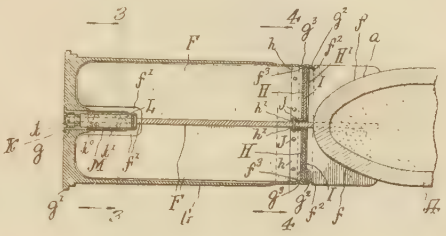
1. In a device of the class described, the combination with a base, of a cup member pivoted thereon on a vertical axis and open at one side, and a retaining member across said open side, for the purpose described.

1,417,459. COMBINED HOSE DRUM AND COUPLING. WILLIAM A. COX, Phoenix, Ariz. Filed Oct. 25, 1920. Serial No. 419,237. 2 Claims. (Cl. 299—78.)



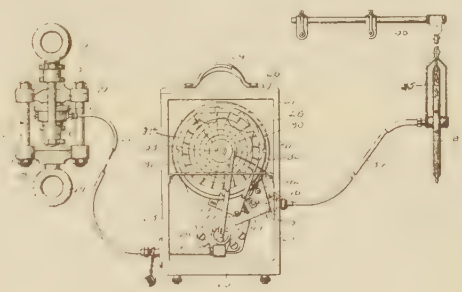
1 A device of the character described comprising a water conducting pipe, a drum rotatable thereon and formed of spiral shape whereby to have a radial shoulder, a conduit formed within said drum and having one end leading to a hole in said shoulder and having its other end communicating with said pipe, and a hose connected within the hole in the shoulder and adapted to be wound upon the drum.

1,417,460. FIXED AMMUNITION. LOUIS L. DRIGGS, Jr., New York, N. Y. Filed Sept. 8, 1920. Serial No. 408,825. 3 Claims. (Cl. 102—12.)



1. Fixed ammunition of the character described, comprising an elongated projectile, a stabilizing tail comprising a plurality of fin plates joined together axially and secured to said projectile, the said fin plates being provided with engaging notches on their exterior near their forward ends, and a cartridge case mounted over said tail and having portions of its forward portion pressed into said notches.

1,417,461. DYNAMOMETER RECORDING INSTRUMENT. CLARENCE M. EASON, Moline, Ill., assignor to Hyatt Bearings Division, General Motors Corporation, Newark, N. J., a Corporation of Delaware. Filed May 20, 1920. Serial No. 382,725. 4 Claims. (Cl. 234—19.)

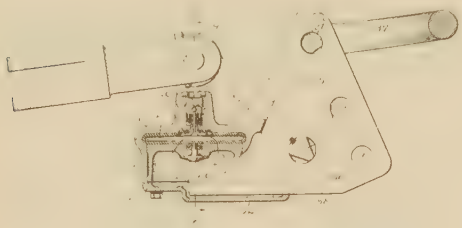


1. In a dynamometer recording instrument, the combination of a dynamometer adapted to transmit variations in pressure, an odometer wheel for measuring units of ground travel, a recording instrument comprising a disk-shaped rotatable record chart, connections between the odometer wheel and the disk-shaped chart for rotating the latter at a speed conformable with the rotation of the odometer wheel, an inscribing instrument movable toward and from the center of the disk-shaped chart for inscribing a record line thereon, a connection between the dynamometer and the inscribing instrument for moving the latter responsively to changes in pressure imparted by the dynamometer, and a time recording instrument movable radially across the face of the chart in fixed time relation for inscribing a time record on the variably movable chart, substantially as described.

1,417,462. DYNAMOMETER. CLARENCE M. EASON, Moline, Ill., assignor to Hyatt Bearings Division, General Motors Corporation, Newark, N. J., a Corporation of Delaware. Filed May 20, 1920. Serial No. 382,726. 6 Claims. (Cl. 265—47.)

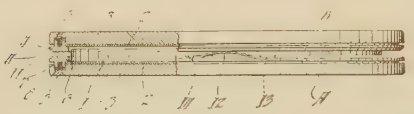
1. In a dynamometer, the combination of a casing provided with a recess, a flexible capsule located within the

recess, means for establishing communication from the interior of the capsule to the exterior of the casing, a draft connection secured to the casing, a plunger slidable within the casing and bearing against the exposed side of the cap-



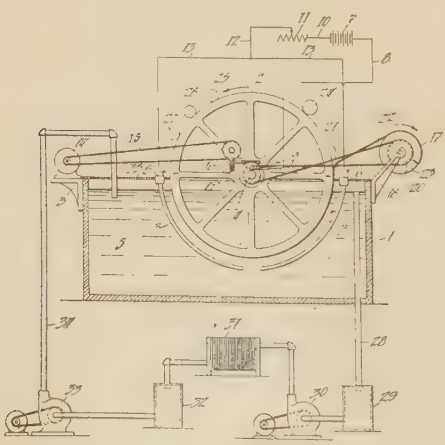
sule, a fulcrum carried by the casing, a bell crank lever mounted upon said fulcrum, and a draft connection for said bell crank lever, adjustable to different positions to vary the lever ratio, substantially as described.

1,417,463. MOLD. THOMAS A. EDISON, West Orange, and CHARLES G. KIRCHER, Irvington, N. J., assignors to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed July 3, 1919. Serial No. 308,380. 12 Claims. (Cl. 18—5.5.)



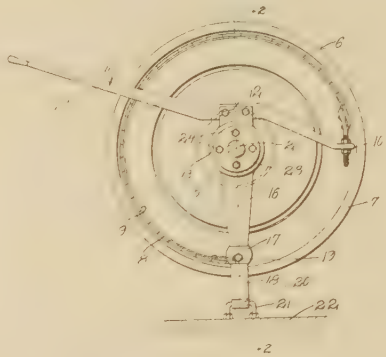
1. A mold die provided with means distinct from any working or molding portion of said die and adapted to coact with a second mold die when said dies are disposed in proper co-operative position to maintain the dies in opposed spaced relation, substantially as described.

1,417,464. PRODUCTION OF THIN METAL SHEETS OR FOILS. THOMAS A. EDISON, Llewellyn Park, West Orange, N. J. Filed July 16, 1920. Serial No. 396,825. 11 Claims. (Cl. 204—6.)



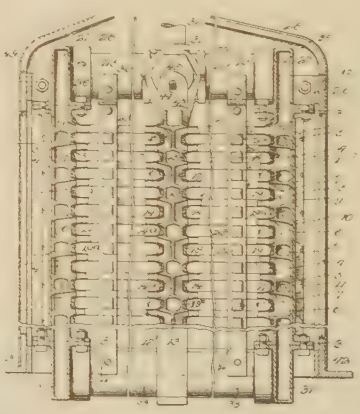
1. The method which consists in continuously moving an electrode of an electrolytic cell capable of plating a metal in an endless path only part of which includes the bath of the cell, and continuously stripping from said electrode at a point in said path without said bath, the metal deposited thereon in the bath, substantially as described.

1,417,465. HOISTING-DRUM CONTROL. LINN D. EKIN, Butler, Pa. Filed Feb. 12, 1921. Serial No. 444,419. 7 Claims. (Cl. 192—17.)



1. In drum control means, a rotatably mounted shaft, a drum loosely mounted on the shaft, a control lever, braking means, and means for securing the drum to the shaft for rotation therewith when the lever is rocked in one direction and for releasing the drum from the shaft when the lever is rocked in the other direction, said lever being extended and secured to said braking means for applying the latter to the drum when the lever is rocked in drum releasing direction and releasing the braking means when the lever is rocked in drum securing direction.

1,417,466. RADIATOR FOR MOTOR VEHICLES. PAUL KUHNE, Chicago, Ill., assignor of one-half to Werner Kuhne, Birmingham, Ala. Filed June 10, 1918, Serial No. 239,201. Renewed June 22, 1921. Serial No. 479,707. 14 Claims. (Cl. 257—131.)



2. A radiator of the class described comprising two vertical end heads and detachable upper and lower hollow end caps each formed with a lateral opening, the end heads having openings between the ports for the passage of air to cool the water passing through the ports, flat tubular members connecting the end heads to form a circuitous passage, a longitudinal re-enforcing rib in each tubular member and crimped into the latter, a pipe connecting and communicating with the lateral openings of the upper caps, a pipe connecting and communicating with the lateral openings of the lower caps, the end heads having openings adjacent the ends of the flat tubular members, and cover plates for closing the latter openings.

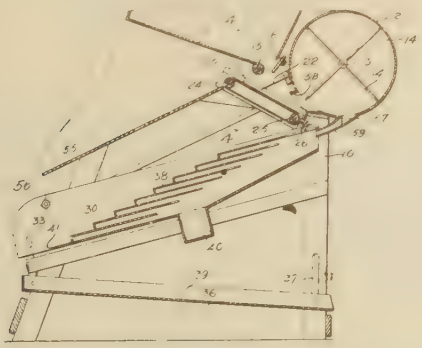
1,417,467. MANUFACTURE OF CORN STARCH AND PRODUCTS THEREFROM. ADOLPH W. H. LENDERS and PAUL W. ALLEN, Cedar Rapids, Iowa, assignors, by mesne assignments, to Penick & Ford, Ltd., Incorporated, a Corporation of Delaware. Filed Nov. 18, 1918. Serial No. 263,026. 16 Claims. (Cl. 127—23.)

16. Improvement in the art of manufacturing a solid saccharine product from corn starch which consists in making soluble and dissolving in water substantially all the residual protein impurity in the starch, separating the starch from the water and dissolved protein, converting the starch and evaporating and crystallizing the entire yield of the conversion step.

1,417,468. LENS-CUTTING MACHINE. LEROY Q. PRESBY, Boston, Mass., assignor to Globe Optical Company, a Corporation of Massachusetts. Filed June 11, 1921. Serial No. 476,934. 2 Claims. (Cl. 33—28.)

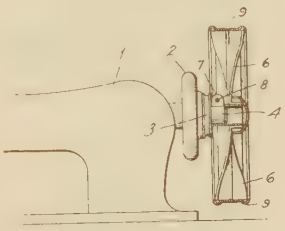
1. In a machine of the kind described, a work support thereon, a bracket mounted on the base and at one side of the work support, studs on said bracket, a lever, and a work clamp adapted to be held and supported by said lever, said lever having cam slots co-operating with the studs on the bracket to limit the clamp to movement in a vertical direction.

1,417,469. FANNING MILL. HERMAN A. STEIN, Georgetown, Minn. Filed July 21, 1921. Serial No. 486,365. 6 Claims. (Cl. 130—15.)



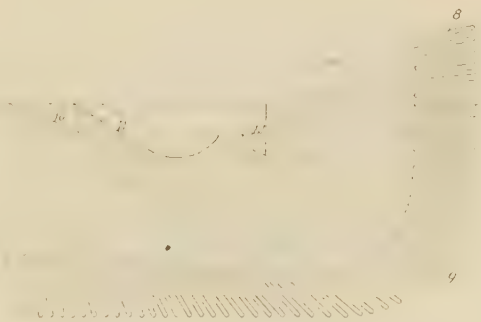
1. A grain cleaner comprising a feed roller, a plurality of grating rods located below the feed roller, a fan for creating an air blast and a flue for directing it up through the forks, a carrier co-operating with the forks to carry the dirt out of the machine, a plurality of overlapping sieves carried by a shaker positioned below said carrier, and a second flue for directing an air blast through them.

1,417,470. FAN FOR SEWING MACHINES. EGIDIO DELIA and VINCENT CORRADO, New York, N. Y. Filed July 27, 1920. Serial No. 399,293. 1 Claim. (Cl. 230—9.)



A sewing machine attachment embodying a fan provided with a split hub adapted to fit over the hub of the fly wheel of the machine, a clamping screw for contracting the hub of the fan to grip the hub of the fly wheel tightly for the purpose of supporting the fan thereon, and a solid, smooth-faced annular band, surrounding the outer ends of the blades of the fan and attached to and carried by said blades, said band being at least as wide as the thickness of the fan so as to completely overlie the fan and serve as a protector to preclude the inadvertent engagement of the hands of the operator with the fan blades.

1,417,471. RECORD-FILING RACK. EARNEST W. LADD, New York, N. Y., assignor to Eleanor V. George, New York, N. Y. Filed Apr. 4, 1921. Serial No. 458,430. 2 Claims. (Cl. 211—16.)

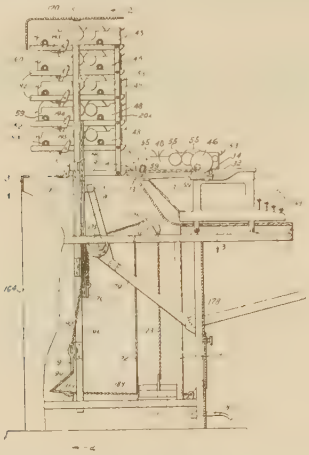


1. In a rack for phonograph records of the disc type, a base, a top, partitions extending inwardly along said base and top a relatively short distance so as to provide an open uninterrupted space beyond the inner edges of said partitions permitting intimate association of the inner edges of records filed adjacent to each other, substantially all of said partitions being arranged out of parallel with each other and extending inwardly from the sides and front of said rack.

1,417,472. TYPEWRITING MACHINE. CLIFFORD W. MARSH, Bridgeport, Conn. Filed Mar. 11, 1921. Serial No. 451,611. 63 Claims. (Cl. 197—126.)

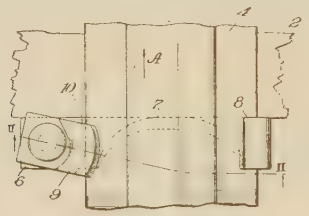
1. The combination with the printing devices of a typewriter having a reciprocating mechanism, of a car-

rier comprising in combination as a unit, a platen, work sheets and transfer material; and means to removably



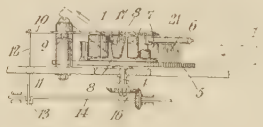
connect said carrier unit with said reciprocating mechanism.

1,417,473. RAIL ANCHOR. EDWIN E. SLICK, Johnstown, Pa. Filed Aug. 9, 1919. Serial No. 316,380. 6 Claims. (Cl. 238—322.)



1. An anticreeping device for rails, comprising a bar having a portion adapted to abut against one side of a tie, and having provision at one end for engaging one side of the base flange of the rail, and a horizontally swinging member on the opposite end of said bar having wedging faces effective on different portions of the base flange of the rail at substantially right angles, substantially as described.

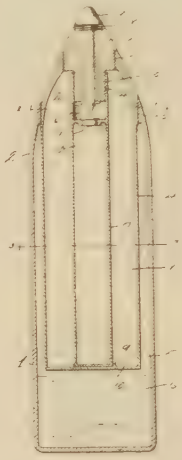
1,417,474. FILM-WINDING DEVICE. WALTER VOLLMANN, Berlin, Germany. Filed Apr. 12, 1922. Serial No. 552,033. 6 Claims. (Cl. 88—18.7.)



1. In moving picture apparatus, the combination of means for progressing an endless film through a closed path and for winding the same on itself in a roll at one point in the path, and means within said roll for momentarily pressing against the innermost winding thereof, at different points therein in succession, to prevent said roll from tightening unduly.

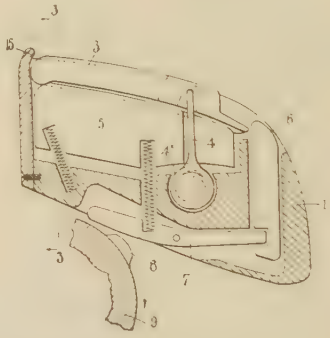
1,417,475. SHELL. THEODORE L. WEEKE, Okawville, Ill. Filed Feb. 28, 1922. Serial No. 539,853. 2 Claims. (Cl. 102—29.)

2. A shell comprising a main casing having its forward end provided with a threaded opening, and intermediate casing threaded into the threaded opening of the main casing and axially disposed within the chamber of the main casing, an inner casing axially disposed within the chamber of the intermediate casing, an annular flange carried by the inner side of the bottom of the intermediate casing and engaging the end of the inner casing, said in-



termediate casing being provided with a threaded opening, a removable nose threaded into the threaded opening of the intermediate casing and a threaded extension carried by said nose and threaded into the end of the inner casing, a firing pin carried by said nose and a firing cap carried by the inner casing in alignment with the firing pin.

1,417,476. SEWING MACHINE. FREDERICK BAKER, Blackheath, England, assignor to Cyril Ernest Hart, Warnford Court, London, England, and Henry Herbert Bunyan, Maidenhead, England. Filed May 10, 1920. Serial No. 380,342. 12 Claims. (Cl. 112—197.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

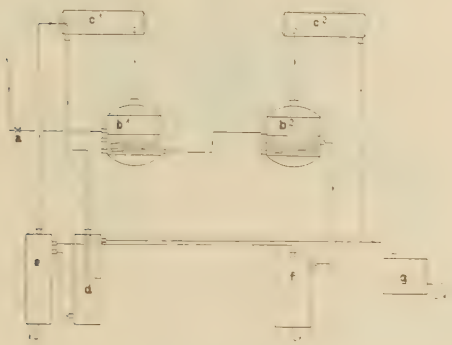


1. In a single thread sewing machine, the combination with a reciprocating needle, and the needle plate, of means located below the needle plate for drawing loops of thread from the needle and a thread loop detainer comprising a loop arresting and detaining member which after arresting a loop becomes shrouded and then without itself moving keeps the arrested loop under tension while the bight is being withdrawn towards the needle until the time of its release.

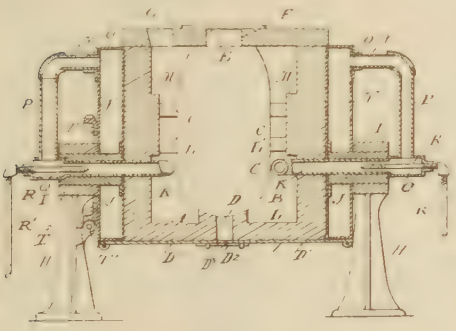
1,417,477. PROCESS OF SEPARATING EXTRACTIVE MATTERS FROM SOLUTIONS OF MIXTURES OF SOLVENTS AND OF RECOVERING THE LATTER. HERMANN BOLLMANN, Hamburg, Germany. Filed Jan. 13, 1922. Serial No. 529,078. 6 Claims. (Cl. 195—15.)

1. An improved process of separating extractive matters from mixed organic liquid mixtures of constant boil-

ing points, such mixtures containing water and volatile organic liquids, and recovering said liquids, which comprises (*a*) evaporating a portion of the solution in a distilling vessel, sufficiently for expelling the greater part at least of the witer with a part of the solvent-mixture, (*b*) separating the distillate into two fractions, of different specific gravities, (*c*) further evaporating the remainder of the solution in a distilling vessel while the vapors are kept separate from those produced in the first evaporation step, and condensing such vapors, and (*d*) combining the second distillate with the lighter of the two liquids separated in step "*b*."



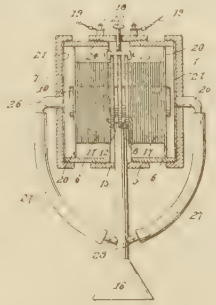
1,417,478. FURNACE. JAMES A. GASKILL, Cleveland, Ohio. Filed May 28, 1920. Serial No. 385,087. 4 Claims. (Cl. 263—13.)



1. A melting furnace comprising a body mounted on trunnions, a crucible spaced therefrom and enclosed therein, tangentially discharging burner nozzles passing through said trunnions, an exterior annular air chamber, a tangential air inlet at the bottom of said chamber, downwardly directed air outlet pipes communicating with the top of said chamber, mixing chambers into which said downwardly directed air pipes discharge, said tangentially discharging nozzles communicating with said mixing chambers, said fuel nozzles discharging within said mixing chambers.

1,417,479. TELEPHONE RECEIVER. SIGMUND HONIG, New York, N. Y. Filed July 19, 1920. Serial No. 397,437. 18 Claims. (Cl. 179—119.)

1. In a loud talking telephone received, a pair of diaphragms, means for vibrating same including horse shoe magnets and pole extensions therefor, each end of said extensions being associated with one of said diaphragms, an ear piece, and sound conducting means connected to



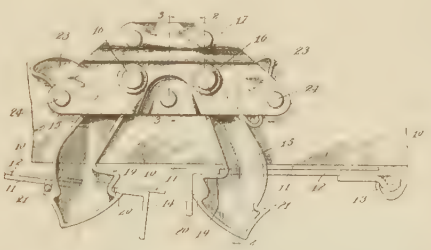
said ear piece and communicating with opposite sides of both of said diaphragms.

REISSUES.

15,359. CAP FOR VALVE TUBES. DAVID H. COX, Roselle, N. J. Filed Apr. 11, 1922. Serial No. 551,661. Original No. 1,392,746, dated Oct. 4, 1921, Serial No. 456,073, filed Mar. 28, 1921. 7 Claims. (Cl. 152—12.)

1. A cap for tire valve tubes constructed of a material having a lower coefficient of hardness than the tube and provided with a smooth surfaced bore provided at its inner end with a yielding cushion to form a seat for the end of a valve tube.

15,360. RAILWAY CAR. WILLIAM F. CREMEAN, Toledo, Ohio, assignor to The Wine Railway Appliance Company, a Corporation of Ohio. Filed Mar. 9, 1922. Serial No. 542,494. Original No. 1,336,134, dated Apr. 6, 1920, Serial No. 294,369. filed May 3, 1919. 19 Claims. (Cl. 105—308.)

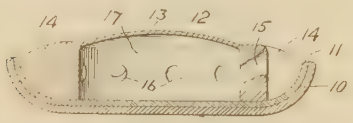


1. A drop bottom car door supporting device, comprising a pivoted hook, said hook provided with an auxiliary ledge for supporting the door in a temporary partly closed position and said hook further provided with a main supporting ledge for holding the door in its final closed position.

15,361. ASH TRAY. JOHN P. GRIFFIN, Waddington, N. Y., assignor to Griffin Choker Ash Tray Inc., Dover, Del., a Corporation of Delaware. Filed Nov. 16, 1921. Serial No. 515,730. Original No. 1,342,805, dated June 8, 1920, Serial No. 300,020, filed May 27, 1919. 3 Claims. (Cl. 131—51.)

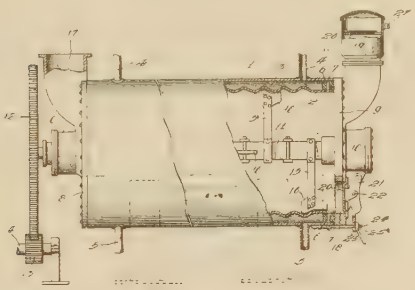
3. An ash tray comprising a base member providing a dish shaped recess and a ring member loosely seated

within said recess and engaging the walls thereof and provided with a plurality of downwardly tapered perforations extending through the ring member and opening



into said recess and adapted to receive the lighted end of cigarettes, said ring member being relatively heavy to retain it in position in the recess in the base member.

15,362. FERTILIZER DRIER. PETER J. HAMLER, deceased, late of Chicago, Ill., by Jerome P. Hamler, Chicago, Ill., assignee. Filed Feb. 14, 1921. Serial No. 444,880½. Original No. 1,321,628, dated Nov. 11, 1919, Serial No. 300,353, filed May 28, 1919. 6 Claims. (Cl. 34—7.)



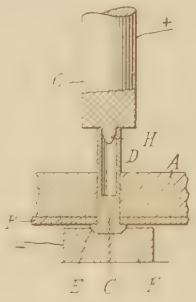
1. In an apparatus of the class described, the combination with an outer cylinder, an inner inclosed annularly corrugated cylinder, and an intermediate spacing-ring at each end of said cylinder, of opposite heads bolted to the outer faces of the rings and provided with bearings, an agitator-shaft mounted for rotation in the bearings, agitator-arms radiating from the shaft, and blades carried by said arms and having their outer edges curved to conform to the corrugations of the inner cylinder and positions in close proximity therewith.

15,363. CURLER. KATHERINE MCCLAIRE, Chicago, Ill. Filed Mar. 3, 1922. Serial No. 540,882. Original No. 1,397,532, dated Nov. 22, 1921, Serial No. 476,081, filed June 8, 1921. 8 Claims. (Cl. 132—43.)

1. A curler comprising a bar of soft copper of substantial size, circular in shape, a tube of flexible material surrounding said bar, the ends of said tube stitched together and securely tied and said ends extending beyond the stitched portion.

15,364. ELECTRICAL RIVETING. ALBERT B. RYPINSKI, Brooklyn, N. Y., assignor to Thomas E. Murray, New York, N. Y. Filed Jan. 20, 1921. Serial No. 438,761. Original No. 1,329,144, dated Jan. 27, 1920, Serial No. 319,917, filed Aug. 26, 1919. 12 Claims. (Cl. 219—2.)

1. The method of uniting a metal plate to a non-metal plate, which consists in forming registering openings in both plates, inserting in said openings a tubular metal rivet with its head in contact with said metal plate and its shank protruding beyond said non-metal plate, placing said plates and rivet between electrodes, establishing current through said rivet to heat and soften the pro-



truding portion of said shank, and compressing said portion while so softened to form a head in contact with said non-metal plate.

DESIGNS.

60,972. EMBROIDERED LACE. JEAN AEMISEGGER, West New York, N. J., assignor to Inflexible Co., West New York, N. J. Filed Nov. 18, 1921. Serial No. 516,217. Term of patent 3½ years.

The ornamental design for an embroidered lace substantially as shown.

60,973. HOLDER FOR ASH TRAYS OR SIMILAR ARTICLES. FRANK M. ARCHER, Brookline, Mass., assignor to The Moxie Company, Boston, Mass., a Corporation of Maine. Filed Apr. 26, 1921. Serial No. 464,697. Term of patent 14 years.

The ornamental design for a holder for ash trays or similar articles, as shown.

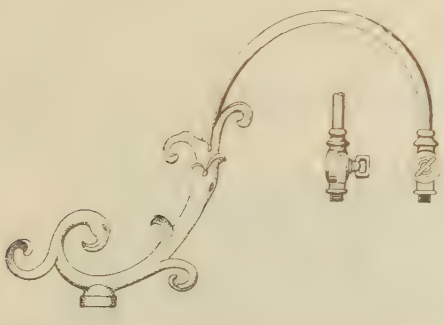
60,974. TOY SADDLE HORSE. WALTER E. BARTHOLOMEW, Niles, Mich. Filed Jan. 14, 1921. Serial No. 437,366. Term of patent 7 years.

The ornamental design for a toy saddle horse as shown.

60,975. ARM FOR LIGHTING FIXTURES. MICHAEL B. BOWEN, Decatur, Ill., assignor to Faries Manufacturing Company, Decatur, Ill., a Corporation of Illinois. Filed Oct. 14, 1921. Serial No. 507,801. Term of patent 7 years.

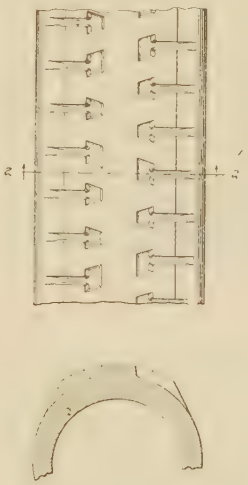
The ornamental design for an arm for lighting fixtures, as shown.

60,976. ARM FOR LIGHTING FIXTURES. MICHAEL B. BOWEN, Decatur, Ill., assignor to Faries Manufacturing Company, Decatur, Ill., a Corporation of Illinois. Filed Oct. 14, 1921. Serial No. 507,802. Term of patent 7 years.



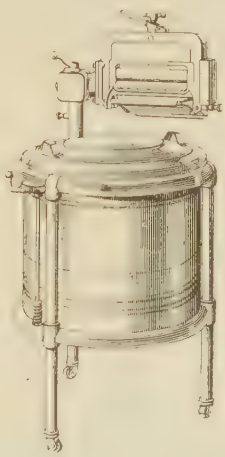
The ornamental design for an arm for lighting fixtures, as shown.

60,977. TIRE TREAD. JOHN C. BROWN and LOUIS E. KRAFT, Fort Wayne, Ind., assignors to Fort Wayne Tire & Rubber Manufacturing Company, Fort Wayne, Ind., a Corporation of Indiana. Filed Mar. 26, 1920. Serial No. 369,103. Term of patent 3½ years.



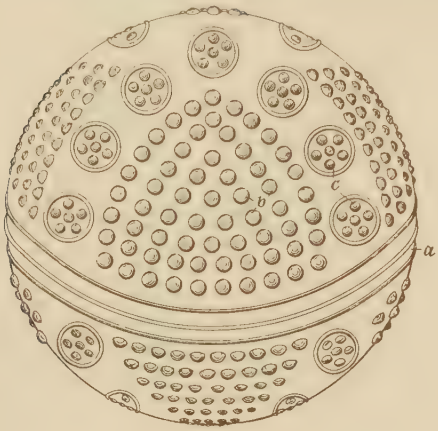
The ornamental design for a tire tread as shown.

60,978. COMBINATION WASHING-MACHINE TUB AND FRAME. FRANCIS M. CASE, Cleveland, Ohio, assignor, by mesne assignments, to The Foote-Burt Company, a Corporation of Ohio. Filed Oct. 20, 1921. Serial No. 509,188. Term of patent 14 years.



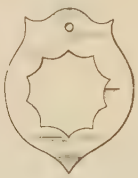
The ornamental design for a combination washing machine tub and frame, as shown.

60,979. TOY BALL. FRANK A. CIGOL, Paterson, N. J. Filed Sept. 29, 1921. Serial No. 504,264. Term of patent 14 years.



The ornamental design for a toy ball, as shown and described.

60,980. BROOM AND MOP HANGER. JOSEPH L. CLEMENTS, Birmingham, Ala. Filed Nov. 7, 1921. Serial No. 513,607. Term of patent 3½ years.



The ornamental design for a broom and mop hanger substantially as shown.

60,981. LIGHTING FIXTURE. THURE DAHL, New York, N. Y., assignor to Lightolier Company, a Corporation of New York. Filed Dec. 30, 1920. Serial No. 434,156. Term of patent 7 years.

The ornamental design for a lighting fixture as shown.

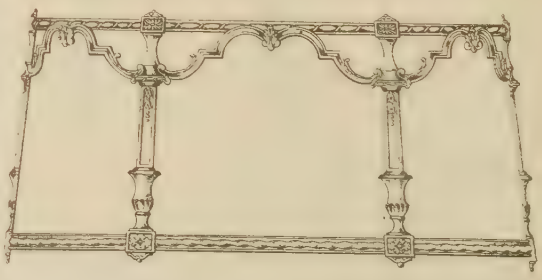
60,982. CANOPY FOR LIGHTING FIXTURES. THURE DAHL, New York, N. Y., assignor to Lightolier Company, a Corporation of New York. Filed Dec. 30, 1920. Serial No. 434,157. Term of patent 3½ years.

The ornamental design for a canopy for lighting fixtures as shown.

60,983. BODY FOR LIGHTING FIXTURES. THURE DAHL, New York, N. Y., assignor to Lightolier Company, a Corporation of New York. Filed Dec. 30, 1920. Serial No. 434,159. Term of patent 3½ years.

The ornamental design for a body for lighting fixtures as shown.

60,984. SHADE FRAME FOR LIGHTING FIXTURES. THURE DAHL, New York, N. Y., assignor to Lightolier Company, a Corporation of New York. Filed Dec. 30, 1920. Serial No. 434,160. Term of patent 3½ years.

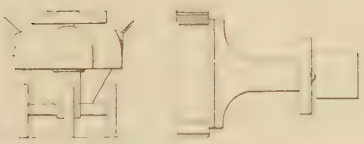


The ornamental design for a shade frame for lighting fixtures as shown.

60,985. FINGER RING. SARAH GLASER, Boston, Mass., assignor to Glaser Bros., Boston, Mass., a Corporation of Massachusetts. Filed Feb. 2, 1922. Serial No. 506. Term of patent 7 years.

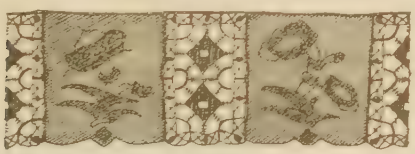
The ornamental design for a finger ring as shown.

60,986. TOY TRUCK. CLARENCE A. GUSTAVESON, Whitewater, Wis. Filed Oct. 8, 1920. Serial No. 415,710. Term of patent 3½ years.



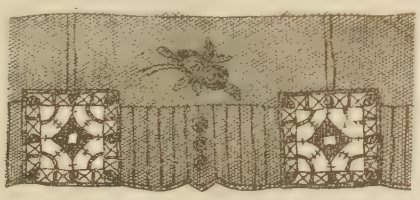
The ornamental design for a toy truck, as shown.

60,987. EMBROIDERY, LACE, OR ARTICLE OF SIMILAR NATURE. FRANZ HOENIG, New York, N. Y., assignor to Tobler & Hoenig, New York, N. Y., a Firm composed of Franz Hoenig and Walter R. Tobler. Filed Feb. 10, 1922. Serial No. 640. Term of patent 3½ years.



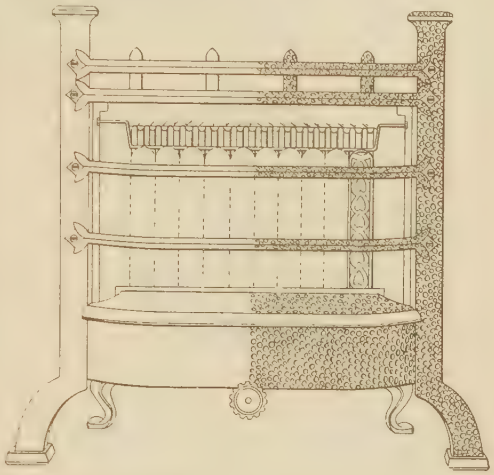
The ornamental design for embroidery, lace, or article of similar nature, as shown.

60,988. EMBROIDERY, LACE, OR ARTICLE OF SIMILAR NATURE. FRANZ HOENIG, New York, N. Y., assignor to Tobler & Hoenig, New York, N. Y., a Firm composed of Franz Hoenig and Walter R. Tobler. Filed Feb. 10, 1922. Serial No. 641. Term of patent 3½ years.



The ornamental design for embroidery, lace, or article of similar nature as shown.

60,989. GAS HEATER. HUBERT R. HUMPHREY, Kalamazoo, Mich. Filed Sept. 27, 1921. Serial No. 503,622. Term of patent 14 years.

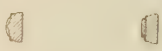


The ornamental design for a gas heater, as shown.

60,990. CHRISTENING CARD. WILLIAM JANICKI, Chicago, Ill. Filed Mar. 14, 1921. Serial No. 452,330. Term of patent 3½ years.

The ornamental design for a christening card as shown.

60,991. PIN, BROOCH, BRACELET, FINGER RING, OR ARTICLE OF SIMILAR NATURE. SAMUEL KLEINMAN, Los Angeles, Calif. Filed June 15, 1921. Serial No. 477,836. Term of patent 3½ years.



The ornamental design for a pin, brooch, bracelet, finger ring, or article of similar nature, substantially as shown and described.

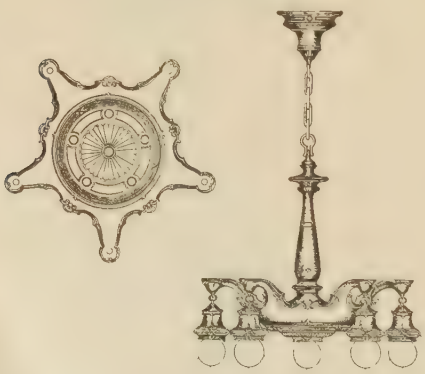
60,992. SEAL, MEDALLION, BUTTON, AND SCARF-PIN. EDWARD A. MARSH, Newton, Mass., assignor to Horological Institute of America, Washington, D. C., a Corporation of the District of Columbia. Filed Dec. 19, 1921. Serial No 523,570. Term of patent 3½ years.

The ornamental design for a seal, medallion, button, and scarfpin, as shown.

60,993. RING. THOMAS M. OBSBOUM, Chicago, Ill. Filed Jan. 15, 1919. Serial No. 271,330. Term of patent 3½ years.

The ornamental design for a ring, as shown.

60,994. CHANDELIER. FREDERICK MAX PORITZ, New York, N. Y., assignor to Star Chandelier Company, Inc., New York, N. Y., a Corporation of New York. Filed Aug. 12, 1921. Serial No. 491,865. Term of patent 3½ years.



The ornamental design for a chandelier as shown.

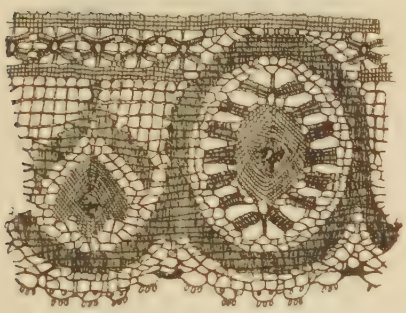
60,995. CHANDELIER. FREDERICK MAX PORITZ, New York, N. Y., assignor to Star Chandelier Company, Inc., New York, N. Y., a Corporation of New York. Filed Aug. 13, 1921. Serial No. 492,164. Term of patent 3½ years.

The ornamental design for a chandelier, as shown.

60,996. CHANDELIER. FREDERICK MAX PORITZ, New York, N. Y., assignor to Star Chandelier Company, Inc., New York, N. Y., a Corporation of New York. Filed Aug. 13, 1921. Serial No. 492,165. Term of patent 3½ years.

The ornamental design for a chandelier, as shown.

60,997. LACE. GEORGE RADFORD, Oakland Beach, R. I., assignor to Richmond Lace Works, Alton, R. I., a Corporation of Maine. Filed Feb. 18, 1922. Serial No. 763. Term of patent 3½ years.

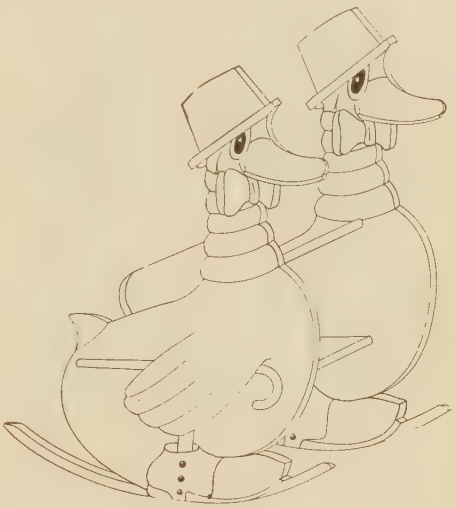


The ornamental design for lace, as shown.

60,998. CABINET UNIT. JAMES H. RAND, Jr., Tonawanda, N. Y., assignor to American Kardex Company, Tonawanda, N. Y. Filed May 27, 1920. Serial No. 384,740. Term of patent 14 years.

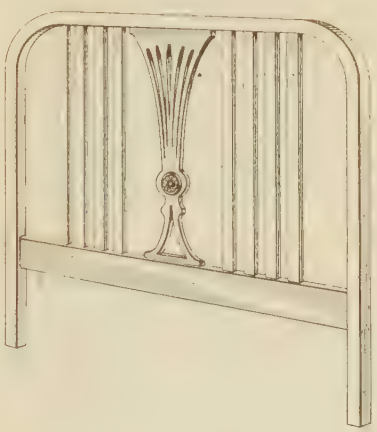
The ornamental design for a cabinet unit, substantially as shown.

60,999. TOY. ROBERT L. ROBERTS, Sacramento, Calif. Filed Sept. 21, 1921. Serial No. 502,311. Term of patent 3½ years.



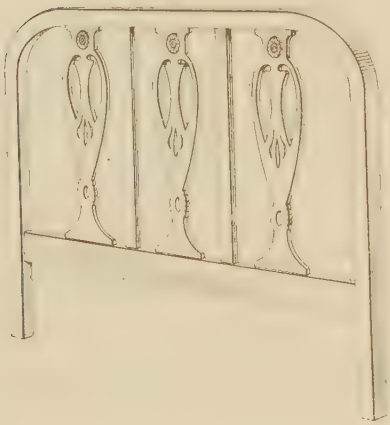
The ornamental design for a toy, as shown.

61,000. BEDSTEAD END FRAME. ERNEST L. ROSENBURGH, Rome, N. Y., assignor to Rome Metallic Bedstead Company, Rome, N. Y., a Corporation of New York. Filed July 14, 1921. Serial No. 484,770. Term of patent 7 years.



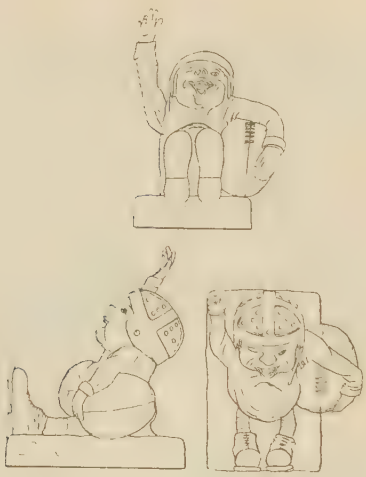
The ornamental design for a bedstead end-frame as shown.

61,001. BEDSTEAD END FRAME. ERNEST L. ROSENBURGH, Rome, N. Y., assignor to Rome Metallic Bedstead Company, Rome, N. Y., a Corporation of New York. Filed July 14, 1921. Serial No. 484,771. Term of patent 7 years.



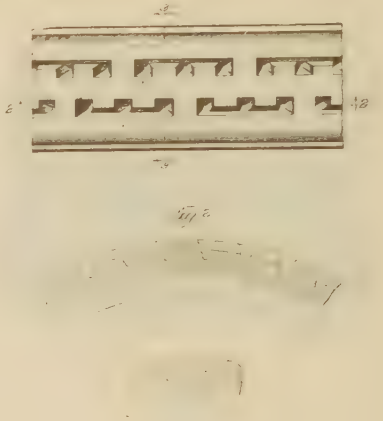
The ornamental design for a bedstead end-frame as shown.

61,002. DOLL. ADA S. SIMMONS, Kansas City, Mo., assignor of one-half to Marguerite M. Zimmerman, Kansas City, Mo. Filed Nov. 16, 1921. Serial No. 515,719. Term of patent 3½ years.



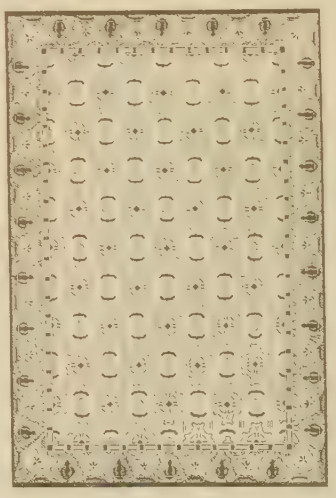
The ornamental design for a doll, as showu.

61,003. RESILIENT TIRE. JOHN C. TUTTLE, Akron, Ohio, assignor to The Firestone Tire and Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed Dec. 21, 1920. Serial No. 432,363. Term of patent 14 years.



The ornamental design for a resilient tire, as shown.

61,004. RUG. ALGERMONT H. WALDO, St. Paul, Minn., assignor to Crex Carpet Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 27, 1921. Serial No. 525,261. Term of patent 3½ years.

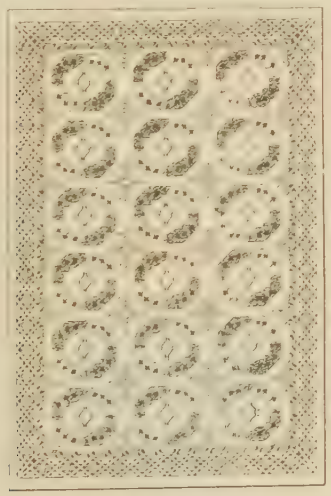


The ornamental design for a rug, as shown.

61,005. RUG. ALGERMONT H. WALDO, St. Paul, Minn., assignor to Crex Carpet Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 27, 1921. Serial No. 525,262. Term of patent 3½ years.

The ornamental design for a rug, as shown.

61,006. RUG. ALGERMONT H. WALDO, St. Paul, Minn., assignor to Crex Carpet Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 27, 1921. Serial No. 525,263. Term of patent 3½ years.

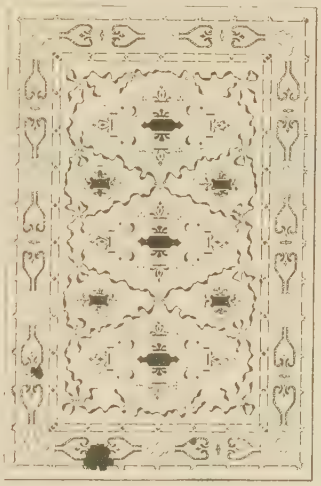


The ornamental design for a rug, as shown.

61,007. RUG. ALGERMONT H. WALDO, St. Paul, Minn., assignor to Crex Carpet Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 27, 1921. Serial No. 525,264. Term of patent 3½ years.

The ornamental design for a rug, as shown.

61,008. RUG. ALGERMONT H. WALDO, St. Paul, Minn assignor to Crex Carpet Company, New York, N. Y., Corporation of Delaware. Filed Dec. 27, 1921. Seria No. 525,265. Term of patent 3½ years.



The ornamental design for a rug, as shown.

TRADE-MARKS

OFFICIAL GAZETTE, MAY 23, 1922.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this publication.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 114,428. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN E. DE VAN, Baltimore, Md. Filed Nov. 30, 1918.

No claim is made to the words "Aromatic" and "Tablets" nor to the word "Dyspepsia" apart from the association shown.

Particular description of goods.—Tablets to be Used for Indigestion.

Claims use since Nov. 1, 1918.

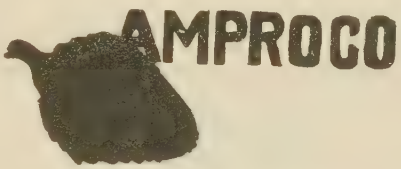
Ser. No. 124,325. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HERBERT ALEXANDER WANKLYN, trading as The Peace Pillow Co., London, England. Filed Oct. 29, 1919.

The lining representing the colors, red, orange, and black are indicated.

Particular description of goods.—Eau de Cologne.

Claims use since November, 1914.

Ser. No. 127,792. (CLASS 15. OILS AND GREASES.) AMERICAN PINE PRODUCTS CORPORATION, New York, N. Y. Filed Jan. 31, 1920.



Particular description of goods.—Flotation Oil.

Claims use since January, 1917.

Ser. No. 128,764. (CLASS 39. CLOTHING.) THE DEFIANCE WELDING COMPANY, Defiance, Ohio. Filed Feb. 24, 1920.

INVINCIBLE

Particular description of goods.—Acid-Resisting Garments Formed of Rubberized Cloth—Viz., Aprons, Sleeves, and Leggings.

Claims use since Feb. 20, 1919.

Ser. No. 131,848. (CLASS 39. CLOTHING.) THE WESTERN SHIRT COMPANY, New York, N. Y. Filed Apr. 29, 1920.

Particular description of goods.—Work Shirts.

Claims use since Jan. 1, 1920.

Ser. No. 134,650. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALEXIS JOURION, Brussels, Belgium. Filed July 7, 1920.

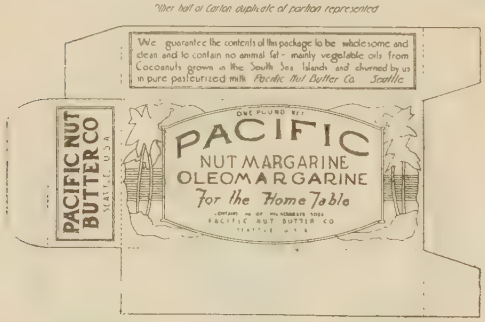
The portrait on trade-mark is fanciful.
Particular description of goods.—Perfumery.
Claims use since December, 1919.

Ser. No. 139,262. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRIETTE GABILLA, Paris, France. Filed Nov. 6, 1920.

MON CHÉRI

Particular description of goods.—Toilet Preparations, Including Perfumery Extract, Toilet Waters, Face Powder, Sachet Powder, Skin Lotion Vegetale, Eau de Cologne, Hair Dressing, Talcum Powder, Eau de Dentifrice, and Rouge.
Claims use since Sept. 10, 1910.

Ser. No. 139,750. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PACIFIC NUT BUTTER COMPANY, Salt Lake City, Utah. Filed Nov. 17, 1920.


Other half of Carton duplicate of portion represented
We guarantee the contents of this package to be wholesome and clean and to contain no animal fat - mainly vegetable oils from Cocoanuts grown in the South Sea Islands and churned by us in pure pasteurized milk Pacific Nut Butter Co. Seattle
ONE POUND NET
PACIFIC
NUT MARGARINE
OLEOMARGARINE
For the Home Table
PACIFIC NUT BUTTER CO
SEATTLE U.S.A.

No claim being made to the exclusive use of the representation of the container of the goods or to the reading matter shown on the drawing with the exception of the word "Pacific" apart from the mark shown on the drawing.
Particular description of goods.—Oleomargarine.
Claims use since Sept. 27, 1920.

Ser. No. 139,955. (CLASS 37. PAPER AND STATIONERY.) J. W. BUTLER PAPER COMPANY, Chicago, Ill. Filed Nov. 22, 1920.

PILOT COVER

No claim being made for the word "Cover" independently of the trade-mark as shown.
Particular description of goods.—Cover Paper.
Claims use since June 13, 1919.

Ser. No. 140,009. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) H. A. BAKER, INC., Sumner, Wash. Filed Nov. 23, 1920.

SUNBURST

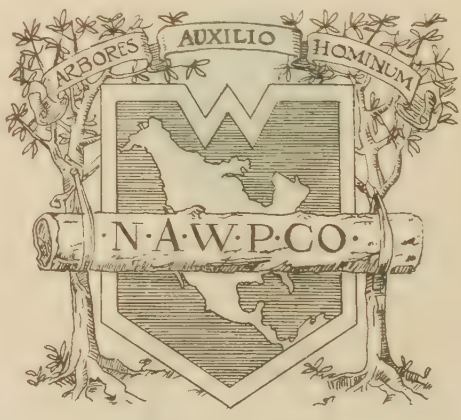
Particular description of goods.—Canned Fruits and Canned Vegetables.
Claims use since May 1, 1920.

Ser. No. 141,766. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ETHEL E. DAVIS, Boston, Mass. Filed Jan. 3, 1921.

Ethel E. Davis.

Particular description of goods.—Liniment for Rheumatism.
Claims use since October, 1920.

Ser. No. 141,796. (CLASS 12. CONSTRUCTION MATERIALS.) NORTH AMERICAN WOOD PRODUCTS CORPORATION, New York, N. Y. Filed Jan. 3, 1921.



Particular description of goods.—Wall Board, Blinds, Doors, Windows, Frames for Doors and Windows, Casings, Moldings, Mantels, Stairs; Wardrobes, Buffets, Bookcases, Cabinets, Desks, Drawer Cases, and Window Seats, Shipped in Sections to be Built in or Made Part of the Building; Partitions, Sash, Veneers, Lumber, Timbers, Shutters, Panels, Prepared Roofing, and Portable Houses.
Claims use since Nov. 3, 1920.

Ser. No. 141,925. (CLASS 39. CLOTHING.) THE REPUBLIC RUBBER CORPORATION, Youngstown, Ohio. Filed Jan. 6, 1921.

OAK-IDE

Particular description of goods.—Shoe Soles and Heels Made of Rubber or of Composition Rubber.
Claims use since Dec. 10, 1920.

Ser. No. 142,034. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) RUBBER WELD CO., Boston, Mass. Filed Jan. 10, 1921.

Particular description of goods.—Repair Outfits Comprising Patches of Sheet Rubber and Adhesive Material.
Claims use since Dec. 1, 1920.

Ser. No. 142,471. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) RALPH B. CARTER COMPANY, New York, N. Y. Filed Jan. 20, 1921.

HUMDINGER

Particular description of goods.—Diaphragm Pumps.
Claims use since Dec. 15, 1920.

Ser. No. 143,386. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) FORT WAYNE ENGINEERING & MANUFACTURING CO., Fort Wayne, Ind. Filed Feb. 10, 1921.

Particular description of goods.—Deep-Well Pumps, Suction Pumps, and Displacement Pumps, and Parts Thereof.
Claims use since May 1, 1908.

Ser. No. 144,245. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS. THE NORTH AMERICAN HYGIENIC COMPANY, INC., San Juan, Porto Rico. Filed Mar. 2, 1921.

KLINODENTO

Particular description of goods.—Dentifrice in Paste Form.
Claims use since Oct. 19, 1920.

Ser. No. 144,744. (CLASS 37. PAPER AND STATIONERY.) HENRY A. SCHMIDT, College Point, N. Y. Filed Mar. 14, 1921.

EVER-FLO

Particular description of goods.—Stylographic Ink Pencils.
Claims use since Feb. 17, 1921.

Ser. No. 144,756. (CLASS 12. CONSTRUCTION MATERIALS.) UNITED STATES FIBER PRODUCTS COMPANY, Sacramento, Calif. Filed Mar. 14, 1921.

THERMASTOP

Particular description of goods.—A Fibrous Cellular Material in Sheet Form Consisting Principally of Fiberized Cereal Straw and Used as Heat-Insulating Material, Sound-Insulation Material, and Sheathing.
Claims use since Dec. 18, 1919.

Ser. No. 145,196. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE WESTERN TOOL & MANUFACTURING COMPANY, Springfield, Ohio. Filed Mar. 24, 1921.

CHAMPION

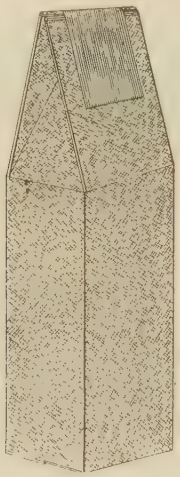
Particular description of goods.—Tool Holders, Expanding Mandrels, Vises, Lathe Dogs, Clamps, Power Hack Saws, Emery-Wheel Dressers, Vise Stands, Tool Stands, Shop Stands, Hack-Saw Stands, Bench Legs, and Molders' Benches.
Claims use since on or about Jan. 1, 1910.

Ser. No. 145,703. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) ATTILIO PIERINI, doing business as Great Northern Fur Dyeing and Dressing Co., Brooklyn, N. Y. Filed Apr. 4, 1921.

Northern Seal

No claim being made to the word "Seal" apart from the mark as shown.
Particular description of goods.—Dyed Rabbit Skins.
Claims use since Feb. 16, 1921.

Ser. No. 146,283. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WEST DISINFECTING COMPANY, New York, N. Y. Filed Apr. 16, 1921.



The trade-mark is applied to packages containing the goods by using an orange-colored carton and affixing to said carton a red band as shown in the drawing.

Particular description of goods.—Liquid Disinfectants, Antiseptics, and Purifiers.

Claims use since Nov. 1, 1906.

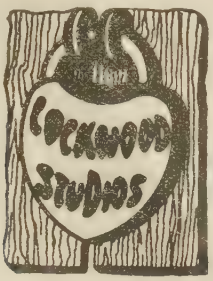
Ser. No. 146,980. (CLASS 45. BEVERAGES, NONALCOHOLIC.) THE REMER-DELL PRODUCTS CORPORATION, Columbia, S. C. Filed Apr. 29, 1921.

No claim being made to the words "Fruit Blend" apart from the mark shown.

Particular description of goods.—Nonalcoholic, Noncereal, Maltless Beverages Sold as Soft Drinks and Sirups for Making Same.

Claims use since Oct. 10, 1920.

Ser. No. 147,113½. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) LOCKWOOD STUDIOS, Santa Monica, Calif. Filed May 2, 1921.



Particular description of goods.—Incense Burners.

Claims use since Feb. 1, 1920.

Ser. No. 147,416. (CLASS 39. CLOTHING.) ADRA L. DAY, doing business as Ideal Baby Shoe Company, Danvers, Mass. Filed May 9, 1921.

No claim being made for the words "Ideal Baby Shoe" and for the representation of the goods appearing in the drawing apart from the mark as shown. The picture of child is fanciful.

Particular description of goods.—Sheepskin, Kid, Calf, Satin, Silk, Wool, and Fabric Shoes, Slippers, and Moccasins.

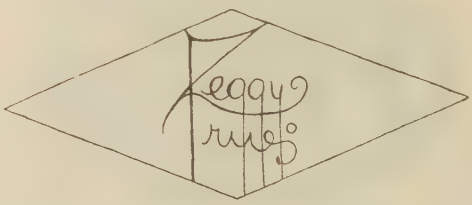
Claims use since Mar. 1, 1903.

Ser. No. 148,770. (CLASS 39. CLOTHING.) SUPREME PYRAMID ANCIENT EGYPTIAN ORDER OF SCIOTOS, San Francisco, Calif. Filed June 6, 1921.

Particular description of goods.—Fezes.

Claims use since Jan. 28, 1910.

Ser. No. 149,112. (CLASS 39. CLOTHING.) ARTISTIC DESIGNERS INC., Louisville, Ky. Filed June 13, 1921.



Particular description of goods.—Raincoats and Sweaters.

Claims use since Jan. 17, 1921.

Ser. No. 149,158. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) ALPHONSE W. WEINER, INC., New York, N. Y. Filed June 14, 1921. Under ten-year proviso.

Weiners

Particular description of goods.—Silverware—viz, Flat Ware, Hollow Ware, Toilet Sets, Manicure Sets, Cigarette Cases, Match Boxes and Cases, Lead Pencils, Pocket Knives; Pens — viz, Fountain Pens and Penholders; Cigar Cutters, Cigar Cases, Medals, Fobs, and Loving Cups; Gold and Plated Jewelry—viz, Fobs, Watch and Neck Chains, Lockets, Medals, Brooches, Bar Pins, Cigarette Cases, Match Boxes and Cases, Pen Points, Lead Pencils, Pocket and Domestic Knives, Cigar Cutters, Finger and Key Rings, Cuff Links and Buttons, Thimbles, Jewel Cases, Collar Buttons, Tie Clasps, Lingerie Clasps, and Clasp Pins.
Claims use since about June, 1889.

Ser. No. 149,924. (CLASS 39. CLOTHING.) NEAL & HYDE, INCORPORATED, Syracuse, N. Y. Filed July 1, 1921.

VICTOR

Particular description of goods.—Hosiery.
Claims use since 1896.

Ser. No. 149,979. (CLASS 39. CLOTHING.) ELLA L. ROBERTS, Los Angeles, Calif. Filed July 2, 1921.

EEEE
"FOR EASE"

Particular description of goods.—Combination Camisole and Drawers.
Claims use since May 4, 1921.

Ser. No. 150,257. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AMERICAN SUNDRIES COMPANY, Chicago, Ill. Filed July 12, 1921.

BONTOL

Particular description of goods.—Tooth Paste.
Claims use since Jan. 5, 1921.

Ser. No. 150,332. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) PATTEN MANUFACTURING COMPANY, Chattanooga Tenn. Filed July 13, 1921.

Patten
QUALITY

No claim is made to the exclusive use of the word "Quality" apart from the mark used in drawing.
Particular description of goods.—Air Pumps.
Claims use since about May 20, 1920.

Ser. No. 150,352. (CLASS 39. CLOTHING.) COHN-GOLDWATER COMPANY, Los Angeles, Calif. Filed July 14, 1921.

Katalina Kloth

No claim being made to the words "Katalina Kloth" apart from the mark shown in the drawing.
Particular description of goods.—Men's and Boys' Outer Suits and Trousers.
Claims use since about Apr. 1, 1921.

Ser. No. 150,368. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NATIONAL CONSOLIDATED DRUG CO., Great Falls, Mont. Filed July 14, 1921.

NATIONAL CONSOLIDATED DRUG COMPANY

No claim is made to the words "National Consolidated Drug Co." The letter "M" in "Trade-Mark" is shown in green, and the numeral "4" is shown in red.
Particular description of goods—Family Remedies—Namely, a Stimulating Antiseptic, Germicidal Liniment, a General Tonic, Cough Remedy, Pimple Eradicator, Eye Remedy, and Mosquito Exterminator.
Claims use since on or about May 1, 1921.

Ser. No. 150,452. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) THE KENILWORTH MANUFACTURING CO. LIMITED, London, England. Filed July 16, 1921.

HERMETITE

Particular description of goods.—Jointings and Packings for Engines, Made Up of Spirit with Gum Resin and Shellac with High-Temperature Properties to Withstand Heat and Pressure.

Claims use since May, 1921.

Ser. No. 150,643. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) UNCLE SAM CHEMICAL CO., New York, N. Y. Filed July 19, 1921.

Uncle Sam's

Particular description of goods.—Exterminating Fluids for Exterminating Roaches and Bedbugs and Disinfectants.

Claims use since June 5, 1916.

Ser. No. 151,335. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) THE ALBERT S. SAMUELS CO., San Francisco, Calif. Filed Aug. 3, 1921.

LUCKY

Trade-mark consists of word "Lucky."

Particular description of goods.—Wedding, Engagement, and Other Finger Rings Made of Gold, Platinum, or a Combination of Both, Either with or without Settings of Precious or Semiprecious Stones, Including Birthstones, and Other Jewelry for Personal Wear, Not Including Watches; Also Precious-Metal Ware—Namely, Gold or Silver Hollow Ware, Gold or Silver Flatware, and Gold or Silver Toilet Ware.

Claims use since 1911.

Ser. No. 151,336. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) THE ALBERT S. SAMUELS CO., San Francisco, Calif. Filed Aug. 3, 1921.

THE HOUSE OF LUCKY WEDDING RINGS

Applicant disclaims the words "The House of Wedding Rings" and the representation of a finger ring apart from the mark shown in the drawing.

Particular description of goods.—Wedding, Engagement, and Other Finger Rings Made of Gold, Platinum, or a Combination of Both, Either with or without Settings of Precious or Semiprecious Stones, Including Birthstones, and Other Jewelry for Personal Wear, Not Including Watches; Also Precious-Metal Ware—Namely, Gold or Silver Hollow Ware, Gold or Silver Flatware, and Gold or Silver Toilet Ware.

Claims use since 1911.

Ser. No. 151,637. (CLASS 39. CLOTHING.) ZIGMUND SAMUELS, doing business as Rose Mfg. Company, Boston, Mass. Filed Aug. 10, 1921.

Particular description of goods.—Underwear, More Specifically Vests, of Knitted Fabrics; Camisoles, Brassières, Chemises, Nightdresses, Princess Slips, and Combinations of Textile Fabrics, and Bloomers of Both Knitted and Textile Fabrics, for Women and Children, and Aprons and Children's Playdresses Made of Textile Fabrics.

Claims use since July 7, 1921.

Ser. No. 151,844. (CLASS 39. CLOTHING.) THE OHIO RUBBER CO., Cleveland, Ohio. Filed Aug. 16, 1921.

RELAX FELTWEAR

No claim is made to the use of the word "Feltwear" apart from the mark shown on drawing.

Particular description of goods.—Felt Slippers for Men, Women, and Children.

Claims use since July 1, 1921.

Ser. No. 151,845. (CLASS 39. CLOTHING.) THE OHIO RUBBER CO., Cleveland, Ohio. Filed Aug. 16, 1921.

Pit-a-pat S

Particular description of goods.—Felt Slippers for Men, Women, and Children.
Claims use since July 1, 1921.

Ser. No. 151,988. (CLASS 39. CLOTHING.) A. C. HULSE, Jr., New York, N. Y. Filed Aug. 20, 1921.

FAVORITA

Particular description of goods.—Hosiery.
Claims use since July, 1916.

Ser. No. 152,000. (CLASS 39. CLOTHING.) AMERICAN LADY CORSET COMPANY, Detroit, Mich. Filed Aug. 22, 1921

VELVET GRIP

Particular description of goods.—Corsets, Brassières, Corset Waists, Textile Fabric Underwear, Bandeaux, Hosiery, Girdles.
Claims use since Aug. 1, 1921.

Ser. No. 152,120. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) DIEGES & CLUST, New York, N. Y. Filed Aug. 24, 1921.

D&C

Particular description of goods.—Medals and Badges Made of or Plated with Precious Metal.
Claims use since June 1, 1921.

Ser. No. 152,241. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) EASTERN HAIR NET TRADING CO., New York, N. Y. Filed Aug. 27, 1921.

Newport Net

No rights are asserted to the exclusive use of the word "Net" apart from the mark shown in drawing.
Particular description of goods.—Hair Nets.
Claims use since Jan. 31, 1920.

Ser. No. 152,375. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) WALTER B. KERRICK, Los Angeles, Calif. Filed Aug. 30, 1921.

KERRICK KUSHON

No claim being made to the exclusive use of the word "Kushon" apart from the word "Kerrick."
Particular description of goods.—Vehicle Wheels.
Claims use since July 1, 1921.

Ser. No. 152,704. (CLASS 37. PAPER AND STATIONERY.) ALBERT W. ENGEL, doing business as Engel Manufacturing Company, Chicago, Ill. Filed Sept. 8, 1921.

Artitle

Particular description of goods.—Blank Gummed Labels.
Claims use since June, 1917.

Ser. No. 152,732. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMERICAN MILK PRODUCTS CORPORATION, New York, N. Y. Filed Sept. 9, 1921.

GLORIA

Particular description of goods.—Evaporated Milk.
Claims use since May 22, 1921.

Ser. No. 152,815. (CLASS 39. CLOTHING.) TAMOR BROTHERS, New York, N. Y. Filed Sept. 10, 1921.

LUCKY STRIKE

Particular description of goods.—Hosiery.
Claims use since March, 1921.

Ser. No. 153,048. (CLASS 39. CLOTHING.) OGUS, RABINOVITCH AND OGUS CO., Chicago, Ill. Filed Sept. 17, 1921.

Worthmore

Particular description of goods.—Hats for Ladies, Misses, and Children.
Claims use since Aug. 1, 1921.

Ser. No. 153,089. (CLASS 39. CLOTHING.) KOHN, ADLER & CO., Philadelphia, Pa. Filed Sept. 19, 1921.

Particular description of goods.—Hats for Women.
Claims use since about Jan. 1, 1921.

Ser. No. 153,283. (CLASS 39. CLOTHING.) FRIEDMAN DRESS COMPANY, INC., New York, N. Y. Filed Sept. 24, 1921.

Chudley

Particular description of goods.—Women's and Girls' Dresses.
Claims use since June 8, 1921.

Ser. No. 153,334. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANDREW C. CONN, doing business as Eld-O-Lene Manufacturing Company, New Bedford, Mass. Filed Sept. 26, 1921.

Eld-o-lene

Particular description of goods.—Medicinal Salve for the Treatment of Rheumatism and Kindred Ailments.
Claims use since Mar. 1, 1920.

Ser. No. 153,350. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) RALPH M. HALLAM, doing business as Chicago Piston Ring Co., (not Inc.), Chicago, Ill. Filed Sept. 26, 1921.

The words "Piston Rings" and the representation of a piston ring are disclaimed by applicant except as shown in trade-mark. The background of drawing is red and the word "Liberty" is blue.
Particular description of goods.—Piston Rings.
Claims use since Sept. 5, 1921.

Ser. No. 153,411. (CLASS 39. CLOTHING.) STEINBERGER BROS. LOBL CO., New York, N. Y. Filed Sept. 27, 1921.

ARIS

Particular description of goods.—Gloves, Leather and Fabric.
Claims use since July 1, 1921.

Ser. No. 153,453. (CLASS 39. CLOTHING.) THE GILSON COMPANY, Chicago, Ill. Filed Sept. 28, 1921.

Gilson Cap
STAYCOMD

The words "Gilson Cap" being in facsimile handwriting of James H. Gilson, president of the applicant corporation.
Particular description of goods.—Caps for Men, Women, and Children.
Claims use since May 1, 1921.

Ser. No. 153,498. (CLASS 39. CLOTHING.) F. BERG & CO., Orange, N. J. Filed Sept. 29, 1921.

Sta-Shape

Particular description of goods.—Men's Felt Hats.
Claims use since Aug. 18, 1921.

Ser. No. 153,517. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JUDSON MUNDY, Cleveland, Ohio. Filed Sept. 29, 1921.

MOTIVEPOWER

No claim is made to the word "Motivepower."
Particular description of goods.—Rotating Chain-Driven Locomotives, Marine and Stationary Valve-Gearing and Intercycle, Semiturbine, Reversible, Stationary, and Marine Steam Engines, Combination Planer, Miller, Radiodrill, Shaper, Boring Mills, and Thread Millers for Bolts.
Claims use since Jan. 1, 1920.

Ser. No. 153,536. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PETER COCUZZA, Newark, N. J. Filed Sept. 30, 1921.

BLAZINE

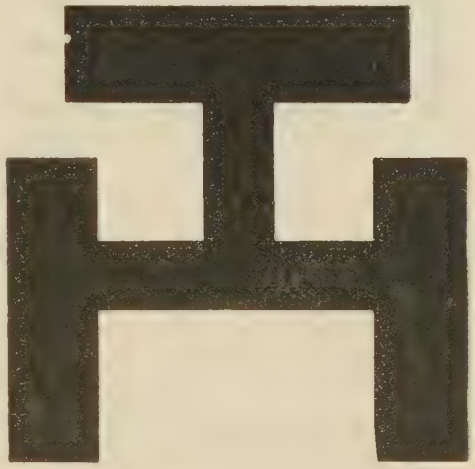
Particular description of goods.—Healing Salve.
Claims use since Jan. 1, 1920.

Ser. No. 153,559. (CLASS 39. CLOTHING.) LOB, HUBBART & SILVERMAN, New York, N. Y. Filed Sept. 30, 1921.

Komfy Klothes

No claim being made for the word "Klothes" apart from the mark shown.
Particular description of goods.—Men's and Young Men's Suits and Coats.
Claims use since Jan. 1, 1921.

Ser. No. 153,562. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE NU-IRON LABORATORY INCORPORATED, Denver, Colo. Filed Sept. 30, 1921.



Particular description of goods.—General Medicinal Tonic.
Claims use since Aug. 19, 1921.

Ser. No. 153,611. (CLASS 39. CLOTHING.) THE MAY HOSIERY MILLS, Burlington, N. C. Filed Oct. 1, 1921.

B.V. May

Particular description of goods.—Men's, Women's, and Children's Hosiery.
Claims use since Sept. 21, 1921.

Ser. No. 153,629. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) URADIA COMPANY, Houston, Tex. Filed Oct. 1, 1921.

Uradia
LIQUID ELECTRICITY

Particular description of goods.—Liquids for Charging and Recharging Batteries.
Claims use since July 3, 1921.

Ser. No. 153,643. (CLASS 39. CLOTHING.) DAVID BRODINSKY, doing business as Reliable Dry Goods Co., Springfield, Mass. Filed Oct. 3, 1921.

DEBE

Particular description of goods.—Men's, Ladies', Children's, and Infants' Hosiery and Underwear of Knitted and Textile Fabric.
Claims use since June, 1921.

Ser. No. 153,702. (CLASS 39. CLOTHING.) ST. JOSEPH TENT & AWNING CO., St. Joseph, Mo. Filed Oct. 3, 1921.

Particular description of goods.—Firemen's Heavy Duck Night Coats, Firemen's Duck Night Pants, Duck Hunting Coats, and White-Duck Packers' Frocks.
Claims use since on or about Mar. 1, 1921.

Ser. No. 153,836. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE H. BENNETT, Kansas City, Mo. Filed Oct. 7, 1921.

No claim is made to the words "Film Renovator" apart from the mark as shown in the drawing.
Particular description of goods.—Film-Cleaning Fluid.
Claims use since October, 1921.

Ser. No. 153,929. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) L'EUTERAPICA, Turin, Italy. Filed Oct. 10, 1921.

ARGIRINA

Particular description of goods.—Remedy for the Treatment of Blennorrhea.
Claims use since Sept. 1, 1920.

Ser. No. 154,092. (CLASS 39. CLOTHING.) SHERWIN-SPINNER COMPANY, New York, N. Y. Filed Oct. 14, 1921

The Winshire

Particular description of goods.—Cuffs and Shirts.
Claims use since August, 1921.

Ser. No. 154,145. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) C. R. HARKER, STAGG & MORGAN, LIMITED, doing business as Peldo Works, London, England. Filed Oct. 15, 1921.

PELDO

Particular description of goods.—Skin Cream.
Claims use since May 20, 1921.

Ser. No. 154,314. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE KANE SALES COMPANY, Centralia, Wash. Filed Oct. 19, 1921.

No claim being made to the words "Ride on Air," apart from the mark shown in drawing, said drawing being lined to indicate blue.
Particular description of goods.—Pneumatic Shock Absorbers.
Claims use since Apr. 10, 1921.

Ser. No. 154,340. (CLASS 47. WINES.) WALBAUM, GOULDEN & CO., Reims, France. Filed Oct. 19, 1921.

All words appearing outside the design apart from the mark shown on drawing with the exception of the words

"Red Top," "Monopole," and "Walbaum, Goulden & Co." appearing within a circle. The following words within the design are disclaimed apart from the mark shown on the drawing: "Reims, Maison Fondee in 1785 Gout Americain," no common-law rights being hereby disclaimed.

Particular description of goods.—Champagne Wines.

Claims use since 1901.

Ser. No. 154,341. (CLASS 47. WINES.) WALBAUM, GOULDEN & CO., Reims, France. Filed Oct. 19, 1921.

The following words appearing outside the design are disclaimed: "Champagne," "Dry," "Heidsieck & Co.," "Maison Fondee 1785" and "Reims, France," and the following words within the design are disclaimed: "Dry," "Reims," "Maison Fondee en 1785," and "Dry" appearing a second time within the design, no common-law rights being hereby disclaimed.

Particular description of goods.—Champagne Wines.

Claims use since 1862.

Ser. No. 154,404. (CLASS 39. CLOTHING.) ABRAHAM D. FINKEL, doing business as Sorg Manufacturing Company, Pittsburgh, Pa. Filed Oct. 21, 1921.

No claim being made to the word "Brand" except in connection with the balance of the mark.

Particular description of goods.—Bungalow Aprons, Dresses, Petticoats, and Band Aprons, Nightgowns, and Bloomers.

Claims use since July, 1916.

Ser. No. 154,405. (CLASS 39. CLOTHING.) ABRAHAM D. FINKEL, doing business as Sorg Manufacturing Company, Pittsburgh, Pa. Filed Oct. 21, 1921.

No claim being made to the word "Garments" except in connection with the balance of the mark.

Particular description of goods.—Bungalow Aprons, Dresses, Petticoats, and Band Aprons, Nightgowns, and Bloomers.

Claims use since August, 1921.

Ser. No. 154,508. (CLASS 6. CHEMICALS. MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE GRASSELLI CHEMICAL COMPANY, Cleveland, Ohio. Filed Oct. 24, 1921. Under ten-year proviso.

Particular description of goods.—Dyes and Dyestuffs.

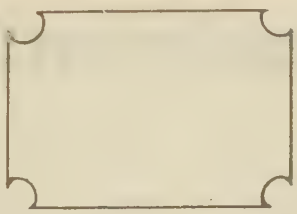
Claims use since about Sept. 17, 1892.

Ser. No. 154,672. (CLASS 39. CLOTHING.) STEINBERGER BROS. LOBL CO., New York, N. Y. Filed Oct. 27, 1921.

Particular description of goods.—Leather and Fabric Gloves.

Claims use since Aug. 1, 1921.

Ser. No. 154,673. (CLASS 39. CLOTHING.) STEINBERGER BROS. LOBL CO., New York, N. Y. Filed Oct. 27, 1921.



Particular description of goods.—Leather and Fabric Gloves.

Claims use since July 1, 1921.

Ser. No. 154,698. (CLASS 39. CLOTHING.) HENRY METZLER, New York, N. Y. Filed Oct. 28, 1921.

No claim is made to the exclusive use of the words "Makers of Ladies' Waists" apart from the mark shown in the drawing.

Particular description of goods.—Ladies' Blouses.

Claims use since September, 1911.

Ser. No. 154,887. (CLASS 39. CLOTHING.) VIRGINIA POPE, New York, N. Y. Filed Nov. 1, 1921.

Presto-Change

Particular description of goods.—Outer Garment for Women and Girls, Adapted to be Worn Either as a Dress or as Knickerbockers.

Claims use since on or about Sept. 6, 1921.

Ser. No. 154,919. (CLASS 39. CLOTHING.) THE THOMAS DALBY COMPANY, Watertown, Mass. Filed Nov. 2, 1921.

Underknits

Particular description of goods.—Women's Union Suits, Women's Vests and Pants, Women's Corset Covers, Women's Knickerbockers, Children's Union Suits, Children's Vests and Pantalets, Children's Underwaists, Boys' Union Suits, Boys' Vests, and Pants, and Drawers, Boys' Athletic Sleeveless Trunks, Infants' Wrappers and Shirts, Infants' Bands, Infants' Binders, and Infants' and Children's Sleeping Garments.

Claims use since Dec. 17, 1920.

Ser. No. 154,944. (CLASS 39. CLOTHING.) WILLIAM H. WANAMAKER, Philadelphia, Pa. Filed Nov. 2, 1921.

Particular description of goods.—Men's and Young Men's Overcoats.

Claims use since on or about Sept. 17, 1921.

Ser. No. 155,015. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CRAVEN & LOVE, Pittsburgh, Pa. Filed Nov. 4, 1921.

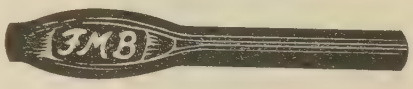
Particular description of goods.—Pile Remedy.

Claims use since Jan. 1, 1921.

Ser. No. 155,080. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) FRANK M. BONHEIM, doing business as The Frank M. Bonheim Licorice & Beverage Co., St. Louis, Mo. Filed Nov. 7, 1921.

"Licor"

MADE FROM LICORICE



No claim is made to the exclusive use of the words "Made from Licorice," and the representation of a stick of licorice apart from the mark shown in drawing.

Particular description of goods.—Nonalcoholic Maltless Beverage Sold as a Soft Drink and Sirup and Extract for Making Same.

Claims use since Oct. 2, 1921.

Ser. No. 155,096. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FREDERICK F. INGRAM COMPANY, Detroit, Mich. Filed Nov. 7, 1921.

The light rays around the word "N. E. D. A." are yellow, the upper rectangular field is red, the lower field yellow. The framework of the upper and intermediate fields are yellow.

Particular description of goods.—Pharmaceutical Preparations—viz., Antiseptic Semiliquid After-Shaving Preparation, Cough Sirup, Nerve and Blood Tonic, Bronchial Troches; Liniment for Sprains, Bruises, Sore Joints, Muscular Rheumatism, and Inflamed Muscles; Camphor Ice, Cold Cream, Remedy for Colds, Laxatives, Medicine for Removing Corns, Skin Cream; Salves for Wounds, Sores, Burns, Abscesses, and Certain Forms of Eczema; Remedies for Diarrhea, Dyspepsia, Female Ailments, Piles, Worms, Whooping Cough, Sore Throat, and for Diseases of the Liver and Kidneys; Remedy for Toothache; Healing Balm Application for Catarrh, Hay Fever, Local Inflammation, and Neuralgia; Soothing Sirup, Tooth Powder; Remedies for Constipation, Malnutrition, Indigestion, and Convalescence, and Hair Tonic.

Claims use since 1910.

Ser. No. 155,098. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FREDERICK F. INGRAM COMPANY, Detroit, Mich. Filed Nov. 7, 1921.

N·E·D·A·

Particular description of goods.—Pharmaceutical Preparations—viz., Antiseptic Semiliquid After-Shaving Preparation, Cough Sirup, Nerve and Blood Tonic, Bronchial Troches; Liniment for Sprains, Bruises, Sore Joints, Muscular Rheumatism, and Inflamed Muscles; Camphor Ice, Cold Cream, Remedy for Colds, Laxatives, Medicine for Removing Corns, Skin Cream; Salves for Wounds, Sores, Burns, Abscesses, and Certain Forms of Eczema; Remedies for Diarrhea, Dyspepsia, Female Ailments, Piles, Worms, Whooping Cough, Sore Throat, and for Diseases of the Liver and Kidneys; Remedy for Toothache; Healing Balm Application for Catarrh, Hay Fever, Local Inflammation, and Neuralgia; Soothing Sirup, Tooth Powder; Remedies for Constipation, Malnutrition, Indigestion, and Convalescence, and Hair Tonic.

Claims use since 1910.

Ser. No. 155,249. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) AKTIENGESELLSCHAFT LIGNOSE, Berlin, Germany. Filed Nov. 10, 1921.

Particular description of goods.—Explosives, Blasting Powder, Fuses, Detonators, Projectiles, Cartridges, and Munitions.

Claims use since January, 1919.

Ser. No. 155,337. (CLASS 39. CLOTHING.) CHICAGO BARGAIN HOUSE, Chicago, Ill. Filed Nov. 14, 1921.

Prima Donna
HAT
MICHIGAN AVE.
CHICAGO.
RUE BERGERE, PARIS.

No claim being made to the words "Hat," "Michigan Ave.," "Chicago," and "Rue Bergere, Paris," apart from the mark shown.

Particular description of goods.—Hats for Women and Children.

Claims use since Sept. 26, 1921.

Ser. No. 155,432. (CLASS 39. CLOTHING.) TIMOTHY F. CROWLEY, New York, N. Y. Filed Nov. 16, 1921.

SPOR-TEE
Maker·Crowley

Particular description of goods.—Women's Neckwear.

Claims use since Nov. 1, 1921.

Ser. No. 155,439. (CLASS 39. CLOTHING.) JULIUS KAYSER & Co., New York, N. Y. Filed Nov. 16, 1921.

Rolette

Particular description of goods.—Stockings.

Claims use since Oct. 28, 1921.

Ser. No. 155,447. (CLASS 39. CLOTHING.) THE PEER-AMID COMPANY, Philadelphia, Pa. Filed Nov. 16, 1921.

Peer-amid

Particular description of goods.—Hosiery.
Claims use since May 20, 1921.

Ser. No. 155,565. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) MIEHLE PRINTING PRESS & MANUFACTURING COMPANY, Chicago, Ill. Filed Nov. 18, 1921.

The Miehle Vertical

No claim is made to the exclusive use of the word "Vertical" separate and apart from its association with the trade-mark shown in the drawing.
Particular description of goods.—Printing Presses.
Claims use since Oct. 11, 1921.

Ser. No. 155,674. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE FITZGERALD MFG. COMPANY, Torrington, Conn. Filed Nov. 21, 1921.

STAR

Particular description of goods.—Electric Toaster, Automatic Reversible Type; Electric Air Heater, and Electric Hair Drier.
Claims use since Feb. 8, 1921.

Ser. No. 155,802. (CLASS 39. CLOTHING.) BOAS & BASKIND, New York, N. Y. Filed Nov. 23, 1921.

Old Glory

Particular description of goods.—Men's Work, Dress, Sport, and Negligée Shirts and Boys' Shirts and Blouses.
Claims use since June 17, 1921.

Ser. No. 155,890. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) TULA E. ISAACS, doing business as Dorothy Perkins Toilet Goods Company, Dallas, Tex. Filed Nov. 25, 1921.

DOROTHY PERKINS

Particular description of goods.—Face-Cleansing Crear a Face Cream, an Antiseptic Beauty Balm, Hair " and Hair-Curling Fluid.
Claims use since about Sept. 1, 1921.

Ser. No. 155,901. (CLASS 39. CLOTHIN(JUDSON, New York, N. Y. Filed Nov. 25,

Mojud

Particular description of goods.—Hosiery.
Claims use since Mar. 15, 1919.

Ser. No. 156,014. (CLASS 39. CLOTHING.) O'ROURKE, EUBANKS HAT CO., San Francisco, Calif. Filed Nov. 28, 1921.

The word "Hats" is disclaimed apart from mark as shown in drawing.

Particular description of goods.—Men's Hats.

Claims use since 1904.

Ser. No. 156,121. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) UNITED STATES HAIR NET CO., Chicago, Ill. Filed Nov. 30, 1921.

MOVIE STAR

Particular description of goods.—Hair Nets.

Claims use since Jan. 1, 1921.

Ser. No. 156,142. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMERICAN MILK PRODUCTS CORPORATION, New York, N. Y. Filed Dec. 1, 1921.

GLÜCKSKLEE

Particular description of goods.—Evaporated Milk.

Claims use since Sept. 23, 1921.

Ser. No. 156,394. (CLASS 39. CLOTHING.) MAASS & KEMPER, INC., Baltimore, Md. Filed Dec. 7, 1921.

TuWAY

Particular description of goods.—Middy Blouses, Children's Dresses, and Boys' Washsuits.

Claims use since on or about Nov. 25, 1921.

Ser. No. 156,395. (CLASS 28. JEWELRY AND PRECIOUS METAL WARE.) LOUIS N. MARX, New York, N. Y. Filed Dec. 7, 1921.

Marvlew

Particular description of goods.—Imitation-Pearl Necklaces.

Claims use since Nov. 2, 1921.

Ser. No. 156,396. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MYERS & PARKER, San Francisco, Calif. Filed Dec. 7, 1921.

Particular description of goods.—Hair Pomade.

Claims use since July, 1917.

Ser. No. 156,448. (CLASS 39. CLOTHING.) THERESE HYNDS, New York, N. Y. Filed Dec. 8, 1921.

Therese Hynds

Particular description of goods.—Corsets.

Claims use since 1901.

Ser. No. 156,455. (CLASS 39. CLOTHING.) WARREN MACPHERSON, doing business as Cambridge Rubber Company, Cambridge, Mass. Filed Dec. 8, 1921.

Gaberdette

Particular description of goods.—Raincoats.

Claims use since on or about June 1, 1920.

Ser. No. 156,591. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KENNETH W. MOORE, Chicago, Ill. Filed Dec. 12, 1921.

NIX

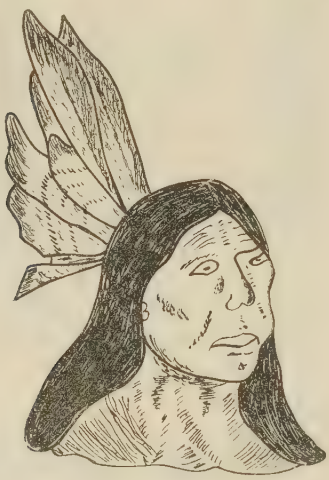
Particular description of goods.—Deodorants.
Claims use since Sept. 1, 1921.

Ser. No. 156,596. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) PERKINS CORPORATION, Mishawaka, Ind. Filed Dec. 12, 1921.

AERO-ELECTRIC

Particular description of goods.—Electric Light and Power Plants, Comprising Broadly Wind-Driven Apparatus and Electrical Apparatus for Generating and Distributing Current.
Claims use since Feb. 28, 1921.

Ser. No. 156,832. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) INDIAN REMEDY COMPANY, Brockton, Mass. Filed Dec. 17, 1921.



Particular description of goods.—Medicines—Namely, Blood Medicine, a Medicine Used in the Treatment of Gonorrhea and Clap, and Asthma Medicine.
Claims use since Oct. 1, 1921.

Ser. No. 157,015. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE AKRON-SELLE COMPANY, Akron, Ohio. Filed Dec. 22, 1921.

"TASCO"

Particular description of goods.—Liquid Gauges.
Claims use since Jan. 1, 1917.

Ser. No. 157,079. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOZOL LIMITED, London, England. Filed Dec. 23, 1921.

SOZOL

Particular description of goods.—Anticorrosive Chemical Compositions or Compounds.
Claims use since Feb. 23, 1920.

Ser. No. 157,090. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES D. BERMAN, doing business as C. D. Berman Chemical Co., Wheeling, W. Va. Filed Dec. 24, 1921.

MUMMO

Particular description of goods.—Rat Poison.
Claims use since Nov. 1, 1921.

Ser. No. 157,104. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE NUNNALLY COMPANY, Atlanta, Ga. Filed Dec. 24, 1921.

THE STORY OF
Nunnally's

Particular description of goods.—Candy.
Claims use since Aug. 30, 1921.

Ser. No. 157,114. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) TEXAS GULF SULPHUR COMPANY, New York, N. Y. Filed Dec. 24, 1921.

INOC-SUL

Particular description of goods.—Sulphur Inoculated with Bacteria.
Claims use since Nov. 29, 1921.

Ser. No. 157,116. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) TEXAS GULF SULPHUR COMPANY, New York, N. Y. Filed Dec. 24, 1921.

Particular description of goods.—Sulphur and Sulphur Inoculated with Bacteria.
Claims use since Nov. 29, 1921.

Ser. No. 157,157. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LAWNDALE WHOLESALE GROCERY CO., Chicago, Ill. Filed Dec. 27, 1921.

King Crop

Particular description of goods.—Canned Tomatoes.
Claims use since Dec. 12, 1921.

Ser. No. 157,180. (CLASS 12. CONSTRUCTION MATERIALS.) STANDARD OIL COMPANY, (Incorporated in New Jersey,) Bayonne, N. J. Filed Dec. 27, 1921.

GARÇA

Particular description of goods.—Asphaltums, Asphalt Binders, Asphalt Brick Fillers, Asphalt Block Fillers, Asphalt Macadams, Asphalt Road Oils, Cold-Patch Asphalts, Common Asphalts, Flooring Asphalts, Mixing Asphalts, Oxidized Asphalts, Paving Asphalts, Roofing Asphalts, Resurfacing Asphalts, Steam-Reduced Asphalts, Heavy Paving Fluxes, Medium Paving Fluxes, Light Paving Fluxes, Paving Fluxes, Heavy Roofing Fluxes, Medium Roofing Fluxes, Light Roofing Fluxes, Roofing Fluxes, Pitches, and Road Oils.
Claims use since Sept. 27, 1921.

Ser. No. 157,199. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) THE M. I. WILCOX COMPANY, Toledo, Ohio. Filed Dec. 27, 1921.

WILCO

Particular description of goods.—Rubber, Fabric, and Leather Belting.
Claims use since Jan. 1, 1910

Ser. No. 157,355. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE BANNER SILK KNITTING MILLS, INC., New York, N. Y. Filed Dec. 31, 1921.

Particular description of goods.—Textile Fabrics—viz, Silk Knitted Cloth.
Claims use since Dec. 1, 1921.

Ser. No. 157,391. (CLASS 32. FURNITURE AND UPHOLSTERY.) UTICA BEDDING FACTORY, INC., Utica, N. Y. Filed Dec. 31, 1921.

GOLDEN FLEECE

Particular description of goods.—Mattresses.
Claims use since July 1, 1921.

Ser. No. 157,421. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) HURLEY MACHINE COMPANY, Chicago, Ill. Filed Jan. 3, 1922.

LUMINOID

Particular description of goods.—Metal Clothes Containers for Washing Machines.
Claims use since Sept. 30, 1921.

Ser. No. 157,448. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SIOUX CANDY CO., Sioux City, Iowa. Filed Jan. 3, 1922.

Sweetest Story

Particular description of goods.—Chocolate Candy.
Claims use since Feb. 10, 1921.

Ser. No. 157,464. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE WHOLESALE DISTRIBUTORS CO., Chicago, Ill. Filed Jan. 3, 1922.

MARY DALE

BRAND

The word "Brand" does not form a part of registration sought apart from the mark shown in drawing, the picture being fanciful.
Particular description of goods.—Canned Fruits and Canned Vegetables.
Claims use since July 1, 1921.

Ser. No. 157,465. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE WHOLESALE DISTRIBUTORS CO., Chicago, Ill. Filed Jan. 3, 1922.

MARTHA DALE BRAND

The word "Brand" does not form a part of the registration sought apart from the mark shown in drawing. The picture shown is fanciful.
Particular description of goods.—Canned Fruits, Canned Vegetables, Canned Fish, Tomato Catchup, and Fruit Preserves.
Claims use since Sept. 1, 1921.

Ser. No. 157,482. (CLASS 26.) MEASURING AND SCIENTIFIC APPLIANCES.) GOTHAM OPTICAL CO., INC., New York, N. Y. Filed Jan. 4, 1922.

Inerim

Particular description of goods.—Eyeglasses, Spectacles, and Goggles.
Claims use since December, 1918.

Ser. No. 157,524. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) MOSES H. HARRIS, New York, N. Y. Filed Jan. 5, 1922.

Golfsite

Particular description of goods.—Eyeglasses and Spectacles for Athletic Purposes.
Claims use since Sept. 23, 1920.

Ser. No. 157,528. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE W. R. MONTAGUE COMPANY, La Crosse, Wis. Filed Jan. 5, 1922.

CocoRidges

Particular description of goods.—Chocolate-Covered Nut Bar.
Claims use since Nov. 1, 1921.

Ser. No. 157,556. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ABRAHAM COHEN, doing business as Puritan Products Company, Baltimore, Md. Filed Jan. 6, 1922.

Particular description of goods.—Salad and Cooking Oil.
Claims use since Dec. 21, 1921.

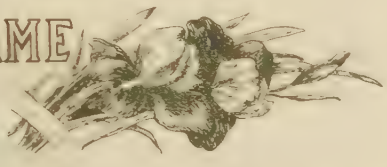
Ser. No. 157,573. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE HORTON MANUFACTURING CO., Bristol, Conn. Filed Jan. 6, 1922.

"Bristol"

Particular description of goods.—Steel Shafts for Golf Clubs.
Claims use since Dec. 9, 1921.

Ser. No. 157,574. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TOMISABURO KOMADA, Yokohama, Japan. Filed Jan. 6, 1922.

AYAME



Particular description of goods.—Canned and Bottled Crab.
Claims use since May 8, 1918.

Ser. No. 157,575. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TOMISABURO, KOMADA, Yokohama, Japan. Filed Jan. 6, 1922.

Particular description of goods.—Canned and Bottled Crab.
Claims use since May 18, 1918.

Ser. No. 157,577. (CLASS 39. CLOTHING.) LEVY & WEISS SHOE CO., New York, N. Y. Filed Jan. 6, 1922.

No claim is herein made for the exclusive use of the words "Trade Mark" which appear on drawing as illustrated apart from the mark shown.
Particular description of goods.—Leather Shoes, Fabric Shoes, Rubber Shoes, and Combinations of the Same.
Claims use since Dec. 15, 1921.

Ser. No. 157,583. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) ARTHUR FERRIN, Brookline, Mass. Filed Jan. 6, 1922.

TELESPECS

Trade-mark consists of fanciful word "Telespecs."
Particular description of goods.—Binocular Telescopic Instruments, Such as Opera Glasses and Field Glasses.
Claims use since Dec. 13, 1921.

Ser. No. 157,586. (CLASS 12. CONSTRUCTION MATERIALS.) QUIGLEY FURNACE SPECIALTIES CO., INCORPORATED, New York, N. Y. Filed Jan. 6, 1922.

INSULBOND

Particular description of goods.—Calcined Pulverized Material Composed Principally of Diatomaceous Earth Used as a Cement or Mortar.
Claims use since Nov. 26, 1921.

Ser. No. 157,634. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) QUAKER CITY CHOCOLATE & CONFECTIONERY COMPANY, Philadelphia, Pa. Filed Jan. 7, 1922.

Gold Diggers

Particular description of goods.—Hard and Soft Candies and Chocolates.
Claims use since Jan. 1, 1921.

Ser. No. 157,659. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) I. O. DREWRY CONTRACTING COMPANY, INC., Birmingham and Carbon Hill, Ala. Filed Jan. 9, 1922.

SUNLIGHT

Particular description of goods.—Coal.
Claims use since July, 1921.

Ser. No. 157,702. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WEBERS, Milwaukee, Wis. Filed Jan. 9, 1922.

ADLON

Particular description of goods.—Candy.
Claims use since July 22, 1921.

Ser. No. 157,734. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE RAISIN PRODUCTS CO. OF AMERICA, New York, N. Y. Filed Jan. 10, 1922.

NATURE'S COMPOUND RAISIN IRON and NUX

The wording appearing on the drawing being disclaimed apart from the mark shown.
Particular description of goods.—Tablets for the Treatment of Anæmia, Loss of Appetite, and as a General Tonic.
Claims use since December, 1921.

Ser. No. 157,763. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FLYNN DAIRY COMPANY, Des Moines, Iowa. Filed Jan. 11, 1922.

Frost Bite

Particular description of goods.—Chocolate-Coated Ice Cream.
Claims use since Oct. 29, 1921.

Ser. No. 157,767. (CLASS 32. FURNITURE AND UPHOLSTERY.) MAJESTIC MANUFACTURING COMPANY, St. Louis, Mo. Filed Jan. 10, 1922.

Majestic

Particular description of goods.—Proofing Boxes, Pan Racks, Sanitary Tables, Bakers' and Cooks' Tables, Urn Tables, Display Counters, Pantry Counters, Lunch Counters, Cafeteria Counters, and Butter-Tray Stands.
Claims use since 1897.

Ser. No. 157,789. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WAGNER MANUFACTURING COMPANY, Ardmore, Okla. Filed Jan. 11, 1922.

WAGNER'S Honeyetts

Particular description of goods.—Pop-Corn Balls.
Claims use since Nov. 14, 1921.

Ser. No. 157,918. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) EDWARD L. EGGERS, doing business as The Merforol Company, St. Louis, Mo. Filed Jan. 14, 1922.

MONKEY SHINE

Particular description of goods.—Preparation for Cleaning, Shining, and Polishing Shoes and All Leather Articles.
Claims use since July 1, 1921.

Ser. No. 157,926. (CLASS 39. CLOTHING.) THE K-W SHOE CO., Chicago, Ill., Filed Jan. 14, 1922.

The K-W Shoe Co.

Particular description of goods.—Men's Leather Shoes.
Claims use since Feb. 4, 1921.

Ser. No. 157,928. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) H. KOHNSTAMM & Co., New York, N. Y. Filed Jan. 14, 1922.

No claim being made to the words "Cleaners and Dyers Supplies."

Particular description of goods.—Union and Acid Dyes.

Claims use since January, 1920.

Ser. No. 157,936. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SIMON MARKMAN, New York, N. Y. Filed Jan. 14, 1922.

CARMOSENE

Particular description of goods.—Face and Lip Rouge.

Claims use since Apr. 1, 1913.

Ser. No. 157,937. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SIMON MARKMAN, New York, N. Y. Filed Jan. 14, 1922.

MISKOLA

Particular description of goods.—Cosmetic for Treating the Eyebrows.

Claims use since Mar. 1, 1920.

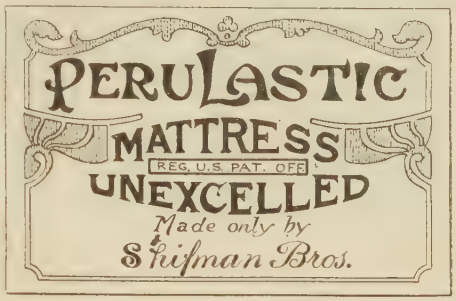
Ser. No. 157,951. (CLASS 32. FURNITURE AND UPHOLSTERY.) NATIONAL MATTRESS CO. INC., Lynchburg, Va. Filed Jan. 14, 1922.

American Beauty

Particular description of goods.—Iron Beds, Bed Springs, Cots, Elastic White Felt Mattresses, Hair Mattresses, Cushions, Pillows, and Bolsters.

Claims use since January, 1909.

Ser. No. 157,963. (CLASS 32. FURNITURE AND UPHOLSTERY.) SHIFMAN BROTHERS, Newark, N. J. Filed Jan. 14, 1922.



The words "Mattresses, Reg. U. S. Pat. Off., Unexcelled, Made Only by Shifman Bros." are disclaimed apart from the mark as shown.

Particular description of goods.—Mattresses.

Claims use since about June 1, 1921.

Ser. No. 157,986. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) CHICAGO GRANITINE MANUFACTURING COMPANY, Chicago, Ill. Filed Jan. 16, 1922.

PRINCESS

Particular description of goods.—Stationary Laundry Tubs.

Claims use since Dec. 15, 1921.

Ser. No. 157,987. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) CHICAGO GRANITINE MANUFACTURING COMPANY, Chicago, Ill. Filed Jan. 16, 1922.

AJAX

Particular description of goods.—Stationary Laundry Tubs.

Claims use since Dec. 15, 1921.

Ser. No. 158,042. (CLASS 45. BEVERAGES, NONALCOHOLIC.) IRONDEQUOIT FRUIT JUICE CO., Irondequoit, N. Y. Filed Jan. 17, 1922.

HOMIX

Particular description of goods.—Nonalcoholic, Maltless Beverage Sold as a Soft Drink and Sirups for Making the Same.

Claims use since Jan. 12, 1922.

Ser. No. 158,044. (CLASS 39. CLOTHING.) THE JUVENILE SHOE CORPORATION OF AMERICA, Carthage, Mo. Filed Jan. 17, 1922.

MOUNTAIN-HIKER

Particular description of goods.—Boots and Shoes of Leather.
Claims use since Dec. 27, 1921.

Ser. No. 158,057. (CLASS 37. PAPER AND STATIONERY.) THE M. S. RODENBERG CO., Providence, R. I. Filed Jan. 17, 1922.

EVER-RITE

Particular description of goods.—Mechanically-Operated Lead Pencils.
Claims use since Aug. 30, 1921.

Ser. No. 158,094. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARY E. ROWDEN, trading as Mme. Leo Products Co., Seattle, Wash. Filed Jan. 18, 1922.

Belcano

Trade-mark consists of the word "Belcano" accompanied by a picture of a volcano.
Particular description of goods.—Facial Pack Pastes.
Claims use since Oct. 27, 1921.

Ser. No. 158,117. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GARDEN CHEMICAL CO. INC., New York, N. Y. Filed Jan. 19, 1922.

LOTOL

Particular description of goods.—Insecticides.
Claims use since about Dec. 30, 1921.

Ser. No. 158,128. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH HENRY KARP, New York, N. Y. Filed Jan. 19, 1922.

100 PER CENT

Particular description of goods.—Hair Bleach.
Claims use since May 1, 1919.

Ser. No. 158,158. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOCIETY OF CHEMICAL INDUSTRY IN BASLE, Basel, Switzerland. Filed Jan. 19, 1922.

SILOSAN

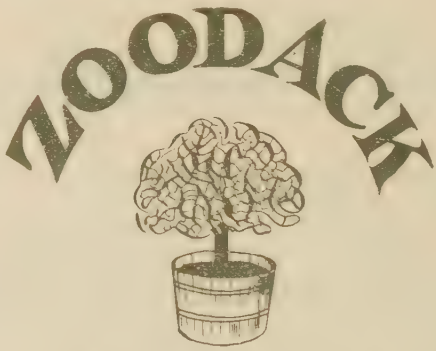
Particular description of goods.—Chemical and Pharmaceutical Preparation Which is Used as an Analgesic, Antirheumatic, and Antipyretic.
Claims use since Nov. 18, 1921.

Ser. No. 158,195. (CLASS 43. THREAD AND YARN.) SMITH & DOVE MFG. CO., Andover, Mass. Filed Jan. 20, 1922. Under ten-year proviso.

ESSEX

Particular description of goods.—Linen Thread.
Claims use since 1889.

Ser. No. 158,232. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MEYER HARRIS, doing business as Zoodack Manufacturing Co., Aiken, S. C. Filed Jan. 21, 1922.



Particular description of goods.—Salve for Piles, Burns, Sore Throat, Tonsillitis, Boils, and Stiff Neck.
Claims use since June 10, 1921.

Ser. No. 158,232. (CLASS 38. PRINTS AND PUBLICATIONS.) SHOE AND LEATHER REPORTER CO., Boston, Mass. Filed Jan. 21, 1922.

The Shoe Wholesaler

Particular description of goods.—Periodical Published Monthly.
Claims use since Dec. 29, 1921.

Ser. No. 158,272. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAMES H. WAUGH, doing business as Waughrine Medicine Co., Washington, D. C. Filed Jan. 21, 1922.

WAUGHRINE

Particular description of goods.—Liniment for Use in the Treatment of Rheumatism.
Claims use since Jan. 20, 1922.

Ser. No. 158,283. (CLASS 38. PRINTS AND PUBLICATIONS.) THE BUZZA COMPANY, Minneapolis, Minn. Filed Jan. 23, 1922.

Greetings.

Particular description of goods.—Name of a Monthly Periodical Publication.
Claims use since Jan. 10, 1922.

Ser. No. 158,288. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) VERNON D. BLANK, doing business as Grinnell Games, Grinnell and Des Moines, Iowa. Filed Jan. 23, 1922.

The drawing is lined for red.
Particular description of goods.—Table Game Played with Disks and Receptacles.
Claims use since Oct. 17, 1921.

Ser. No. 158,299. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FIDELA M. DE MORALES, San Francisco, Calif. Filed Jan. 23, 1922.

EXTRICATOR

Particular description of goods.—Preparation for the Treatment of Ulcerous Wounds of Long Standing.
Claims use since Nov. 1, 1921.

Ser. No. 158,300. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EXENE LABORATORIES, Boston, Mass. Filed Jan. 23, 1922.

EXENE

Particular description of goods.—Ointment for Skin Diseases.
Claims use since Jan. 4, 1922.

Ser. No. 158,332. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PARKE, DAVIS & COMPANY, Detroit, Mich. Filed Jan. 23, 1922.

DIBROMIN

Particular description of goods.—Germicides and Antiseptics.
Claims use since Jan. 12, 1922.

Ser. No. 158,335. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CARGILL W. REDPATH, Kansas City, Mo. Filed Jan. 23, 1922.

KIDDIE LAX

Particular description of goods.—Laxative.
Claims use since about Dec. 10, 1921.

Ser. No. 158,337. (CLASS 48. MALT BEVERAGES, EXTRACTS, AND LIQUORS.) SCHRUMM-SCHRUMM CO., Chicago, Ill. Filed Jan. 23, 1922.

Particular description of goods.—Extracts to be Used for Beverage Purposes.
Claims use since Feb. 24, 1921.

Ser. No. 158,353. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ZINCLOROS CHEMICAL COMPANY, Denver, Colo. Filed Jan. 23, 1922.

ZINCLOROS

Particular description of goods.—Mouth Wash.
Claims use since about Feb. 15, 1920.

Ser. No. 158,406. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) W. E. SHUIT, INCORPORATED, Passaic, N. J. Filed Jan. 24, 1922.

BEL-CAPS

Particular description of goods.—Medicinal Preparations for the Treatment of Colds, Influenza, and La Grippe.
Claims use since Nov. 26, 1921.

Ser. No. 158,419. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) EVERYBODY'S TALKING MACHINE COMPANY, Philadelphia, Pa. Filed Jan. 25, 1922.

HONEST QUAKER

Particular description of goods.—Springs for Talking Machines.
Claims use since Oct. 1, 1920.

Ser. No. 158,424. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) GRINNELL WASHING MACHINE COMPANY, Grinnell, Iowa. Filed Jan. 25, 1922.

Gas-O-Motor

Particular description of goods.—Washing Machines.
Claims use since Apr. 1, 1921.

Ser. No. 158,426. (CLASS 17. TOBACCO PRODUCTS.) KING-FERREE CO. INC., Greensboro, N. C. Filed Jan. 25, 1922.

Hood's VANTAMPA

The lines on drawing are for red and green.
Particular description of goods.—Cigars.
Claims use since on or about Dec. 23, 1921.

Ser. No. 158,431. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NESTLÉ'S FOOD COMPANY, INC., New York, N. Y. Filed Jan. 25, 1922.

NESTLÉ'S EVERYDAY

Particular description of goods.—Ice Cream.
Claims use since November, 1921.

Ser. No. 158,474. (CLASS 27. HOROLOGICAL INSTRUMENTS.) ROBT. H. INGERSOLL & BRO., New York, N. Y. Filed Jan. 26, 1922.

RELIANCE

Trade-mark "Reliance."
Particular description of goods.—Watches and Clocks.
Claims use since 1898.

Ser. No. 158,475. (CLASS 27. HOROLOGICAL INSTRUMENTS.) ROBT. H. INGERSOLL & BRO., New York, N. Y. Filed Jan. 26, 1922.

MIDGET

"Midget" is trade mark.
Particular description of goods.—Watches and Clocks.
Claims use since February, 1905.

Ser. No. 158,478. (CLASS 27. HOROLOGICAL INSTRUMENTS.) KATZ & OGUSH, INC., New York, N. Y. Filed Jan. 26, 1922.

IRA

Particular description of goods.—Watches and Watch Movements.
Claims use since Jan. 3, 1922.

Ser. No. 158,529. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MERRELL-SOULE COMPANY, Syracuse, N. Y. Filed Jan. 27, 1922.

BREADLAC

Particular description of goods.—Powdered Milk.
Claims use since 1911.

Ser. No. 158,549. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE AKRON MATTRESS MANUFACTURING COMPANY, Akron, Ohio. Filed Jan. 28, 1922.

SAN HYGENE

Particular description of goods.—Mattresses, Box Springs, Bed Springs, and Pillows.
Claims use since January, 1912.

Ser. No. 158,593. (CLASS 38. PRINTS AND PUBLICATIONS.) BREWSTER PUBLICATIONS, INC., Brooklyn, N. Y. Filed Jan. 30, 1922.

Beauty

Particular description of goods.—Monthly Publication.
Claims use since January, 1922.

Ser. No. 158,594. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BOSTON CONFECTIONERY COMPANY, Cambridge, Mass. Filed Jan. 30, 1922.

BOSCRAFT

Particular description of goods.—Candy.
Claims use since Jan. 6, 1922.

Ser. No. 158,643. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) POCONO RUBBER CLOTH COMPANY, Trenton, N. J. Filed Jan. 30, 1922.

POCOTOP

Particular description of goods.—Waterproofed Fabrics and Rubberized Fabrics.
Claims use since on or about Nov. 30, 1921.

Ser. No. 158,650. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) LOUIS H. SMITH, Chicago, Ill. Filed Jan. 30, 1922.

SURCO

Trade-mark consists of coined word "Surco."
Particular description of goods.—Automobile Radiator Caps.
Claims use since about May 1, 1918.

Ser. No. 158,654. (CLASS 38. PRINTS AND PUBLICATIONS.) STREET & SMITH CORPORATION, New York, N. Y. Filed Jan. 30, 1922.

Sea Stories Magazine

Particular description of goods.—Magazines Issued Monthly.
Claims use since Jan. 14, 1922.

Ser. No. 158,656. (CLASS 38. PRINTS AND PUBLICATIONS.) STREET & SMITH CORPORATION, New York, N. Y. Filed Jan. 30, 1922.

Western Story Magazine

Particular description of goods.—Magazines Issued Weekly.
Claims use since Sept. 5, 1919.

Ser. No. 158,692. (CLASS 32. FURNITURE AND UPHOLSTERY.) UTICA BEDDING FACTORY, INC., Utica, N. Y. Filed Jan. 31, 1922.

Colonial

Particular description of goods.—Mattresses.
Claims use since Sept. 1, 1921.

Ser. No. 158,696. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) SECURITY RUBBER AND BELTING COMPANY, Chicago, Ill. Filed Jan. 30, 1922.

LAGFACE

Particular description of goods.—Belting.
Claims use since Mar. 24, 1921.

Ser. No. 158,738. (CLASS 32. FURNITURE AND UPHOLSTERY.) WALLIN MFG. CO., St. Paul, Minn. Filed Feb. 1, 1922.

SHINE RITE

Particular description of goods.—Shoe-Shining Stools and Cabinets.
Claims use since Mar. 21, 1921.

Ser. No. 158,763. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) EVERYDAY PISTON RING COMPANY, INC., Rochester, N. Y. Filed Feb. 2, 1922.

EVERYDAY

Particular description of goods.—Piston Rings.
Claims use since July 1, 1921.

Ser. No. 158,834. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) ARTHUR PERRIN, Brookline, Mass. Filed Feb. 3, 1922.

MICROSPECS

Particular description of goods.—Binocular Optical Instruments.
Claims use since Jan. 6, 1922.

Ser. No. 158,908. (CLASS 27. HOROLOGICAL INSTRUMENTS.) WESTERN CLOCK CO., Peru, Ill. Filed Feb. 4, 1922.

BOB WHITE

Particular description of goods.—Clocks, Watches, and Component Parts Thereof.
Claims use since Nov. 21, 1921.

Ser. No. 158,977. (CLASS 12. CONSTRUCTION MATERIALS.) A. P. GREEN FIRE BRICK CO., Mexico, Mo. Filed Feb. 7, 1922.

"DIAMOND-JO"

The letters within the diamond are white, with the diamond background in red.
Particular description of goods.—Fire-Brick Cement.
Claims use since Oct. 1, 1921.

Ser. No. 158,994. (CLASS 38. PRINTS AND PUBLICATIONS.) THE NATIONAL EXCHANGE CLUB, Toledo, Ohio. Filed Feb. 7, 1922.

The EXCHANGITE

Particular description of goods.—Monthly Publication.
Claims use since Dec. 15, 1921.

Ser. No. 159,019. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) FARRAN-KINNEY COMPANY, Chicago, Ill. Filed Feb. 8, 1922.

FARRAN-OID DUAL FLEX

Particular description of goods.—Belts and Belting Made of a Composition of Rubber, Cotton Fabric, and Cord for Automobile and Power Transmission.
Claims use since Apr. 1, 1921.

Ser. No. 159,023. (CLASS 38. PRINTS AND PUBLICATIONS.) HAWKINS MORTGAGE CO., Portland, Ind. Filed Feb. 8, 1922.

The WELFARE BANKER

Particular description of goods.—Monthly Publication.
Claims use since June, 1921.

Ser. No. 159,083. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE BATES MANUFACTURING COMPANY, Orange, N. J. Filed Feb. 9, 1922. Under ten-year proviso.

BATES

Particular description of goods.—Numbering Machines.
Claims use since 1891.

Ser. No. 159,139. (CLASS 38. PRINTS AND PUBLICATIONS.) THE BUTTERICK PUBLISHING COMPANY, New York, N. Y. Filed Feb. 10, 1922.

The PROGRESSIVE GROCER

Particular description of goods.—Monthly Periodical.
Claims use since Jan. 18, 1922.

Ser. No. 159,160. (CLASS 37. PAPER AND STATIONERY.) THE MENTER CO., INC., New York, N. Y. Filed Feb. 10, 1922.

The MENTER PLAN of HOME BUDGETS

Applicant disclaims for the purpose of registration all of the words in the mark with the exception of the word "Menter" apart from the mark as shown.

Particular description of goods.—Blank Home Budget Books Published Monthly and at Other Intervals.

Claims use since Dec. 29, 1921.

Ser. No. 159,203. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) EASTERN ENGINEERING COMPANY, Revere, Mass. Filed Feb. 11, 1922.

THUNDERBOLT

Particular description of goods.—Amusement Devices—Namely, Roller Coasters.

Claims use since April, 1921.

Ser. No. 159,224. (CLASS 38. PRINTS AND PUBLICATIONS.) THE SPOKESMAN PUBLISHING COMPANY, Cincinnati, Ohio. Filed Feb. 11, 1922.

The AUTOMOBILE TRIMMER AND PAINTER

Particular description of goods.—Journal Published Monthly.

Claims use since Jan. 25, 1922.

Ser. No. 159,247. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) DELTA-STAR ELECTRIC COMPANY, Chicago, Ill. Filed Feb. 13, 1922.

Particular description of goods.—High-Voltage Switching and Protective Equipment, Consisting of Indoor and Outdoor Apparatus for High-Tension Electrical Installations; Outdoor and Indoor Substations and Parts Thereof, Bus-Bar Supports and Parts Thereof, Switches, Pole-Top Switches, Fuses, Chemical Fuses, Fuse Mountings, Wiring Supports, Insulators, Choke Coils, Entrance Tubes, Arresters, Fuse Tongs, and Plugs.

Claims use since September, 1908.

Ser. No. 159,248. (CLASS 38. PRINTS AND PUBLICATIONS.) DIXON & HILLEN, Oakland, Calif. Filed Feb. 13, 1922.

THE HOME DESIGNER

Particular description of goods.—Monthly Periodical.

Claims use since June 25, 1921.

Ser. No. 159,319. (CLASS 38. PRINTS AND PUBLICATIONS.) JABURG-MILLER CO. INC., New York, N. Y. Filed Feb. 14, 1922.

J·M·

Particular description of goods.—Monthly Catalogue.

Claims use since February, 1920.

Ser. No. 159,372. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) THE MCKONE TIRE & RUBBER COMPANY, Millersburg, Ohio. Filed Feb. 15, 1922.

McKONE MADE

No claim being made to the word "Made" apart from the mark shown in drawing.

Particular description of goods.—Rubber Tires for Automobiles.

Claims use since Dec. 1, 1921.

Ser. No. 159,439. (CLASS 12. CONSTRUCTION MATERIALS.) UNITED STATES GYPSUM COMPANY, Chicago, Ill. Filed Feb. 16, 1922. Under ten-year proviso.

Buckhorn

Particular description of goods.—Calcined Gypsum, Plaster of Paris, Wall Plaster, Gauging Plaster, and Cement Plaster.

Claims use since 1888.

Ser. No. 159,442. (CLASS 12. CONSTRUCTION MATERIALS.) UNITED STATES GYPSUM COMPANY, Chicago, Ill. Filed Feb. 16, 1922.

BADGER

Particular description of goods.—Calcined Gypsum, Plaster of Paris, Wall Plaster, and Finishing Plaster.
Claims use since 1914.

Ser. No. 159,447. (CLASS 12. CONSTRUCTION MATERIALS.) UNITED STATES GYPSUM COMPANY, Chicago, Ill. Filed Feb. 16, 1922. Under ten-year proviso.

FLINT

Particular description of goods.—Calcined Gypsum, Plaster of Paris, Wall Plaster and Cement Plaster.
Claims use since 1887.

Ser. No. 159,448. (CLASS 12. CONSTRUCTION MATERIALS.) UNITED STATES GYPSUM COMPANY, Chicago, Ill. Filed Feb. 16, 1922.

ELDORADO

Particular description of goods.—Calcined Gypsum, Plaster of Paris, and Wall Plaster.
Claims use since 1904.

Ser. No. 159,455. (CLASS 27. HOROLOGICAL INSTRUMENTS.) AMERICAN-SWISS WATCH CO. INC., Peekskill, N. Y. Filed Feb. 17, 1922.

FH

Particular description of goods.—Watches, Watch Movements, Watchcases, and Parts Thereof.
Claims use since July 25, 1921.

Ser. No. 159,505. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) WM. GIBSON & CO., LTD., Kinghorn, Fife, Scotland. Filed Feb. 18, 1922.

CENII

Particular description of goods.—Iron Heads for Golf Clubs and Iron-Headed Golf Clubs.
Claims use since about April, 1908.

Ser. No. 159,553. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) BURTON-DIXIE CORPORATION, Chicago, Ill. Filed Feb. 20, 1922. Under ten-year proviso.

Burton

Particular description of goods.—Cotton Batting.
Claims use since 1894.

Ser. No. 159,635. (CLASS 12. CONSTRUCTION MATERIALS.) UNITED STATES GYPSUM COMPANY, Chicago, Ill. Filed Feb. 20, 1922. Under ten-year proviso.

IMPERIAL

Particular description of goods.—Calcined Gypsum, Plaster of Paris, Wall Plaster, Cement Plaster, and Finishing Plaster.
Claims use since 1890.

Ser. No. 159,714. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) JAMES C. MILLIGAN, Pittsburgh, Pa. Filed Feb. 23, 1922.

SKY SKOOTER

Particular description of goods.—Toy Dart or Arrow.
Claims use since July 21, 1921.

Ser. No. 159,758. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) KASHMERE & ROBERTS, Wilkes-Barre, Pa. Filed Feb. 24, 1922.

KA-RO KAR

No claim being made to the word "Kar" apart from the mark shown in the drawing.
Particular description of goods.—Coaster Vehicles.
Claims use since on or about Feb. 10, 1921.

Ser. No. 159,860. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) MAXWELL C. FRANK, Oakland, Calif. Filed Feb. 27, 1922.

NON-SKID

Particular description of goods.—Washboards.
Claims use since May, 1918.

Ser. No. 159,880. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) WALTER C. PALMER, doing business as W. R. Palmer & Co., Cincinnati, Ohio. Filed Feb. 27, 1922.

I disclaim any attempt to cover in this registration "Protector" apart from the mark as shown.
Particular description of goods.—Washboards.
Claims use since Jan. 1, 1917.

Ser. No. 160,059. (CLASS 27. HOROLOGICAL INSTRUMENTS.) WILLIAM L. GILBERT CLOCK COMPANY, Winsted, Conn. Filed Mar. 2, 1922.

Thinlarm

Particular description of goods.—Clocks.
Claims use since Feb. 13, 1922.

Ser. No. 160,088. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE STEARNS & FOSTER COMPANY, Lockland, Ohio. Filed Mar. 2, 1922.

ANCHOR

Particular description of goods.—Mattresses.
Claims use since June 22, 1899.

Ser. No. 160,089. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE STEARNS & FOSTER COMPANY, Lockland, Ohio. Filed Mar. 2, 1922.

COSEY.

Particular description of goods.—Mattresses.
Claims use since June 1, 1918.

Ser. No. 160,091. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE STEARNS & FOSTER COMPANY, Lockland, Ohio. Filed Mar. 2, 1922.

PARAGON

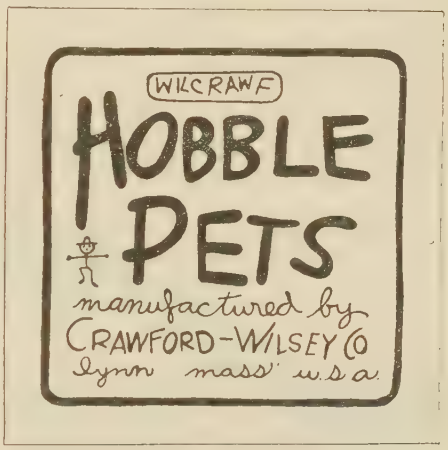
Particular description of goods.—Mattresses.
Claims use since Nov. 6, 1909.

Ser. No. 160,092. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE STEARNS & FOSTER COMPANY, Lockland, Ohio. Filed Mar. 2, 1922.

MISSION

Particular description of goods.—Mattresses.
Claims use since Apr. 1, 1905.

Ser. No. 160,117. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) CRAWFORD-WILSEY CO., Lynn, Mass. Filed Mar. 3, 1922.



No claim is made to the exclusive use of the words "Manufactured by" and "Lynn, Mass., U. S. A." apart from the mark shown in drawing.
Particular description of goods.—Wooden Figures of Animals.
Claims use since February, 1921.

Ser. No. 160,231. (CLASS 43. THREAD AND YARN.) HARRY COHEN, doing business as Harry Cohen & Co., Philadelphia, Pa. Filed Mar. 6, 1922.

Applicant disclaims the following: "8 Skeins," "Brand," "Four Fold Knitting Yarns," "Lot No.," "Color," "Phila." and "Sole Distributors," as well as the representation of the goods, apart from the mark as shown.
Particular description of goods.—Knitting Yarns.
Claims use since Feb. 24, 1922.

Ser. No. 160,336. (CLASS 43. THREAD AND YARN.) THE BARBOUR BROTHERS CO., Paterson, N. J. Filed Mar. 8, 1922.

No claim being made to the exclusive use of the words "One Pound," "Black," "6 Cord," "Irish Flax Sinew Thread for Lock Stitch Machines," or "Flax" apart from mark shown in drawing. The lining represents shading.

Particular description of goods.—Lock-Stitch Machine Thread.

Claims use since 1876.

Ser. No. 160,377. (CLASS 27. HOROLOGICAL INSTRUMENTS.) MAX A. ZOLLA, Chicago, Ill. Filed Mar. 8, 1922.

Sorority

Particular description of goods.—Watches.

Claims use since on or about Feb. 4, 1922.

Ser. No. 160,408. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) EUGENE GOLDMAN, doing business as Eugol Motor Truck Company, Chicago, Ill. Filed Mar. 9, 1922.

Eugol

Particular description of goods.—Motor Trucks.

Claims use since May 5, 1921.

Ser. No. 160,802. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) FAIRMONT GAS ENGINE & RAILWAY MOTOR CAR CO., Fairmont, Minn. Filed Mar. 17, 1922.

Fairmont

Particular description of goods.—Gasoline Engines and Hand-Car Engines.

Claims use since 1909.

Ser. No. 160,803. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) FAIRMONT GAS ENGINE & RAILWAY MOTOR CAR CO., Fairmont, Minn. Filed Mar. 17, 1922.

Fairmont

Particular description of goods.—Railway Motor Cars and Pressed-Steel Car Wheels.

Claims use since 1909.

Ser. No. 161,032. (CLASS 31. FILTERS AND REFRIGERATORS.) GEORGE R. CRAW, Fort Wayne, Ind. Filed Mar. 22, 1922.

FRIGI-SERVE

Particular description of goods.—Refrigerators.

Claims use since Jan. 28, 1922.

Ser. No. 161,194. (CLASS 27. HOROLOGICAL INSTRUMENTS.) KILCHENMANN FRERES, La Chaux-de-Fonds, Switzerland. Filed Mar. 24, 1922.

KF

ACTINA

Particular description of goods.—Watches and Parts of Watches.

Claims use since Dec. 23, 1919.

Ser. No. 161,216. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) WALTER W. WIDOE, Omaha, Nebr. Filed Mar. 24, 1922.

MELLO-FELLOW

Particular description of goods.—Smokers' Pipes.
Claims use since Dec. 15, 1919.

Ser. No. 161,305. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) E. I. DU PONT DE NEMOURS & COMPANY, Wilmington, Del. Filed Mar. 27, 1922.

DUMORITE

Particular description of goods.—Explosives, Firearms, Equipments, and Projectiles.
Claims use since Feb. 21, 1922.

Ser. No. 161,322. (CLASS 32. FURNITURE AND UPHOLSTERY.) KOMFY PRODUCTS COMPANY, Chicago, Ill. Filed Mar. 27, 1922.

KOMFY KID

Particular description of goods.—High Chairs for Children.
Claims use since Mar. 1, 1922.

Ser. No. 161,512. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) TEXTILEATHER COMPANY, New York, N. Y. Filed Mar. 30, 1922.

REGALEATHER

Particular description of goods.—Substitute Leather.
Claims use since July, 1920.

Ser. No. 161,536. (CLASS 27. HOROLOGICAL INSTRUMENTS.) MARSHALL FIELD & COMPANY, Chicago, Ill. Filed Mar. 31, 1922.

The words "8 day automatic alarm rings every 24 hours" do not form a part of registration apart from mark shown on drawing.
Particular description of goods.—Alarm Clocks.
Claims use since 1915.

Ser. No. 161,797. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) E. T. SLATTERY COMPANY, Boston, Mass. Filed Apr. 5, 1922.

"MARIE ANTOINETTE"

Particular description of goods.—Toothbrushes.
Claims use since Feb. 28, 1922.

Ser. No. 161,908. (CLASS 32. FURNITURE AND UPHOLSTERY.) UNION BED AND SPRING COMPANY, Chicago, Ill. Filed Apr. 7, 1922.

Masterpiece

Particular description of goods.—Bed Springs.
Claims use since Jan. 1, 1922.

Ser. No. 161,934. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) THE MILLS BROTHERS COMPANY, doing business as The American Products Company, Cincinnati, Ohio. Filed Apr. 8, 1922.

SANA-GENIC

Particular description of goods.—Toothbrushes, Hairbrushes, Shaving Brushes, Bath Brushes, and Vegetable Brushes.
Claims use since September, 1917.

Ser. No. 162,045. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PACIFIC TRADING CO., INC., San Francisco, Calif. Filed Apr. 10, 1922.

The Japanese hieroglyphics shown in the drawing meaning "Good Luck."

Particular description of goods.—Rice.

Claims use since January, 1919.

Ser. No. 163,220. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE R. D. JOHNSON MILLING COMPANY OF ALLEGANY COUNTY, Cumberland, Md. Filed May 2, 1922.

No claim being made to the words "Spring Wheat," "Flour," "Patent," and "Cumberland, Md." apart from mark shown in the drawing, the vertically-lined portions of the mark being red.

Particular description of goods.—Wheat Flour.

Claims use since Feb. 7, 1899.

TRADE-MARK REGISTRATIONS GRANTED

[ACT OF FEBRUARY 20, 1905.]

MAY 23, 1922.

155,185. A FIBER FABRIC IMITATING SILK FOR DRAPERIES, WALL COVERINGS, FURNITURE COVERINGS, ETC. A. THEO. ABBOTT & CO., Philadelphia, Pa.
Filed August 3, 1921. Serial No. 151,303. PUBLISHED JANUARY 31, 1922.

155,186. MACHINE TOOLS, MORE PARTICULARLY DESCRIBED AS "VERTICAL DRILLING, TAPPING, AND BORING MACHINE TOOLS." THE ACME MACHINE TOOL COMPANY, Cincinnati, Ohio.
Filed August 26, 1921. Serial No. 152,225. PUBLISHED FEBRUARY 7, 1922.

155,187. MONTHLY PUBLICATIONS. EDWARD H. AHRENS, New York, N. Y.
Filed October 17, 1921. Serial No. 154,173. PUBLISHED FEBRUARY 21, 1922.

155,188. PRINTED BOOKS AND CIRCULARS. ALLIED LABOR PRESS ASSOCIATION, Boston, Mass.
Filed July 14, 1921. Serial No. 150,342. PUBLISHED FEBRUARY 28, 1922.

155,189. PRINTED MAPS, PAMPHLETS, PRINTED BOOKS PUBLISHED ANNUALLY AND ALSO FROM TIME TO TIME. AMERICAN AUTOMOBILE ASSOCIATION, Washington, D. C., and New York, N. Y.
Filed August 30, 1921. Serial No. 152,360. PUBLISHED DECEMBER 27, 1921.

155,190. PRINTED MAPS, PAMPHLETS, PRINTED BOOKS PUBLISHED ANNUALLY AND ALSO FROM TIME TO TIME. AMERICAN AUTOMOBILE ASSOCIATION, Washington, D. C., and New York, N. Y.
Filed August 30, 1921. Serial No. 152,361. PUBLISHED DECEMBER 27, 1921.

155,191. CALENDARS, AN ANNUAL PUBLICATION. THE AMERICAN CALENDAR COMPANY, Greenville, Tenn.
Filed January 6, 1921. Serial No. 141,893. PUBLISHED FEBRUARY 7, 1922.

155,192. CERTAIN NAMED LAUNDRY APPLIANCES AND MACHINES. THE AMERICAN LAUNDRY MACHINERY COMPANY, Norwood, Ohio.
Filed November 6, 1920. Serial No. 139,243. PUBLISHED FEBRUARY 21, 1922.

155,193. CERTAIN NAMED TEXTILE FABRICS. AMERICAN WHOLESALE CORPORATION (BALTIMORE BARGAIN HOUSE), Baltimore and Cumberland, Md.
Filed August 13, 1920. Serial No. 136,055. PUBLISHED JANUARY 31, 1922.

155,194. PUBLICATIONS, (PUBLISHED MONTHLY.) AMERICAN WHOLESALE CORPORATION (BALTIMORE BARGAIN HOUSE), Baltimore and Cumberland, Md.
Filed August 13, 1920. Serial No. 136,058. PUBLISHED JANUARY 31, 1922.

155,195. A NONALCOHOLIC, MALTLESS BEVERAGE SOLD AS A SOFT DRINK. THE ARKOLA COMPANY, Little Rock, Ark.
Filed March 30, 1921. Serial No. 145,425. PUBLISHED FEBRUARY 21, 1922.

155,196. PAINTS FOR MARINE AND HOUSE, USED FOR INTERIOR AND EXTERIOR SURFACE. ARNESTO PAINT CO. INC., New York, N. Y.
Filed November 2, 1921. Serial No. 154,910. PUBLISHED FEBRUARY 14, 1922.

155,197. MOTION-PICTURE FILMS. ARROW FILM CORPORATION, New York, N. Y.
Filed August 11, 1921. Serial No. 151,650. PUBLISHED FEBRUARY 14, 1922.

155,198. MOTION-PICTURE FILMS. ARROW FILM CORPORATION, New York, N. Y.
Filed August 11, 1921. Serial No. 151,651. PUBLISHED FEBRUARY 14, 1922.

155,199. WOOLEN PIECE GOODS. ATLANTIC MILLS, Providence, R. I.
Filed October 29, 1921. Serial No. 154,717. PUBLISHED JANUARY 24, 1922.

155,200. METAL PRODUCTS CONSISTING OF FUNNELS, STRAINERS, COMMODES, FOOT TUBS, PANS, BASINS, DIPPERS, CUPS, KETTLES, CANNERS, PLATES, COFFEEPOTS, AND PERCOLATORS. ATLANTIC STAMPING COMPANY, Rochester, N. Y.
Filed November 5, 1921. Serial No. 155,039. PUBLISHED FEBRUARY 14, 1922.

155,201. PERIODICALS PUBLISHED WEEKLY. THE ATLAS PUBLISHING COMPANY, New York, N. Y.
Filed November 14, 1921. Serial No. 155,332. PUBLISHED JANUARY 17, 1922.

155,202. BROADCLOTH PIECE GOODS. C. BAHNSEN & CO., INC., New York, N. Y.
Filed February 16, 1920. Serial No. 128,423. PUBLISHED JANUARY 31, 1922.

155,203. ENVELOPES AND WRAPPERS FOR MAILING PURPOSES. DANIEL L. BAXTER, Pawtucket, R. I.
Filed July 9, 1921. Serial No. 150,181. PUBLISHED JANUARY 31, 1922.

155,204. WATCHES. W. J. BERNARD, New York, N. Y.
Filed November 4, 1921. Serial No. 155,009. PUBLISHED FEBRUARY 21, 1922.

155,205. HOLLOW ALUMINUM WARE: TEAPOTS, COFFEEPOTS, COFFEE PERCOLATORS, KETTLES, CASSEROLES, AND LADLES. GEORGE BORGFELDT & CO., New York, N. Y.
Filed September 16, 1921. Serial No. 152,978. PUBLISHED FEBRUARY 14, 1922.

155,206. PHONOGRAPHIC MACHINES. BRENARD MANUFACTURING COMPANY, Iowa City, Iowa.
Filed November 14, 1921. Serial No. 155,335. PUBLISHED JANUARY 10, 1922.

155,207. CERTAIN NAMED PAPERS. BRITTAINS, LIMITED, Cheddleton, Staffordshire, England.
Filed October 3, 1921. Serial No. 153,636. PUBLISHED JANUARY 31, 1922.

155,208. COMPLETELY-PRINTED BOOKS. BROCKMANN & COMPANY, Charlotte, N. C.
Filed September 17, 1921. Serial No. 153,030. PUBLISHED FEBRUARY 7, 1922.

155,209. BRUSHES BELONGING TO MILLING MACHINERY, SUCH AS GRAIN-CLEANING AND CERTAIN OTHER NAMED MACHINES. GEBRÜDER BÜHLER, Uzwil, Switzerland.
Filed August 16, 1921. Serial No. 151,819. PUBLISHED FEBRUARY 14, 1922.

155,210. ALUMINUM TEAKETTLES, SKILLETS, STEW KETTLES, MEAT ROASTERS, COFFEE AND TEA POTS, AND FRYING PANS. BURNS PATTERN & MACHINE COMPANY, Detroit, Mich.

Filed October 29, 1921. Serial No. 154,719. PUBLISHED FEBRUARY 14, 1922.

155,211. IRONING BOARDS. WM. CAMERON & CO. INC., Waco, Tex.

Filed August 4, 1921. Serial No. 151,357. PUBLISHED JANUARY 31, 1922.

155,212. NONALCOHOLIC, MALTLESS BEVERAGE SOLD AS A SOFT DRINK AND SIRUP FOR MANUFACTURING THE SAME. CHEMICAL WORKS BRUGG, LIMITED, Brugg, Switzerland.

Filed July 21, 1921. Serial No. 150,732. PUBLISHED FEBRUARY 7, 1922.

155,213. SELF-CLEANING PIT MATS FOR BOWLING ALLEYS AND DEVICES TO BE ATTACHED TO RETURN TROUGHS FOR TRAPPING AND CLEANING THE BALLS. WALTER CHOINSKI, Milwaukee, Wis.

Filed October 1, 1921. Serial No. 153,587. PUBLISHED FEBRUARY 7, 1922.

155,214. SMOKING AND CHEWING TOBACCO. CHRISTIAN PEPER TOBACCO CO., St. Louis, Mo.

Filed July 7, 1921. Serial No. 150,101. PUBLISHED JANUARY 31, 1922.

155,215. A LIQUID COMPOUND FOR SEALING PUNCTURES AND SLOW LEAKS IN PNEUMATIC TIRES. CLINTON & CAMERON, South Boston, Mass.

Filed July 21, 1921. Serial No. 150,731. PUBLISHED NOVEMBER 8, 1921.

155,216. KNITTED AND WOVEN WOOLEN AND WORSTED CLOTHS AND FABRICS HAVING A FLEECY PILE OR SURFACE. CONTINENTAL MILLS, INC., Philadelphia, Pa.

Filed November 23, 1921. Serial No. 155,805. PUBLISHED FEBRUARY 14, 1922.

155,217. PILLOWCASES, SHEETS, AND BOLSTER COVERINGS. CONVERSE & COMPANY, New York, N. Y.

Filed November 12, 1921. Serial No. 155,301. PUBLISHED FEBRUARY 28, 1922.

155,218. BROAD SILKS AND DRESS SATINS IN THE PIECE, CRÊPE AND SILK SHIRTINGS PIECE GOODS. B. EDMUND DAVID INC., New York, N. Y.

Filed October 27, 1921. Serial No. 154,639. PUBLISHED FEBRUARY 7, 1922.

155,219. QUARTERLY PUBLICATIONS. THE DELTA SIGMA PHI FRATERNITY, New York, N. Y., and Washington, D. C.

Filed October 4, 1921. Serial No. 153,716. PUBLISHED JANUARY 17, 1922.

155,220. INK, PARTICULARLY INK ADAPTED FOR USE ON STENCIL DUPLICATORS. A. B. DICK COMPANY, Chicago, Ill.

Filed October 5, 1921. Serial No. 153,757. PUBLISHED JANUARY 10, 1922.

155,221. SAWS, SAW SETS, AND SCREW DRIVERS. HENRY DISSTON & SONS, INCORPORATED, Philadelphia, Pa.

Filed September 22, 1921. Serial No. 153,206. PUBLISHED FEBRUARY 7, 1922.

155,222. A MONTHLY PERIODICAL. MAE L. DOWNS, Philadelphia, Pa.

Filed October 24, 1921. Serial No. 154,490. PUBLISHED JANUARY 17, 1922.

155,223. A MAGAZINE SECTION PUBLISHED MONTHLY. EASTERN ADVERTISING COMPANY, New York, N. Y.

Filed October 8, 1921. Serial No. 153,878. PUBLISHED FEBRUARY 21, 1922.

155,224. PERIODICALS PUBLISHED MONTHLY AND AT OTHER INTERVALS. WILLIAM EHRMAN, New York, N. Y.

Filed November 14, 1921. Serial No. 155,341. PUBLISHED FEBRUARY 7, 1922.

155,225. WATCHES AND WATCH MOVEMENTS. ELGIN NATIONAL WATCH COMPANY, Chicago, Ill.

Filed October 11, 1921. Serial No. 153,971. PUBLISHED FEBRUARY 21, 1922.

155,226. HAIR NETS. FAN TAN NOVELTY CO., New York, N. Y.

Filed August 10, 1921. Serial No. 151,620. PUBLISHED JANUARY 31, 1922.

155,227. NEW AND CANCELLED UNITED STATES AND FOREIGN STAMPS. FENNELL STAMP COMPANY, St. Louis, Mo.

Filed August 1, 1921. Serial No. 151,213. PUBLISHED JANUARY 24, 1922.

155,228. TEXTILE HOSPITAL BLANKETS. JOHN W. FILLMAN, Philadelphia, Pa.

Filed September 29, 1921. Serial No. 153,504. PUBLISHED FEBRUARY 14, 1922.

155,229. MONTHLY MAGAZINE OF MEN'S APPAREL AND CURRENT ITEMS OF GENERAL INTEREST. THE FRANKLIN COMPANY, Chicago, Ill.

Filed November 8, 1921. Serial No. 155,166. PUBLISHED JANUARY 17, 1922.

155,230. COTTON PIECE GOODS. GARNER PRINT WORKS AND BLEACHERY, New York, N. Y.

Filed July 28, 1921. Serial No. 151,042. PUBLISHED FEBRUARY 14, 1922.

155,231. WEEKLY MAGAZINE. THE GEHRING PUBLISHING COMPANY, New York, N. Y.

Filed November 12, 1921. Serial No. 155,308. PUBLISHED JANUARY 31, 1922.

155,232. A PUBLICATION ISSUED MONTHLY FROM OCTOBER TO MAY, INCLUSIVE. GENERAL CHEMICAL COMPANY, New York, N. Y.

Filed October 27, 1921. Serial No. 154,644. PUBLISHED JANUARY 17, 1922.

155,233. PRINTED PERIODICALS PUBLISHED MONTHLY AND AT OTHER INTERVALS. EDMUND WRIGHT GINSBERG CO., INC., New York, N. Y.

Filed October 19, 1921. Serial No. 154,310. PUBLISHED JANUARY 24, 1922.

155,234. ENAMELED SILK FISHING LINES. B. F. GLADDING & CO. INC., South Otselic, N. Y.

Filed October 28, 1921. Serial No. 154,688. PUBLISHED JANUARY 31, 1922.

155,235. FISHING LINES. B. F. GLADDING & CO. INC., South Otselic, N. Y.

Filed October 29, 1921. Serial No. 154,735. PUBLISHED JANUARY 31, 1922.

155,236. BRAIDED FISHING LINES. B. F. GLADDING & CO. INC., South Otselic, N. Y.

Filed October 29, 1921. Serial No. 154,739. PUBLISHED JANUARY 31, 1922.

155,237. A PERIODIC PUBLICATION. HALLIWELL & PATTON PUBLISHING CO., INC., Chicago, Ill.

Filed February 3, 1921. Serial No. 143,128. PUBLISHED DECEMBER 27, 1921.

155,238. PHONOGRAPHS. F. W. HANPETER FURNITURE COMPANY, St. Louis, Mo.

Filed June 11, 1919. Serial No. 119,476. PUBLISHED NOVEMBER 18, 1919.

155,239. COMBINED LISTING AND MAILING SHEETS. MILTON HARTMAN, Detroit, Mich.

Filed November 6, 1920. Serial No. 139,277. PUBLISHED JANUARY 24, 1922.

155,240. MALT EXTRACT. JOHN J. HAUPT, Pittsburgh, Pa.

Filed September 4, 1920. Serial No. 136,841. PUBLISHED FEBRUARY 28, 1922.

155,241. ANNUAL CATALOGUES. PETER HENDERSON & CO., New York, N. Y.

Filed July 27, 1921. Serial No. 151,003. PUBLISHED JANUARY 3, 1922.

155,242. DAILY PUBLICATION. HISPANIC AMERICAN PUBLISHING CO. INC., New York, N. Y.
Filed April 12, 1921. Serial No. 146,075. PUBLISHED JANUARY 24, 1922.

155,243. TYPEWRITER RIBBONS AND CARBON PAPER. HOLBROOK & GIBSON, Chicago, Ill.
Filed November 8, 1921. Serial No. 155,174. PUBLISHED JANUARY 10, 1922.

155,244. CERTAIN NAMED HOROLOGICAL INSTRUMENTS. GEORGE HOLLINWOOD, Cranford, N. J.
Filed May 10, 1921. Serial No. 147,513. PUBLISHED JANUARY 17, 1922.

155,245. CERTAIN NAMED ARTICLES OF ALUMINUM WARE USED FOR HOUSEHOLD AND KITCHEN PURPOSES. ILLINOIS PURE ALUMINUM CO., Lemont, Ill.
Filed August 2, 1921. Serial No. 151,273. PUBLISHED FEBRUARY 14, 1922.

155,246. LOCKS FOR AUTOMOBILE STEERING MECHANISM. KARLOK MANUFACTURING COMPANY, Newark, N. J.
Filed July 25, 1921. Serial No. 150,903. PUBLISHED FEBRUARY 14, 1922.

155,247. EYEGLASSES, TEMPLES, AND EYEGLASS BRIDGES AND NOSE PIECES FOR THE SAME. B. A. KELLER, Newark, N. J.
Filed August 6, 1921. Serial No. 151,516. PUBLISHED FEBRUARY 14, 1922.

155,248. RUBBER STAMPS AND MARKING DEVICES. MICHAEL C. LEDERER, Cleveland, Ohio.
Filed August 25, 1921. Serial No. 152,178. PUBLISHED JANUARY 31, 1922.

155,249. BULLETINS FOR INSURANCE PURPOSES REGARDING CONDITION OF BUILDINGS, ISSUED PERIODICALLY. MCLEAN REPORTS, INC., Boston, Mass.
Filed October 6, 1921. Serial No. 153,820. PUBLISHED JANUARY 17, 1922.

155,250. MAGNESIUM ALLOYS AND CASTINGS AND FORGINGS PRODUCED THEREFROM. MAGNA METAL CORPORATION, Newark, N. J.
Filed August 11, 1921. Serial No. 151,682. PUBLISHED FEBRUARY 28, 1922.

155,251. SILK PIECE GOODS. H. R. MALLINSON & CO., INC., New York, N. Y.
Filed November 23, 1921. Serial No. 155,819. PUBLISHED FEBRUARY 14, 1922.

155,252. PHONOGRAPHS. MANUFACTURERS' PHONOGRAPH CO., INC., New York, N. Y.
Filed September 24, 1921. Serial No. 153,310. PUBLISHED JANUARY 10, 1922.

155,253. ALARM CLOCKS. MARSHALL FIELD & COMPANY, Chicago, Ill.
Filed April 22, 1921. Serial No. 146,541. PUBLISHED JANUARY 31, 1922.

155,254. NONALCOHOLIC, NONCEREAL, MALTLESS BEVERAGES SOLD AS SOFT DRINKS. CHAS. W. MEISEZAHL, New York, N. Y.
Filed April 13, 1921. Serial No. 146,127. PUBLISHED FEBRUARY 28, 1922.

155,255. MUSIC ROLLS FOR PLAYER PIANOS AND OTHER AUTOMATIC MUSICAL INSTRUMENTS AND RECORDS FOR PHONOGRAPHS, TALKING MACHINES, AND THE LIKE. MEL-O-DEE MUSIC COMPANY INC., New York, N. Y.
Filed June 23, 1921. Serial No. 149,552. PUBLISHED JANUARY 10, 1922.

155,256. LUMBER-TRADE PERIODICAL PUBLISHED FROM TIME TO TIME OR AT IRREGULAR INTERVALS. GEORGE E. MERRILL COMPANY, Salt Lake City, Utah.
Filed August 17, 1921. Serial No. 151,882. PUBLISHED JANUARY 24, 1922.

155,257. GUMMED-TAPE MOISTENING AND CUTTING MACHINES. METAL SPECIALTIES MANUFACTURING COMPANY, Chicago, Ill.
Filed July 25, 1921. Serial No. 150,918. PUBLISHED JANUARY 31, 1922.

155,258. BEDCLOTHING—NAMELY, COMFORTABLES, QUILTS, BLANKETS, AND BEDSPREADS. MILLER BROS. & COMPANY, Philadelphia, Pa.
Filed October 4, 1921. Serial No. 153,738. PUBLISHED FEBRUARY 7, 1922.

155,259. THREAD GUIDES FOR TEXTILE MACHINERY. MITCHELL-BISSELL COMPANY, New York, N. Y.
Filed October 11, 1921. Serial No. 153,986. PUBLISHED FEBRUARY 14, 1922.

155,260. THREAD GUIDES FOR TEXTILE MACHINERY. MITCHELL-BISSELL COMPANY, New York, N. Y.
Filed October 10, 1921. Serial No. 153,946. PUBLISHED FEBRUARY 14, 1922.

155,261. GUMMED-TAPE MOISTENING AND CUTTING MACHINES. METAL SPECIALTIES MANUFACTURING COMPANY, Chicago, Ill.
Filed July 25, 1921. Serial No. 150,919. PUBLISHED JANUARY 31, 1922.

155,262. BOOKHOLDERS. WHITNEY MOCKBRIDGE, London, Middlesex, England.
Filed July 22, 1921. Serial No. 150,817. PUBLISHED FEBRUARY 7, 1922.

155,263. EGG CANDLERS. WILLIAM L. MORRIS, Broseley, Mo.
Filed October 8, 1921. Serial No. 153,889. PUBLISHED FEBRUARY 14, 1922.

155,264. DRILLING, REAMING, AND TAPPING MACHINES. THE NATIONAL AUTOMATIC TOOL COMPANY, Richmond, Ind.
Filed September 24, 1921. Serial No. 153,314. PUBLISHED FEBRUARY 7, 1922.

155,265. PRINTED PAMPHLETS. NATIONAL CATHOLIC WELFARE COUNCIL, Washington, D. C.
Filed September 24, 1921. Serial No. 153,312. PUBLISHED JANUARY 17, 1922.

155,266. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed September 6, 1921. Serial No. 152,630. PUBLISHED FEBRUARY 21, 1922.

155,267. WEEKLY NEWSPAPER. THE NEAR EAST AMERICAN PUBLISHING COMPANY, Washington, D. C.
Filed October 3, 1921. Serial No. 153,685. PUBLISHED FEBRUARY 7, 1922.

155,268. MINERAL WATERS AND CERTAIN NAMED SOFT DRINKS. NEW YORK MINERAL WATER COMPANY, Cincinnati, Ohio.
Filed February 1, 1921. Serial No. 143,056. PUBLISHED FEBRUARY 28, 1922.

155,269. OPHTHALMIC LENSES. ONEPIECE BIFOCAL LENS COMPANY, Indianapolis, Ind.
Filed September 20, 1921. Serial No. 153,152. PUBLISHED FEBRUARY 14, 1922.

155,270. UPRIGHT, GRAND, PLAYER, AND REPRODUCING PIANOS. THE PACKARD PIANO COMPANY, Fort Wayne, Ind.
Filed July 6, 1921. Serial No. 150,081. PUBLISHED JANUARY 31, 1922.

155,271. TALKING-MACHINES AND SUPPLIES—NAMELY, NEEDLES AND REPRODUCERS AND PARTS. THE PERFEK'TONE CORPORATION, Philadelphia, Pa.
Filed April 5, 1919. Serial No. 117,195. PUBLISHED NOVEMBER 2, 1920.

155,272. CERTAIN NAMED LAUNDRY APPLIANCES. THE PIERSON COMPANY, Rockford, Ill.
Filed May 26, 1919. Serial No. 118,931. PUBLISHED JANUARY 10, 1922.

155,273. SEMIMONTHLY MAGAZINE. THE PLUMBERS TRADE JOURNAL PUBLISHING COMPANY, New York, N. Y.

Filed October 25, 1921. Serial No. 154,567. PUBLISHED FEBRUARY 21, 1922.

155,274. PHOTOGRAPHIC PRINTS ON METAL. THE RADIOTONE PHOTO COMPANY, Chicago, Ill., assignor to The Radiotone Company, Dover, Del., a Corporation of Delaware.

Filed September 30, 1921. Serial No. 153,567. PUBLISHED JANUARY 17, 1922.

155,275. TALKING MACHINES AND TALKING-MACHINE NEEDLES, RECORD REPEATERS, SOUND BOXES, ALBUMS, AND MECHANICAL MOTORS. REFLEXO PRODUCTS CO. INC., New York, N. Y.

Filed July 11, 1921. Serial No. 150,254. PUBLISHED JANUARY 31, 1922.

155,276. LAUNDRY WASHING MACHINES. H. C. ROBERTS ELECTRIC SUPPLY COMPANY, Philadelphia, Pa.

Filed June 27, 1921. Serial No. 149,722. PUBLISHED JANUARY 31, 1922.

155,277. WRAPPERS ON WAXED LUNCH ROLLS. ROBERTSON PAPER CO., Bellows Falls, Vt.

Filed July 30, 1921. Serial No. 151,187. PUBLISHED FEBRUARY 28, 1922.

155,278. UPRIGHT AND GRAND PIANOS AND PLAYER PIANOS. ROTH BROS. PIANO CO., INC., New York, N. Y.

Filed November 7, 1921. Serial No. 155,121. PUBLISHED JANUARY 10, 1922.

155,279. WRITING FLUID. ROYAL INK & MUCILAGE CO., INC., Pittsburgh, Pa.

Filed February 7, 1920. Serial No. 128,112. PUBLISHED MAY 4, 1920.

155,280. FOUNTAIN PENS. SALZ BROTHERS, New York, N. Y.

Filed October 28, 1921. Serial No. 154,708. PUBLISHED FEBRUARY 28, 1922.

155,281. A MALTLESS NONINTOXICATING BEVERAGE AND SIRUP FOR MAKING THE SAME. SAN ANTONIO BEVERAGE SYRUP CO., San Antonio, Tex.

Filed August 2, 1921. Serial No. 151,292. PUBLISHED SEPTEMBER 13, 1921.

155,282. CIGARS. EUGENE J. SCHAEFER, executor of the estate of Joseph J. Schaefer, Dayton, Ohio.

Filed April 29, 1921. Serial No. 146,989. PUBLISHED DECEMBER 6, 1921.

155,283. WATCHES AND WATCH MOVEMENTS, DIALS, AND CASES. ADOLPHE SCHWOB, INC., New York, N. Y.

Filed April 2, 1921. Serial No. 145,650. PUBLISHED JANUARY 10, 1922.

155,284. FLAVORING SIRUPS AND A MALTLESS NONALCOHOLIC BEVERAGE SOLD IN BOTTLES AND AT FOUNTAINS AS A SOFT DRINK. GEORGE A. SEEL, Galveston, Tex.

Filed August 5, 1921. Serial No. 151,493. PUBLISHED FEBRUARY 14, 1922.

155,285. TACKLE BLOCKS. P. B. SELTER, Detroit, Mich.

Filed July 22, 1921. Serial No. 150,832. PUBLISHED FEBRUARY 14, 1922.

155,286. CERTAIN NAMED INKS AND INKING MATERIALS. THE SHERWIN-WILLIAMS COMPANY, Cleveland, Ohio.

Filed September 10, 1920. Serial No. 137,048. PUBLISHED JANUARY 31, 1922.

155,287. WOVEN COTTON FABRICS IN THE PIECE. GEORGE ALBERT STAFFORD, New York, N. Y.

Filed October 31, 1919. Serial No. 124,421. PUBLISHED JANUARY 24, 1922.

155,288. PLAYER PIANOS, PIANO PLAYERS, PIANOS, AND ORGANS. M. STEINERT & SONS CO., Boston, Mass.

Filed October 27, 1921. Serial No. 154,671. PUBLISHED JANUARY 10, 1922.

155,289. REFRIGERATORS. ISAAC FRANK STEVENS, Nashua, N. H.

Filed August 17, 1921. Serial No. 151,889. PUBLISHED FEBRUARY 7, 1922.

155,290. REFRIGERATORS. ISAAC FRANK STEVENS, Nashua, N. H.

Filed August 17, 1921. Serial No. 151,890. PUBLISHED FEBRUARY 7, 1922.

155,291. FILES. TACONY FILE & HARDWARE CO. INC., Philadelphia, Pa.

Filed October 28, 1921. Serial No. 154,712. PUBLISHED FEBRUARY 14, 1922.

155,292. STENCIL AND MARKING INK. THE TAYLOR BROS. CO., Cleveland, Ohio.

Filed November 1, 1920. Serial No. 139,061. PUBLISHED JANUARY 10, 1922.

155,293. CERTAIN NAMED LAUNDRY APPLIANCES. THE THOMSON-DIGGS COMPANY, Sacramento, Calif.

Filed May 24, 1921. Serial No. 148,178. PUBLISHED FEBRUARY 14, 1922.

155,294. TOBACCO EXTRACT USED FOR SAUCING OR FLAVORING TOBACCO. TRAHERN TOBACCO CO., INC., Clarksville, Tenn.

Filed September 12, 1921. Serial No. 152,871. PUBLISHED FEBRUARY 14, 1922.

155,295. A MEDICINE USED IN THE TREATMENT OF DISEASES OF THE LUNGS. TREMONT MANUFACTURING COMPANY, Greensburg, Pa.

Filed July 19, 1921. Serial No. 150,641. PUBLISHED JANUARY 31, 1922.

155,296. RUBBER HEELS. TWIN TUBE & RUBBER COMPANY, Chicago Heights, Ill.

Filed April 24,1919. Serial No. 117,824. PUBLISHED DECEMBER 20, 1921.

155,297. CIGARS, CIGARETTES, CHEROOTS, SNUFF, AND MANUFACTURED SMOKING AND CHEWING TOBACCO. UNITED CIGAR STORES COMPANY OF AMERICA, Jersey City, N. J., and New York, N. Y.

Filed October 26, 1921. Serial No. 154,625. PUBLISHED FEBRUARY 14, 1922.

155,298. CERTAIN NAMED PAPER AND STATIONERY. UNITED STATES ENVELOPE COMPANY, Springfield, Mass.

Filed September 9, 1921. Serial No. 152,775. PUBLISHED JANUARY 31, 1922.

155,299. MOP WRINGERS. VAN ARNAM MANUFACTURING COMPANY, Fort Wayne, Ind.

Filed August 26, 1921. Serial No. 152,222. PUBLISHED FEBRUARY 14, 1922.

155,300. PRINTED, EMBOSSED, AND ENGRAVED ADVERTISING CARDS, SHEETS, CIRCULARS, AND PAMPHLETS, PRINTED ADVERTISEMENTS. WALLY, INC., Cleveland, Ohio.

Filed September 20, 1921. Serial No. 153,164. PUBLISHED FEBRUARY 7, 1922.

155,301. TOILET PAPER. S. WALTER, INC., Philadelphia, Pa.

Filed October 6, 1921. Serial No. 153,831. PUBLISHED JANUARY 31, 1922.

155,302. MOTION-PICTURE-PROJECTING APPARATUS. WITHINGTON-HUNTING, INC., New York, N. Y.

Filed August 25, 1921. Serial No. 152,197. PUBLISHED FEBRUARY 14, 1922.

155,303. COTTON PIECE GOODS. WOHL, SOUTH & CO., New York, N. Y.

Filed September 25, 1920. Serial No. 137,607. PUBLISHED JUNE 7, 1921.

155,304. WRITING INK. R. EDWIN WOLFRATH, New York, N. Y.

Filed July 5, 1921. Serial No. 150,046. PUBLISHED JANUARY 10, 1922.

155,305. LIFTING JACKS AND PARTS THEREOF. YELLOW JACK-IT MFG. CO., Chicago, Ill.

Filed August 5, 1921. Serial No. 151,501. PUBLISHED FEBRUARY 14, 1922.

TRADE-MARK REGISTRATIONS GRANTED

[ACT OF MARCH 19, 1920, SEC. 1 (b)].

MAY 23, 1922.

THESE REGISTRATIONS ARE NOT SUBJECT TO OPPOSITION.

155,306. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMERICAN OYSTER COMPANY, Providence, R. I. Filed Dec. 12, 1921. Serial No. 156,560.

Saltesea

Particular description of goods.—Canned Oysters, Clams, and Chowder.
Claims use since Oct. 4, 1911.

155,307. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) ASHAWAY LINE & TWINE MANUFACTURING COMPANY, Ashaway, R. I. Filed Jan. 12, 1922. Serial No. 157,810.

ORIGINAL CUTTYHUNK

Particular description of goods.—Fishing Lines.
Claims use since 1904.

155,308. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) AUTOMOTIVE ACCESSORIES, INC., Kokomo, Ind. Filed Sept. 22, 1921. Serial No. 153,194.

REARVUMIRROR

Particular description of goods.—Rear-View Mirrors for Vehicles.
Claims use since Nov. 15, 1920.

155,309. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BESTEVER PRODUCTS CO., Chicago, Ill. Filed Sept. 28, 1921. Serial No. 153,431.

BESTEVER

Particular description of goods.—Ironing Tablets.
Claims use since May, 1917.

155,310. (CLASS 39. CLOTHING.) CADET KNITTING COMPANY, Philadelphia, Pa. Filed May 6, 1921. Serial No. 147,280.

Lorenz

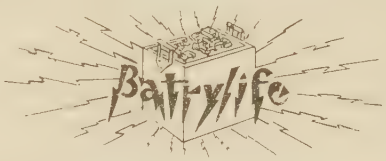
Particular description of goods.—Sweaters and Underwear of Knitted Fabric.
Claims use since 1919.

155,311. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) THE CANTON-BLACKSTONE COMPANY, Canton, Ohio. Filed Oct. 31, 1919. Serial No. 124,390.

KNIGHT

Particular description of goods.—Rubber Tires, Rubber-Tire Casings, and Inner Tubes.
Claims use since Jan. 12, 1912.

155,312. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHICAGO CHEMICAL COMPANY, Chicago, Ill. Filed Jan. 14, 1922. Serial No. 157,915.



Particular description of goods.—A Chemical Solution for Use in Electric Storage Batteries.
Claims use since June 1, 1920.

155,313. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) EDWARD F. COGLEY, Omaha, Nebr. Filed Jan. 17, 1921. Serial No. 142,329.

Pronto

Particular description of goods.—Rubber-Tire Repair Outfits Containing Inner-Tube Patches and Rubber Cement.
Claims use since Aug. 5, 1916.

155,314. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) COMMERCIAL SOAP COMPANY, Reno, Nev. Filed Dec. 12, 1921. Serial No. 156,569.

Lemonolyve

Particular description of goods.—Toilet Soap.
Claims use since May 12, 1919.

155,315. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHARLES I. COOK, Menominee, Mich. Filed Nov. 5, 1920. Serial No. 139,193.

GOLDEN-CUT

Particular description of goods.—Coffee.
Claims use since Oct. 15, 1920.

155,316. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DON S. COOK, North Eaton, Ohio. Filed Jan. 17, 1921. Serial No. 142,326.

ANTICAKE

Particular description of goods.—Medicinal Preparation Used in the Treatment of Caked Bag, Bunches, Sore, Cut, and Chapped Teats, and Inflamed Parts.
Claims use since Dec. 15, 1920.

155,317. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ROSE DECOMBE COOK, Portland, Me. Filed Mar. 1, 1921. Serial No. 144,180.

Decombe

Particular description of goods.—Healing and Beautifying Paste.
Claims use since Jan. 1, 1921.

155,318. (CLASS 39. CLOTHING.) DEUTZ & ORTENBERG, INC., New York, N. Y. Filed Sept. 13, 1921. Serial No. 152,887.

Adair

Particular description of goods.—Waists.
Claims use since Jan. 1, 1921.

155,319. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) JOSEPH R. DEW, Indianapolis, Ind. Filed Oct. 14, 1921. Serial No. 154,078.

The Perfection

Particular description of goods.—Phonographs and Parts Thereof.
Claims use since Sept. 1, 1918.

155,320. (CLASS 39. CLOTHING.) EMERY & BEERS COMPANY, INC., New York, N. Y. Filed Nov. 29, 1920. Serial No. 140,375.

"Sheresilk"

Particular description of goods.—Stockings.
Claims use since Nov. 17, 1920.

155,321. (CLASS 39. CLOTHING.) EMERY & BEERS COMPANY, INC., New York, N. Y. Filed Jan. 15, 1921. Serial No. 142,285.

"Shere-Lyle"

Particular description of goods.—Stockings.
Claims use since Jan. 8, 1921.

155,322. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE FAULTLESS RUBBER COMPANY, Ashland, Ohio. Filed Feb. 6, 1922. Serial No. 158,921.

Faultless

Particular description of goods.—Squawkers, Balloons, Balls, Dolls, and Animals, All Made Essentially of Rubber.
Claims use since 1901.

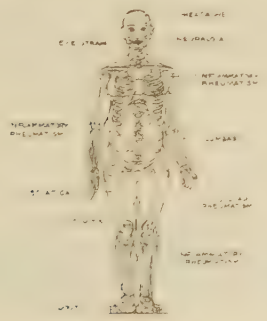
155,323. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE FAULTLESS RUBBER COMPANY, Ashland, Ohio. Filed Feb. 6, 1922. Serial No. 158,922.

Faultless

Particular description of goods.—The Following Articles, All Made Essentially of Rubber: Air Pillows, Baby Comforters, Ice-Bags, Sponge Bags, Breast Pumps, Bulbs, Ice Caps, Water Caps, Carrel Tubing, Catheters, Attachments for Water Bottles and Fountain Syringes, Fountain Syringes, Water Bottles, Combination Fountain Syringes and Water Bottles, Finger Cots, Crutch Tips, Cushions, Drainage-Gauze Covers, Medicine Droppers, Surgeons' Gloves, Face Bottles, Nursers, Hard-Rubber Syringe Pipes and Connections, Syringes, Stoppers, Nipples, Nursing Bottles, Pessaries, Surgeons' Sponges and Fountain Syringes, Syringe Fixtures, Rectal Tubes, Colon Tubes, Stomach Tubes, Tubing.
Claims use since 1901.

155,324. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) OSCAR GEO. FEGLEY, Philadelphia, Pa. Filed Sept. 16, 1921. Serial No. 152,992.

NOT-A-PAIN



℞ Bromo-Aspirin

Particular description of goods.—A Medicine for the Treatment of Colds, Grippe, Headache, Neuralgia, Lumbago, Rheumatism, and Pains and Inflammations Generally.
Claims use since about July 1, 1920.

155,325. (CLASS 5. ADHESIVES.) WELCOME E. FITES, San Francisco, Calif. Filed Nov. 22, 1920. Serial No. 139,965.

Quikstiker

Particular description of goods.—Glue Adhesive Paste and Mucilage.
Claims use since about April, 1896.

155,326. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) FLETCHER ALLTONES NEEDLE CO., San Antonio, Tex. Filed Nov. 11, 1920. Serial No. 139,519.

ALL TONES

Consisting of the word "Alltones."
Particular description of goods.—Phonograph Needles.
Claims use since Sept. 29, 1920.

155,327. (CLASS 39. CLOTHING.) FROLASET CORSET COMPANY, Detroit, Mich. Filed Aug. 1, 1921. Serial No. 151,211.

STOUTFORM

Particular description of goods.—Corsets, Brassières, Corset Waists, Girdles, Hose Supporters, Dresses, Hosiery, and Textile-Fabric Underwear.
Claims use since Sept. 1, 1919.

155,328. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GARRETT & COMPANY, INC., Brooklyn, N. Y. Filed Oct. 27, 1921. Serial No. 154,642.

SHERRY-JELL

Particular description of goods.—Flavoring Extracts for Food Purposes.
Claims use since Oct. 5, 1920.

155,329. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) B. F. GLADDING & CO. INC., South Otselic, N. Y. Filed Oct. 28, 1921. Serial No. 154,691.

Particular description of goods.—Braided Irish-Linen Fishing Lines.
Claims use since Sept. 1, 1912.

155,330. (CLASS 39. CLOTHING.) GREATER MANHATTAN KNITTING MILLS, INC., New York, N. Y. Filed Dec. 16, 1920. Serial No. 141,168.

DUBBEL KNIT

Particular description of goods.—Sweaters.
Claims use since Sept. 20, 1920.

155,331. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HARTMAN SPECIALTY COMPANY, Philadelphia, Pa. Filed Sept. 25, 1920. Serial No. 137,616.

Particular description of goods.—A General Medicinal Tonic.
Claims use since 1899.

155,332. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAX HEIDELBERG, Neuilly-Sur-Seine, (Seine,) France. Filed Dec. 22, 1920. Serial No. 141,422.

D'HORTYS

Particular description of goods.—Hygienical Products, Perfumery Goods—Namely, Perfumed Waters, Oils, Face Pastes and Powders, Scent Bags, Perfume Cushions—and Paints for the Face.
Claims use since Feb. 1, 1917.

155,333. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) WILLIAM HERTZBERG, New York, N. Y. Filed Nov. 23, 1920. Serial No. 140,036.

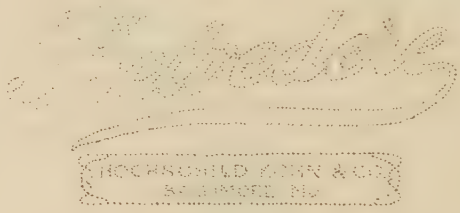
WIRE-GRIP

Particular description of goods.—Brushes—Namely, Hat, Clothes, Cloak, Beauty, Hand, Hair, Shampoo, Massage, Complexion, Bath, Shower-Bath, Dental Plate, Manicure, Crumb, Silverware, Dish-Washing, Kitchen, Glass, Bottle, Sink, Pastry, Scouring, Ice-Chest, Pipe, Percolator, Shoe, Stove, Cuspidor, Crevice, Upholstery, Wall, Bathtub, Bowl, Floor, Window, Dustpan, Dusting, Radiator, Phonograph-Record, Screen, Automobile, Wire-Wheel, Wooden-Wheel, Engine, Double-Ender, Spark-Plug, and Fountain Brushes—Mops, Pot Cleaners, Brooms, Dusters, and Tube Cleaners.
Claims use since Jan. 1, 1920.

155,334. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HERMA L. HICKS, Rocky Mount, N. C. Filed Nov. 15, 1921. Serial No. 155,405.

Particular description of goods.—A Medicinal Compound Used in the Treatment of Neuralgia, Sciatica, Pneumonia, Typhoid Fever, La Grippe, and Influenza.
Claims use since July 1, 1919.

155,335. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) HOCHSCHILD, KOHN & COMPANY, INC., Baltimore, Md. Filed Mar. 9, 1921. Serial No. 144,525.



Particular description of goods. Talking Machines.
Claims use since Nov. 15, 1920.

155,336. (CLASS 11. INKS AND INKING MATERIALS.) KEE LOX MANUFACTURING COMPANY, Rochester, N. Y. Filed Sept. 24, 1921. Serial No. 153,303.

MIGHTY MANIFOLDER

Particular description of goods.—Carbon Paper.
Claims use since about Jan. 1, 1917.

155,337. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LUNDBORG INC., New York, N. Y. Filed Dec. 23, 1921. Serial No. 157,070.

CLUNY

Particular description of goods.—Perfumes, Toilet Water, Toilet Creams, Dental Creams, Talcum Powder, Sachet and Dental Powder.
Claims use since Mar. 15, 1916.

155,338. (CLASS 39. CLOTHING.) MADISON MILLS, INC., New York, N. Y. Filed Feb. 18, 1921. Serial No. 143,769.

BETTER *Madison* MADE

Particular description of goods.—Dress, Negligée, and Work Shirts, for Textile Underwear One and Two Piece Garments for Men, Women, and Children.
Claims use since Jan. 1, 1919.

155,339. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE MAT COMPANY, Muskegon, Mich. Filed July 13, 1921. Serial No. 150,321.

Never-Slip

Particular description of goods.—Cocoa-Fiber Automobile Running-Board Mats.
Claims use since Jan. 1, 1918.

155,340. (CLASS 12. CONSTRUCTION MATERIALS.) MERCHANT & EVANS COMPANY, Philadelphia, Pa. Filed Feb. 4, 1922. Serial No. 158,880.

ALMETL

Particular description of goods.—Fire Doors and Shutters.
Claims use since 1914.

155,341. (CLASS 28. JEWELRY AND PRECIOUS METAL WARE.) THE MIDDLETOWN SILVER COMPANY, Middletown, Conn. Filed Jan. 14, 1922. Serial No. 157,935.

MIDDLETOWN SILVERWARE

Particular description of goods.—Silver-Plated Hollow Ware and Silver-Plated Tableware.
Claims use since on or about Dec. 15, 1920.

155,342. (CLASS 31. FILTERS AND REFRIGERATORS.) THE MILLER PASTEURIZING MACHINE COMPANY, now by change of name The H. H. Miller Industries Company, Canton, Ohio. Filed July 16, 1920. Serial No. 135,055.

TYSON

Particular description of goods.—Ice-Cream Freezers.
Claims use since in or about the year 1905.

155,343. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) LOUIS A. MUNGER, Long Island City, N. Y. Filed Dec. 17, 1921. Serial No. 156,850.

Particular description of goods.—Spark Plugs and Spark-Plug Corés.
Claims use since Sept. 1, 1920.

155,344. (CLASS 39. CLOTHING.) ADOLPH NEUVILLE, St. Louis, Mo. Filed Feb. 26, 1921. Serial No. 144,099.

Neuville

Particular description of goods.—Ladies', Misses', Men's, and Boys' Shirts, Shirt Waists, and Waists.
Claims use since Feb. 22, 1921.

155,345. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) NOVELTY BRAID & TRIMMING CO., New York, N. Y. Filed Nov. 11, 1920. Serial No. 139,546.

Particular description of goods.—Braid.
Claims use since July, 1920.

155,346. (CLASS 27. HOROLOGICAL INSTRUMENTS.) I. OLLENDORFF CO. INC., New York, N. Y. Filed Aug. 25, 1921. Serial No. 152,181.

Artistic

Particular description of goods.—Watches, Watchcases, Watch Movements, and Clocks.
Claims use since July 13, 1921.

155,347. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANTHONY OVERTON, Chicago, Ill. Filed Dec. 3, 1921. Serial No. 156,236.

CORNOUT

Particular description of goods.—A Preparation for Corns, Bunions, and Calluses.
Claims use since Apr. 12, 1919.

155,348. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAMES PESICCHIL, Denver, Colo. Filed June 18, 1921. Serial No. 149,364.

Safe-T-Tube

Particular description of goods.—Prophylactic Preparations.
Claims use since Aug. 14, 1920.

155,349. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS. PITMAN-MOORE COMPANY, Indianapolis, Ind. Filed Nov. 30, 1921. Serial No. 156,108.

PITMAN-MOORE
Anti-Hog-Cholera
Serum

Particular description of goods.—Anti-Hog-Cholera Serum.
Claims use since early part of 1914.

155,350. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE PURE OIL COMPANY, Columbus, Ohio. Filed July 15, 1920. Serial No. 135,018.

TEXTOL

Particular description of goods.—Textile Oils Employed in the Manufacture of Fabrics.
Claims use since July 1, 1920.

155,351. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HERMAN REUTER, Milwaukee, Wis. Filed Mar. 27, 1920. Serial No. 130,293.

Particular description of goods.—Make-Up Paste for Undertakers.
Claims use since Apr. 1, 1918.

155,352. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ROBESON PROCESS COMPANY, New York, N. Y. Filed Nov. 30, 1920. Serial No. 140,473.

Particular description of goods.—Liquid Composition of Matter Employed as a Treating and Tanning Agent.
Claims use since Oct. 27, 1914.

155,353. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THOMAS W. RYAN, Concord Junction, Mass. Filed Jan. 14, 1922. Serial No. 157,958.

RYAN

Particular description of goods.—Ball Cocks.
Claims use since Mar. 11, 1911.

155,354. (CLASS 39. CLOTHING.) THEOPHILUS C. SCHAFFNER, Chicago, Ill. Filed Sept. 12, 1921. Serial No. 152,866.

"INSTANT FITTING"

Particular description of goods.—Men's Outer Garments—Namely, Coats, Vests, and Trousers.
Claims use since about Sept. 5, 1917.

155,355. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SEVILLE LABORATORIES, Chicago, Ill. Filed Apr. 16, 1921. Serial No. 146,277.

SEVILLE

Particular description of goods.—Hair Tonic.
Claims use since June 6, 1920.

155,356. (CLASS 39. CLOTHING.) SMITH-MCCORD-TOWNSEND DRY GOODS CO., Kansas City, Mo. Filed Sept. 23, 1921. Serial No. 153,263.

Knit Well

Particular description of goods.—Sweaters, Bathing Suits, Knitted Caps, Infants' Sacks, Bootees, Knitted Scarfs, Ladies', Children's, and Men's Knitted Underwear.
Claims use since Mar. 2, 1921.

155,357. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) R. J. STRASENBURGH COMPANY, Rochester, N. Y. Filed Dec. 5, 1921. Serial No. 156,316.

PULMOTONE

Particular description of goods.—A Preparation for the Treatment of Coughs and Bronchial Disorders.
Claims use since Jan. 6, 1915.

155,358. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) TOWER MANUFACTURING CO., INC., New York, N. Y. Filed Sept. 24, 1921. Serial No. 153,317.

INDOPHENAL

Particular description of goods.—Dyes.
Claims use since Mar. 5, 1921.

155,359. (CLASS 45. BEVERAGES, NONALCOHOLIC.) C. DUNCAN VREELAND, Lake Charles, La. Filed May 5, 1921. Serial No. 147,265.

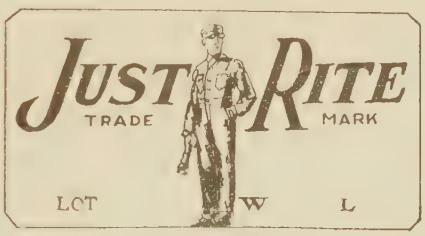
Particular description of goods.—A Nonalcoholic, Noncereal, Maltless Beverage Sold as a Soft Drink.
Claims use since Jan. 28, 1921.

155,360. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RICHARD E. WALSH, Fall River, Mass. Filed Dec. 7, 1921. Serial No. 156,430.

QUICK-LAX

Particular description of goods.—A Laxative in Candy Form.
Claims use since 1910.

155,361. (CLASS 39. CLOTHING.) THE WINER MFG. CO., Hammond, Ind. Filed Dec. 15, 1920. Serial No. 141,147.



Particular description of goods.—Overalls, Jackets, and Work Shirts.
Claims use since Jan. 1, 1916.

INTERNATIONAL TRADE-MARK REGISTRATIONS

MAY 23, 1922.

The following International Registration has been received from the Bureau at Habana and has been placed upon the Register in accordance with the provisions of section 1 (a) of the act of March 19, 1920.

No. 155,362. International Registration No. 635 of March 1, 1922. Registered in Haiti on December 2, 1921, No. 289. Proprietor: THE BAYER COMPANY, INC. Address: 117 Hudson Street, New York, N. Y.

ASPIRINA

Merchandise to which the mark is affixed.—Pharmaceutical Products.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE KELLER.

Decided November 24, 1920.

PATENTS—INVENTIONS—AUXILIARY WINDSHIELD.

Where the variety of constructions in automobile windshields would not permit the auxiliary shield of appellant's patent to be applied generally on account of the varying height at which the clamp could be applied, *Held* that it would not be invention broadly to make the parts between the clamp and the auxiliary shield adjustable.

APPEAL from Examiners-in-Chief.

WINDSHIELDS.

Mr. James T. Barkelew and *Messrs. Myers, Cushman & Rea* for applicant.

MANN, *Assistant Commissioner:*

This is an appeal from a decision of the Examiners-in-Chief affirming the action of the Primary Examiner finally rejecting claim 9 and holding suggested claims 12 and 13 unpatentable.

Claim 9 reads as follows:

9. In a windshield, a transparent shield member, supporting means for the shield member embodying a bar spaced from and extending across the face of the shield member, and means for adjustably supporting the bar, in which means the bar is both rotatively and longitudinally adjustable.

This application is directed to improvements on the windshield shown in the appellant's prior patent, No. 1,284,357, now reissued No. 14,919.

The prior patent shows an auxiliary windshield consisting of a piece of glass having secured thereto a bar or rod which extends parallel to the face of the glass and is spaced slightly therefrom, the bar allowing the shield to be swung outwardly and inwardly under the control of a lock 33, and a supporting bracket or clamp supporting the bar and adapted to be secured to the frame of the ordinary windshield. In this structure the position of the auxiliary shield, so far as height is concerned, was taken care of in locating the clamp or bracket on the side of the main windshield. Appellant represents, however, that the windshields of various automobiles differ so widely in construction that he found it impracticable to use this sort of mounting for his auxiliary shield because the point at which the fastening could be secured to the side of the main windshield was at very different heights in the case of different machines. He therefore devised the structure set forth in the present application in which the up-and-down or longitudinal adjustment of the auxiliary shield is between the support bracket and the hinge bar or rod. The appealed claim is distinguished from the prior patent merely by the words "and longitudinally adjustable" in the last line. In other words, this claim is for appellant's auxiliary shield in combination with any means which, while allowing the swinging movement of the auxiliary shield, will also permit up-and-down movement relative to the means for securing the device to the main windshield. It is believed that any mechanic, or even the average layman, in finding, as appellant did, that the variety of construction in windshields would not permit the device of his patent to be applied generally on account of the varying height at which the clamp could be applied to the windshield would have immediately recognized that the up-and-down adjustment would necessarily have to be placed between the clamp and the auxiliary shield. In other words, it is believed that the appealed claim recites nothing unobvious over the prior art.

The decision of the Examiners-in-Chief is affirmed.

The suggested claims 12 and 13 are broader than the appealed claim and are regarded as unpatentable for the same reason.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

IN RE KELLER.

No. 1467. Decided February 6, 1922.

PATENTS—REJECTION OF CLAIMS AS OBVIOUS CHANGES OF CONSTRUCTION UNDER PREVIOUS PATENT AFFIRMED.

Rejection by the Patent Office of two claims for an auxiliary automobile windshield to be adjusted to the side frame of an ordinary windshield, consisting of an improvement over a similar windshield shown in a previous patent to applicant, on the ground that the claims represented obvious changes in the construction shown in the patent, *Held* correct.

Mr. A. B. Cushman and *Mr. John J. Darby* for Keller.

Mr. T. A. Hostetler for the Commissioner of Patents.

ROBB, *J.:*

This appeal is from a Patent Office decision refusing two claims for an auxiliary automobile wind-

shield adapted to be adjusted to the side frame of an ordinary windshield, and constituting in some respects an improvement over a similar windshield shown in a patent issued to applicant. The Patent Office rejected these claims as representing obvious changes in the construction shown in the patent.

For the reasons stated in detail by the tribunals of the Patent Office, which we need not restate here, the decision is affirmed.

Affirmed.

In this case Mr. Justice HOEHLING of the Supreme Court of the District of Columbia sat in the place of Mr. Chief Justice SMYTH.

ADJUDICATED PATENTS.

(U. S. D. C. N. Y.) The Cordley patent, No. 1,054,677, for improvements in coolers for liquids, *Held* invalid. *Cordley* v. *Richardson Corporation*, 278 Fed. Rep., 683.

(U. S. D. C. Del.) The Fleming patent, No. 803,684, claim 1, for an audion, *Held* valid and infringed, but claim 37 *Held* not infringed. *Radio Corporation of America* v. *Radio Audion Co.*, 278 Fed. Rep., 628.

(U. S. D. C. Del.) The Fleming patent, No. 1,079,238, for bottle cap, *Held* valid and infringed. *American Metal Cap Co.* v. *Anchor Cap & Closure Corporation*, 278 Fed. Rep., 670.

(U. S. C. C. A. Pa.) The Johnston patent, No. 1,061,915, for a spark plug, *Held* not to involve invention. *Helfi Co.* v. *Silvex Co.*, 278 Fed. Rep., 613.

(U. S. D. C. N. Y.) The Kries patent, No. 1,224,880, for electric switch and fuse box, *Held* valid and infringed. *Westinghouse Electric & Mfg. Co.* v. *Metropolitan Electric Mfg. Co.*, 278 Fed. Rep., 666.

PATENT SUITS.

[Notices under section 4921, Revised Statutes, as amended February 18, 1922.]

646,846, J. A. Webster, Pencil sharpener, suit filed May 25, 1921, U. S. C. C. A., 1st C. (writ of error to D. C. Mass.), Doc. 1511, *Automatic Pencil Sharpener Co.* v. *Boston Pencil Pointer Co.* Judgment of D. C. affirmed with costs to defendant in error.

841,387, L. de Forest, Device for amplifying feeble electrical currents; 879,532, same, Space telegraphy, suit filed February 11, 1922, U. S. D. C., Del., Doc. 461, *Am. Tel. & Tel. Co.* v. *Radio Audion Co., & de Forest Radio Tel. & Tel. Co.* Decree for preliminary injunction issued April 28, 1922.

879,532. (See 841,387.)

929,268, H. Allen, Car-door gear, suit filed April 7, 1922, U. S. D. C., N. D. Ill. (E. Div.), Doc. 2657, *Pressed Steel Car Co.* v. *Enterprise Ry. Equipment Co.*

934,603, J. F. Gedge, Sifting and mixing machines, suit filed May 2, 1922, U. S. D. C., M. D. Pa., Doc. 326, *The Gedge Gray Co.* v. *Sprout, Waldron & Co.*

947,229, 971,838, W. M. Fulton, Process of making tubular metal walls, suit filed May 4, 1922, U. S. D. C., N. D. Ohio (E. Div.), Doc. 726, *The Fulton Co.* v. *The Bishop & Babcock Co.*

969,322, C. A. Anderson, Cable hitch for elevators, suit filed May 5, 1919, U. S. D. C., N. D. Ill. (E. Div.), Doc. E. 1220, *Reliance Elevator Co.* v. *Otis Elevator Co.* Order on stipulation filed, cause dismissed at plaintiff's costs, March 29, 1922.

971,838. (See 947,229.)

978,030, 1,152,642, 1,192,786, 1,246,818, A. A. Kent, Electric contact devices; 1,192,788, same, Electrical igniting mechanisms for internal-combustion engine, suit filed April 6, 1922, U. S. D. C., N. D. Ill. (E. Div.), Doc. 2655, *Atwater Kent Mfg. Co.* v. *Browne & Caine, Inc.;* same, suit filed April 10, 1922, Doc. 2659, *Atwater Kent Mfg. Co.* v. *J. Weidenhoff.*

983,994. (See 984,032.)

984,032, J. B. Seager, Carbureters; 983,994, N. T. Harrington, Carbureters, suit filed Apr. 5, 1922, U. S. D. C., N. D. Ill. (E. Div.), Doc. 2653, *J. B. Seager, C. S. Thomas, & C. B. Camp* v. *Bryne, Kingston & Co.*

1,019,683, Re. 13,991, R. Meyer, Automatic plate valve, suit filed April 25, 1922, U. S. D. C., W. D. N. Y., Doc. 379 C, *Worthington Pump & Machinery Corp.* v. *Clark Brothers Co.*

1,065,691, F. W. Kremer, Leather compound, suit filed April 14, 1922, U. S. D. C., N. D. Ill. (E. Div.), Doc. 2680, *United Motors Co.* v. *Mikesell Brothers Co.*

1,086,150, R. C. Frampton, Burners, suit filed April 21, 1922, U. S. D. C., Del., Doc. 477, *Pittsburgh Water Heater Co.* v. *Esda Mfg. Co.*

1,128,144. (See Re. 12,725.)

1,128,145. (See Re. 12,725.)

1,128,252. (See Re. 12,725.)

1,152,642. (See 978,030.)

1,157,285. S. Bachmann, Boxes, suit filed April 27, 1922, U. S. D. C., N. D. Ill. (E. Div.), Doc. 2696, *S. Bachmann* v. *Eddy Paper Co.*

1,175,611, G. S. Cox, Haircloth fabrics and process of making same, suit filed U. S. D. C., E. D. Pa., Doc. 2507, *G. S. Cox* v. *H. J. Schwehm.*

1,192,786. (See 978,030.)

1,192,788. (See 978,030.)

1,211,915. (See 1,222,358.)

1,222,358, 1,211,915, 1,241,090, H. E. Campbell, Metal window frames and sashes, suit filed April 13, 1922, U. S. D. C., N. D. Ill. (E. Div.), Doc. 2661, *Campbell Metal Window Corp.* v. *Voightmann & Co.*

1,241,090. (See 1,222,358.)

1,246,818. (See 978,030.)

1,303,973, H. Sengebusch, Electric safety devices, suit filed April 21, 1922, U. S. D. C., N. D. Ill. (E. Div.), Doc. 2690, *L. J. Wahl* v. *A. C. Reid.*

1,307,733, A. V. Gullborg, Lubricating apparatus; 1,307,734, same, Lubricating means, Re. 14,667, F.

D. Winkley, Lubricating systems, suit filed April 21, 1922, U. S. D. C., N. D. Ill. (E. Div.), Doc. 2693, *The Bassick Mfg. Co.* v. *Froehling Mfg. Co.*

1,307,734. (See 1,307,733.)

1,381,852, C. H. Tomlinson, Automatic car and electric coupler and reversing switch, suit filed April 17, 1922, U. S. D. C., N. D. Ill. (E. Div.), Doc. 2682, *The Tomlinson Coupler Co.* v. *Van Dorn Coupler Co.*

1,381,852, C. H. Tomlinson, Automatic car and electric coupler and reversing switch; 1,402,120, same, Car, air and electric coupler, suit filed April 21, 1922, U. S. D. C., N. D. Ill. (E. Div.), Doc. 2691, *The Tomlinson Coupler Company* v. *The Chicago Ry. Co. & The Chicago City Ry. Transit Co. Etc.*

1,388,010, E. Watson, Display racks, suit filed April 1, 1922, U. S. D. C., N. D. Ill. (E. Div.), Doc. 2647, *E. Watson* v. *The Canterbury Co.*

1,391,256, A. A. Kent, Induction coil structure; 1,407,284, same, Ignition control apparatus; Re. 15,128, Contact devices; Design 42,666, same, Caps for contact makers, suit filed April 6, 1922, U. S. D. C., N. D. Ill. (E. Div.), Doc. 2655, *Atwater Kent Mfg. Co.* v. *Browne & Caine, Inc.*

1,402,120. (See 1,381,852.)

1,407,284. (See 1,391,256.)

1,407,284, A. A. Kent, Ignition control apparatus; Re. 15,128, same, Contact devices; Design 42,666, same, Caps for contact makers; Design 53,852, same, Spring contact arms, suit filed April 10, 1922, U. S. D. C., N. D. Ill. (E. Div.), Doc. 2659, *Atwater Kent Mfg. Co.* v. *J. Wiedenhoff.*

Re. 12,725, R. G. Inwood & P. C. Lavenberg, Boxes, 1,128,144, same, Combined carriage and former for wire-bound-box materials; 1,128,145, same, Means for making box blanks; 1,128,252, same, Methods of making boxes, suit filed April 24, 1922, U. S. D. C., N. D. Ill. (E. Div.), Doc. 2689, *Wirebounds Patents Co. & 4-One Box Machine Makers* v. *H. R. Gibbons Box Co.*

Re. 13,991. (See 1,019,683.)

Re. 14,667. (See 1,307,733.)

Re. 15,128. (See 1,391,256; 1,407,284.)

Design 42,666. (See 1,391,256; 1,407,284.)

Design 53,852. (See 1,407,284.)

Design 53,852, A. A. Kent, Spring contact arms; 56,748, same, Ignition distributor, suit filed April 6, 1922, U. S. D. C., N. D. Ill. (E. Div.), Doc. 2655, *Atwater Kent Mfg. Co.* v. *Browne & Caine, Inc.*

Design 56,748. (See Design 53,852.)

T. M. reg. 79,446, 79,520, Pratt & Lambert, Inc., for varnish, suit filed April 4, 1922, U. S. D. C., N. D. Ill. (E. Div.), Doc. 2649, *Pratt & Lambert* v. *Durable Varnish Co.*

T. M. reg. 79,520. (See T. M. reg. 79,446.)

T. M. reg. 124,257, Mason, Au & Magenheimer Confectionery Mfg. Co., for Chocolates, suit filed April 26, 1922, U. S. D. C., N. D. Ill. (E. Div.), Doc. 2695, *Mason Au & Magenheimer Confectionery Mfg. Co.* v. *Farley Candy Co.*

Revival of Patent Agreement with Germany.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 15, 1922.

A communication from the Department of State, dated May 12, 1922, states that the Patent Agreement concluded between the United States and the German Empire on February 23, 1909 (145 O. G., 515), came into force again on May 8, 1922, on appropriate notice of revival communicated under that date to the German Government.

THOMAS E. ROBERTSON,
Commissioner.

PATENT CONVENTION BETWEEN THE UNITED STATES AND GERMANY.

[Reprinted from 145 O. G., 515.]

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA.

A PROCLAMATION.

Whereas a Patent Agreement between the United States of America and the German Empire was concluded and signed by their respective plenipotentiaries at Washington on the twenty-third day of February, one thousand nine hundred and nine, the original of which Agreement being in the English and German languages is word for word as follows:

The President of the United States of America and His Majesty the German Emperor, King of Prussia, in the name of the German Empire, led by the wish to effect a full and more operative reciprocal protection of patents, designs, working patterns, and models in the two countries, have decided to conclude an agreement for that purpose and have appointed as their plenipotentiaries: the President of the United States of America, Mr. Robert Bacon, Secretary of State of the United States; and His Majesty the German Emperor, King of Prussia, His Excellency Count von Bernstorff, his Ambassador Extraordinary and Plenipotentiary to the United States; who, after having communicated each to the other their respective full powers, found to be in good and due form, have agreed to the following articles:

ARTICLE I.

The provisions of the laws applicable, now existing or hereafter to be enacted of either of the contracting parties, under which the non-working of the patent, working pattern (*Gebrauchsmuster*), design or model carries the invalidation or some other restriction of the right, shall only be applied to the patents, working patterns (*Gebrauchsmuster*), designs or models enjoyed by the citizens of the other contracting party within the limits of the restrictions imposed by the said party upon its own citizens. The working of a patent, working pattern (*Gebrauchsmuster*), designs or model in the territory of one of the contracting parties shall be considered as equivalent to its working in the territory of the other party.

ARTICLE II.

This Agreement shall take effect from the date of its promulgation and remain in force until the expiration of 12 months following the notice of termination given by one of the contracting parties.

ARTICLE III.

The present Agreement shall be ratified and the ratifications shall be exchanged at Washington as soon as possible.

In witness whereof the respective plenipotentiaries have executed the present Agreement and affixed their seals thereunto.

Done in duplicate in the English and German languages at Washington this 23rd day of February, 1909.

ROBERT BACON. [SEAL.]
J. BERNSTORFF. [SEAL.]

And whereas the said Agreement has been duly ratified on both parts, and the ratifications of the two governments were exchanged in the city of Washington, on the fourteenth day of July, one thousand nine hundred and nine; now, therefore, be it known that I, William Howard Taft, President of the United States of America, have caused the said Agreement to be made public, to the end that the same and every article and clause thereof may be observed and fulfilled with good faith by the United States and the citizens thereof.

In testimony whereof, I have hereunto set my hand and caused the seal of the United States to be affixed.

Done at the city of Washington this first day of August in the year of our Lord one thousand nine hundred and nine, and of the Independence of the United States of America the one hundred and thirty-fourth.

[SEAL.] WM. H. TAFT.

By the President:
ALVEY A. ADEE,
Acting Secretary of State.

Amendment to the Rules of Practice.

(ORDER No. 2,743.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 3, 1922.

Acting under the provisions of section 483 of the Revised Statutes and with the approval of the Secretary of the Interior, the following rules of the Rules of Practice of the United States Patent Office have been amended as follows:

Rule 17, paragraph (*a*):

(*a*) Any attorney at law who is in good standing in any court of record in the United States or any of the States or Territories thereof and who shall furnish a certificate of the clerk of such United States, State, or Territorial court, duly authenticated under the seal of the court, that he is an attorney in good standing, *and who shall file proof that he is possessed of the legal and technical qualifications enumerated in paragraph (b.)*

Rule 22, paragraphs (*c*) and (*d*):

(*c*) *The Commissioner of Patents may, after notice and opportunity for a hearing, suspend or exclude, either generally or in any particular case, from further practice before his office any person, agent, or attorney shown to be incompetent or disreputable, or guilty of gross misconduct, or who refuses to comply with the rules and regulations, or who shall, with intent to defraud in any manner, deceive, mislead, or threaten any applicant or prospective applicant, or other person having immediate or prospective business before the office, by word, circular, letter, or by advertising, or who shall guarantee the successful prosecution of any application for patent or the procurement of any patent, or by word, circular, letter, or advertisement shall make any false promise or misleading representation, or who uses the name of any member of either House of Congress or of any officer of the Government in advertising his business. (Act approved April 27, 1916.) The reasons for any such suspension or exclusion shall be duly recorded. And the action of the Commissioner may be reviewed upon the petition of the person so refused recognition or so suspended or excluded by the Supreme Court of the District of Columbia under such conditions and upon such proceedings as the said court may by its rules determine.*

Rule 30, line 5, by changing $15 to *$20.*

Rule 185:

185. An assignment, grant, or conveyance of a patent will be void as against any subsequent purchaser or mortgagee for a valuable consideration without notice unless recorded in the Patent Office within three months from the date thereof *or prior to such subsequent purchase or mortgage.*

If any assignment, grant, or conveyance of any patent shall be acknowledged before any notary public of the several States or Territories or the District of Columbia, or any commissioner of *any court of the United States for any District or Territory,* or before any secretary of legation or consular officer authorized to administer oaths or perform notarial acts under section 1750 of the Revised Statutes, the certificate of such acknowledgment, under the hand and official seal of such notary or other officer, shall be prima facie evidence of the execution of such assignment, *grant* or conveyance.

Rule 188:

188. In every case where it is desired that the patent issue to an assignee, the assignment must be recorded in the Patent Office at a date not later than the day on which the final fee is paid. *In the case of an application for a design patent the assignment must be recorded before the case is allowed.* (See Rule 26.) The date of the record is the date of the receipt of the assignment at the office *in proper form and accompanied by the full legal fee for recording.*

Rule 191, page 57:

191. The following is the schedule of fees and of prices of publications of the Patent Office:

On filing each original application for a patent, except in design cases	*$20.00*
On filing each renewal application for a patent, except in design cases	*20.00*
On issuing each original patent, except in design cases	20.00
In design cases:	
For 3 years and 6 months	10.00
For 7 years	15.00
For 14 years	30.00
On every application for the reissue of a patent	30.00
On filing each disclaimer	10.00
On an appeal for the first time from the primary examiner to the examiners in chief	10.00
On every appeal from the examiners in chief to the Commissioner	20.00
For certified copies of patents if in print:	
For specification and drawing, per copy	.10
For the certificate	.25
For the grant	.50
For certifying to a duplicate of a model	.50
For manuscript copies of records, for every 100 words or fraction thereof	.10
If certified, for the certificate additional	.25
For photostat copies of records.	
Size 10 by 15 inches, per copy	*.25*
Size 8 by 12½ inches, per copy	*.15*
If certified, for the certificate additional	*.25*
For uncertified copies of the specifications and accompanying drawings of patents, if in print, each	.10
For the drawings, if in print	.10
For copies of drawings not in print, the reasonable cost of making them.	
For photo prints of drawings, for each sheet of drawings:	
Size 10 by 15 inches, per copy	.25
Size 8 by 12½ inches, per copy	.15
For 20-coupon orders, each coupon good for one copy of a printed specification and drawing, and receivable in payment for photographic prints	2.00
For 100 coupons in stub book	10.00
For recording every assignment, agreement, power of attorney, or other paper, of 300 words or under	1.00
Of over 300 and under 1,000 words	2.00
For each additional 1,000 words or fraction thereof	1.00
For each additional patent or application included or involved in one writing, where more than one is so included or involved, additional	*.25*
For abstracts of title to each patent or invention:	
For the search, one hour or less, and certificate	2.00
Each additional hour or fraction thereof	1.00
For each brief from the digest of assignments, of 200 words or less	.20
Each additional 100 words or fraction thereof	.10
For searching titles or records, one hour or less	1.00
Each additional hour or fraction thereof	1.00
For assistance to attorneys in the examination of publications in the Scientific Library, one hour or less	1.50
Each additional hour or fraction thereof	1.50
For copies of matter in any foreign language, for every 100 words or a fraction thereof	.10
For translation, for every 100 words or fraction thereof	.60

Rule 191, pages 58 and 59 remain unchanged.

THOMAS E. ROBERTSON,
Commissioner.

THE

OFFICIAL GAZETTE

OF THE

United States Patent Office.

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Issue of May 30, 1922.

Patents	788—No. 1,417,480 to No.	1,418,267, inclusive.
Designs	17—No. 61,009 to No.	61,025, inclusive.
Trade-Marks	230—No. 155,363 to No.	155,592, inclusive.
Labels	58—No. 24,373 to No.	24,430, inclusive.
Prints	13—No. 6,131 to No.	6,143, inclusive.
Reissues	5—No. 15,365 to No.	15,369, inclusive.
T. M. Renewals	6	
Total	1097	

Reciprocity of the Laws of New Zealand Recognized.

(Order No. 2,747.)

Department of the Interior,
United States Patent Office,
Washington, D. C., May 20, 1922.

Notice is hereby given that the laws of New Zealand are recognized as affording to citizens of the United States privileges substantially reciprocal to the privileges accorded by the Nolan Act of March 3, 1921 (H. R. 15,662), and that consequently all the privileges specified in said act will be extended to its citizens, subject to the limitation that extensions will not be granted to relieve defaults falling under section 2 of the act for a longer period than six years, five months, and six days, upon the filing of a letter or statement by the applicant or his agent that he was prevented from doing the act in the prescribed time by reason of circumstances arising from the state of the World War. If the statement is made by an associate attorney in the United States, it should set forth that it is based upon information furnished by the applicant or his agent in the foreign country or set forth facts within his personal knowledge.

THOMAS E. ROBERTSON,
Commissioner.

Disclaimers.

828,242.—*Robert F. Phillips*, Carrick, Pa. Self-Oiling Car Wheel. Patent dated August 7, 1906. Disclaimer filed May 15, 1922, by the assignee *The Phillips Mine & Mill Supply Company.*

Hereby disclaims from claim 2 any self-oiling car wheel in which the valve spring is inserted through a hole in the inner side wall of the hollow hub opposite the oil inlet;

Thereby limiting claim 2 to a self-oiling car wheel in which the valve spring is inserted otherwise than through a hole in the inner side wall of the hollow hub opposite the oil inlet.

882,583.—*John M. Phillips* and *Robert F. Phillips*, Carrick, Pa. Running Gear for Mine Cars. Patent dated March 17, 1908. Disclaimer filed May 15, 1922, by the assignee *The Phillips Mine & Mill Supply Company.*

Hereby disclaims from claim 2—

"Any running gear for mine cars having a wheel which does not have an axle cap and enlarged bearing-forming bore extending through the hub and terminating at the cap, a bore of diminished diameter extending through the cap only, the shoulder between the two bores forming a thrust bearing, a second thrust bearing at the inner end of the hub, and an oil chamber in the hub terminating short of the outer end of the enlarged bearing-forming bore."

RETURNED TO PUBLISHER

NOTICE.—PATENTS MAY NOT ISSUE IN JULY.

The Patent Office has been informed by the Public Printer that it will be impossible to do work in June preparatory to issuance of patents in July because the appropriation for the current year has been exhausted by work already in hand for getting out the June patents. A deficiency appropriation has been requested from Congress. If relief is not given, it will be impossible to issue any patents or register any trade-marks during the first three weeks of July, and it may be that some patents normally in the last issue of June will have to be deferred. This notice is given in order that attorneys and applicants may examine their cases to determine whether they should take any action in view of this situation.

Condition of Applications Under Examination at Close of Business May 20, 1922.

(Total number of applications waiting action, excluding Trade-Mark division, 66,287; Trade-Mark division, 8,727. Oldest new case, Mar. 24; oldest amended, Mar. 23, 1921. The dates given are 1921 except where * indicates 1922.)

Room No.	Divisions, Examiners, and subjects of inventions.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended.	
314	1. LOEFFLER, F. A., Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Planting; Scattering Unloaders.	Nov. 12	Nov. 21	892
128	2. BALDWIN, M., Bee Culture; Dairy; Medicines; Pneumatics: Preserving; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco; Trees, Plants, and Flowers.	June 11	July 5	1,899
175	3. RICH, WM. J., Electric Heating and Rheostats; Electrochemistry; Heating; Metal Founding; Metallurgical Apparatus; Metallurgy; Metal Treatment; Plastic Metal Working.	Sept. 12	June 16	922
234	4. MERRITT, A. D., Conveyers; Conveyers, Fluid Current; Conveyers, Power Driven; Excavating; Handling—Hand and Hoist-Line Implements; Hoisting; Material or Article Handling; Pushing and Pulling Implements; Railway Mail Delivery; Traversing Hoists.	Aug. 6	*Feb. 10	1,484
167	5. MACNAB, J. F., Bookmaking; Books, Strips, and Leaves; Harvesters; Jewelry; Manifolding; Music; Printed Matter; Tying Cords or Strands.	Aug. 1	Aug. 1	1,080
318	6. LEWERS, A. M., Bleaching and Dyeing; Chemicals; Explosive, Pyrotechnic, and Match Compositions; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Substance Preparation.	Aug. 20	*Jan. 6	1,245
312	7. JARBOE, C. G., Games and Toys; Optics; Photography; Velocipedes	Aug. 24	Nov. 7	2,319
133	8. CLIFT, J. W., Beds; Chairs and Seats; Flexible-Sheet-Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	*Feb. 25	*Apr. 11	758
221	9. TRYON, F. M., Air and Gas Pumps; Hydraulic Motors; Injectors and Ejectors; Motors, Fluid; Motors, Fluid Current; Pumps.	May 12	*Feb. 13	1,045
235	10. MITCHELL, T. H., Land Vehicles; Land Vehicles, Animal Draft Appliances; Land Vehicles—Bodies and Tops; Land Vehicles—Dumping; Land Vehicles, Wheel Substitutes; Motor Vehicles.	Oct. 24	*Mar. 10	1,050
154	11. ARMSTRONG, H. C., Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	*Jan. 3	*Feb. 11	606
322	12. PIERCE, P. P., Machine Elements	Oct. 28	*Jan. 16	1,158
329	13. NIXON, G. A., Bolt, Nail, Nut, Rivet, and Screw Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Turning.	May 11	*Jan. 6	1,889
323	14. BRUMBAUGH, N. J., Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire Working.	Aug. 9	*Feb. 27	924
308	15. REDROW, W. L., Bread, Pastry, and Confection Making; Glass; Laminated Fabrics and Analogous Manufactures; Paper Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	June 15	July 30	2,002
112	16. BACKUS, C. D., Radiant Energy; Telegraphy; Telephony	May 19	June 18	2,151
307	17. RAFTER, G. S., Coating, Label Pasting, and Paper Hanging; Nut and Bolt Locks; Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet-Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	Aug. 9	Dec. 23	1,341
229	18. PORTER, M. E., Liquid Heaters and Vaporizers; Motors, Expansible-Chamber Type; Power Plants; Speed-Responsive Devices; Steam and Vacuum Pumps.	Mar. 24	May 5	2,326
236	19. GLASCOCK, E. S., Automatic Temperature and Humidity Regulation; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels; Thermostats and Humidostats.	May 26	Sept. 3	1,227
179	20. WRIGHT, H., Artificial Body Members; Miscellaneous Hardware; Closure Fasteners; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Nov. 15	Dec. 1	1,721
212	21. THURBER, W. L., Continuous-Strip Feeding; Textiles; Textiles, Braiding, Netting, or Lace Making; Textiles, Cloth Finishing; Textiles, Fiber Preparation; Textiles, Knitting; Textiles, Spinning; Textiles, Twisting or Twining; Textiles, Weaving; Winding and Reeling.	June 20	Sept. 19	922
249	22. COLWELL, J. H., Aeronautics; Firearms; Ordnance; Ammunition and Explosive Devices; Ammunition and Explosive-Charge Making.	Sept. 27	*Jan. 10	594
217	23. GROESBECK, W. D., Acoustics; Coin Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	Apr. 11	Oct. 6	856
144	24. DURAS, C. O., Apparel; Apparel Apparatus; Garment Supporters; Sewing Machines	July 22	*Jan. 5	1,196
315	25. LIGHTFOOT, J. H., Agitating; Butchering; Centrifugal-Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	*Mar. 13	*Mar. 17	425
105	26. HODGES, J. S., Electricity, Generation; Motive Power; Prime-Mover Dynamo Plants	Aug. 24	Nov. 8	998
214	27. ANDERSON, L. S., Abrading; Brush, Broom, and Mop Making; Brushing, Scrubbing, and General Cleaning; Laundry; Washing Apparatus.	Aug. 11	Sept. 12	1,006
225	28. BENSON, A. R., Internal-Combustion Engines	Aug. 26	Aug. 11	1,751
147	29. MORRIS, B. N., Boring and Drilling; Button Making; Chucks or Sockets; Coopering; Tool-Handle Fastenings; Wheelwright Machines; Wood Sawing; Wood Turning; Woodworking; Woodworking Tools.	Aug. 8	*Mar. 13	644
152	30. SULLIVAN, M. R., Illuminating Burners; Illumination; Liquid and Gaseous Fuel Burners; Typewriting Machines.	Nov. 16	*Mar. 17	1,434
172	31. HOLMES, W. N., Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Fuel and Igniting Devices; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	May 25	July 25	2,128
278	32. BANCROFT, J. F., Gas and Liquid Contact Apparatus; Heat Exchange	July 5	*Jan. 16	1,058
70	33. COWLES, W. A., Bridges; Hydraulic and Earth Engineering; Masonry and Concrete Structures; Metallic Building Structures; Roads and Pavements; Roofs.	Oct. 7	Dec. 14	958
304	34. SIMPSON, G. R., Electricity-Transmission to Vehicles; Pneumatic Dispatch; Railways; Railway Rolling Stock; Railway Switches and Signals; Railways, Surface Track; Railway Wheels and Axles; Store Service; Track Sanders; Vehicle Fenders.	*Mar. 1	*Mar. 2	437
52	35. REYNOLDS, E. C., Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals and Indicators; Toilet.	Dec. 21	*Feb. 20	896
204	36. MORTON, G. L., Automatic Weighers; Driers; Geometrical Instruments; Measuring Instruments; Force Measuring.	Dec. 10	Nov. 17	1,808
107	37. TAYLOR, E. C., Electricity, Circuit Makers and Breakers	June 28	June 14	1,966
378	38. IDE, G. R., Animal Husbandry; Earth Boring; Fishing, Trapping, and Vermin Destroying; Mining, Quarrying, and Ice Harvesting; Stationery; Stoneworking, Wells.	Oct. 19	Oct. 15	1,640
220	39. COWLES, A. W., Fluid-Pressure Regulators; Joint Packings; Multiple Valves; Packed Shaft or Rod Joints; Pipe Joints or Couplings; Rod Joints or Couplings; Valved Pipe Joints or Couplings; Valves; Water Distribution.	Apr. 6	May 3	2,240
273	40. OBERLIN, J. J., Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Receptacles; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	May 25	July 30	2,962
125	41. BROWN, J. I., Land Vehicles, Wheels and Axles; Resilient Tires and Wheels	*Jan. 6	Dec. 7	712
114	42. CUTTING, H. O., Electrical Conduits and Housings; Electric Signaling; Electric Lamps	June 27	June 13	1,921
382	43. HOPKINS, F. M., Baths and Closets; Dispensing; Dispensing Beverages; Electricity, Medical and Surgical; Fire Extinguishers; Sewerage; Surgery; Liquid Separation or Purification.	July 9	Aug. 18	1,864
253	44. SHAFFER, C. H., Air Guns, Catapults, and Targets; Boats and Buoys; Filling and Closing Portable Receptacles; Marine Propulsion; Railway Draft Appliances; Refrigeration; Ships.	Sept. 24	*Mar. 24	521
379	45. GILES, A. H., Journal Boxes, Pulleys, and Shafting; Lubrication; Motors; Spring Devices	Aug. 19	*Feb. 7	1,234
332	46. WOLCOTT, C. L., Curtains, Shades, and Screens; Educational Appliances; Fire Escapes; Ladders; Fluid Sprinkling, Spraying, and Diffusing; Paper Files and Binders; Wooden Buildings; Scaffolds.	Sept. 26	Nov. 3	1,332
261	47. BARKER, H., Brakes; Clutches and Power Stop Control; Elevators; Fluid-Pressure Brake and Analogous Systems.	July 20	Nov. 18	1,310
118	48. ROEPKE, O. B., Electricity Conductors; Electricity, General Applications	Mar. 5	Mar. 23	2,665
163	TRADE-MARKS, DESIGNS, LABELS AND PRINTS: T. L. MEAD, JR.			
	Trade-Marks	Sept. 12	Jan. 30	5,796
	Designs	Sept. 20	Dec. 23	2,706
	Labels and Prints	Apr. 27	May 10	225

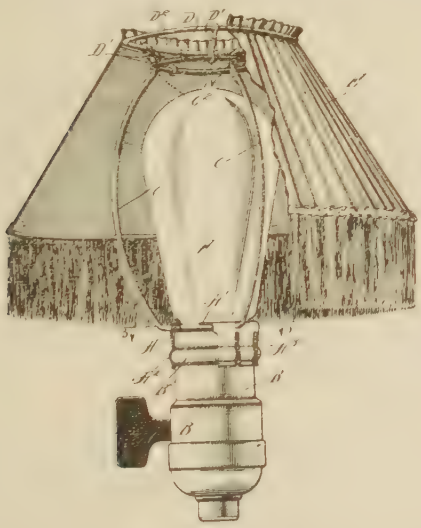
PATENTS

GRANTED MAY 30, 1922.

1,417,480. MANUFACTURE OF RAILWAY DRAFT-GEAR YOKES. HARRY T. ANDERSON, Butler, Pa., assignor to Harry Vissering & Company, Chicago, Ill., a Corporation of Illinois. Filed June 18, 1919. Serial No. 305,034. 5 Claims. (Cl. 29—167.)

1. That improvement in the manufacture of yokes for railway draft gear which consists in forging top and bottom flanges on a plate metal blank, forging on a second blank similar flanges which are adapted to overlap the flanges on the first blank when the blanks are placed side-by-side, forming a draft-gear pocket in the webs between the front and rear ends, and securing the plates together in spaced relation with the flanges thereof in overlapped relation.

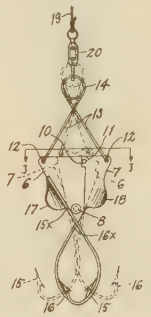
1,417,481. SHADE HOLDER. LAURITZ W. ANDERSEN, Waterbury, Conn. Filed Sept. 14, 1918. Serial No. 254,070. 1 Claim. (Cl. 240—111.)



A device of the kind described comprising a slotted and grooved sheet metal collar having an inwardly projecting flange and a plurality of resilient wire arms extending therefrom at spaced intervals, the free ends of said arms being hooked, the collar being adapted to frictionally fit upon an incandescent lamp socket, the arms being so spaced as to receive an incandescent bulb therebetween and the hooked ends of the arms being capable of engagement with the annular portion of a shade.

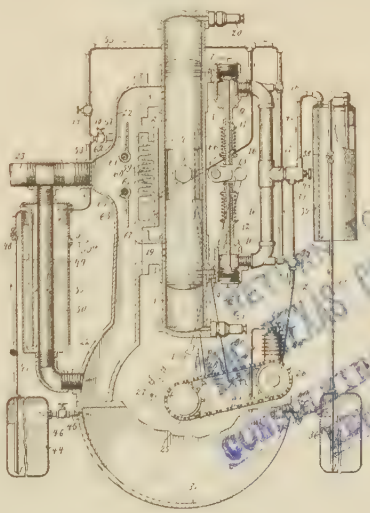
1,417,482. FISHHOOK. JULIUS O. ASPELIN, Skandia Township, Murray County, Minn. Filed Aug. 15, 1921. Serial No. 492,608. 3 Claims. (Cl. 43—36.)

1. In a device of the class described, a coil spring adapted to be secured to the end of a fish line and having its ends formed with crossing arms normally tending to close toward each other, a pair of metal plates pivotally attached at their upper ends to said arms and having their lower parts loosely pivoted together in overlapped position and spaced apart at the pivoted point, a fish hook secured to each plate and arranged to overlap each other in parallel spaced relation when the device is



set, and means at the upper ends of the plates for catching and holding the plates and the spring arms in spread position when the hooks are in overlapped position, said holding means arranged to be disengaged by swinging the hooks laterally toward each other, the pivot joint affording both swinging and tilting movement of the plates.

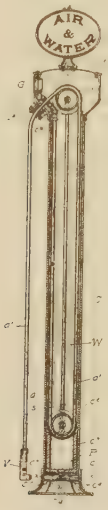
1,417,483. DEVICE FOR CHARGING INTERNAL-COMBUSTION ENGINES. LEONARD ATWOOD, Boston, Mass., assignor to Albert H. Gillard, Englewood, N. J. Filed Sept. 16, 1916. Serial No. 120,457. 11 Claims. (Cl. 123—25.)



THE CHEMICAL FOUNDATION, INC. 60 EAST 42nd STREET NEW YORK

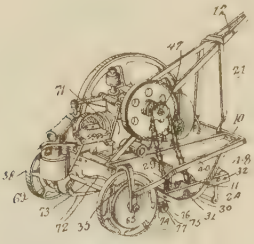
1. A device for charging an internal combustion engine comprising a reservoir adapted for receiving and containing liquid fuel and water means for unitedly heating the liquid fuel and water under pressure, and means for delivering the resultant vapors to the engine.

1,417,484. APPARATUS FOR HOUSING HOSE. LINNAEUS E. BAKER, Fort Wayne, Ind., assignor to Wayne Oil Tank and Pump Company, Fort Wayne, Ind., a Corporation of Indiana. Filed Dec. 20, 1920. Serial No. 432,009. 4 Claims. (Cl. 299—77.)



1. In an apparatus for housing hose, the combination of an elongated upright housing, a sheeve for the hose pivoted near the top of the housing, a weight longitudinally movable within the housing and close enough fitting therein so that the air beneath it will be compressed and may gradually escape, a sheeve for the hose pivoted to said weight, and an opening for the hose in the housing near its top; said apparatus adapted to have the hose secured to the source of fluid supply pass over the sheeves and out to the exterior of the apparatus.

1,417,485. TRACTOR LAWN MOWER. WILLIAM HALL BALDWIN, Middletown, Conn. Filed May 13, 1919. Serial No. 296,826. 10 Claims. (Cl. 56—26.)

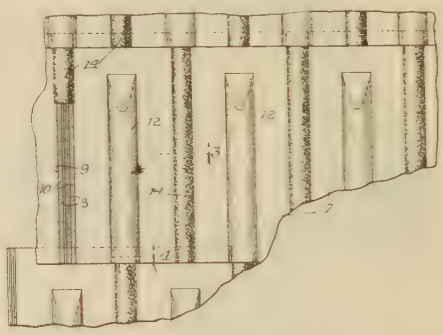


1. A tractor lawn mower device comprising a frame, a motor supported on the upper side of the said frame, a tractor driving roll connected to the said frame, positioned on the under side of the rear portion thereof, and operatively connected to the said motor, the front portion of the said frame being provided with means for being connected to a lawn mower, and the parts being constructed and arranged so that the front part of the said frame will be supported by means of the said connection of the frame with the lawn mower and that the lawn mower will be operatively driven through the medium of such connection.

1,417,486. PROPELLER. JULIUS BARTHA and ARTHUR E. GLASSMANN, New York, N. Y., assignors to Glassmann-Bartha Welding Corp., New York, N. Y. Filed Nov. 15, 1920. Serial No. 424,333. 2 Claims. (Cl. 170—166.)

1. A propeller having a hub, a plurality of primary blades extending therefrom, and a plurality of secondary blades extending from said primary blades and adapted to co-act as pilots for said primary blades all of said elements being merged into each other in screw formation.

1,417,487. ROOF STRUCTURE. LEROY BAUMGARTL, Chicago, Ill., assignor to Federal Cement Tile Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 21, 1921. Serial No. 454,113. 4 Claims. (Cl. 108—10.)

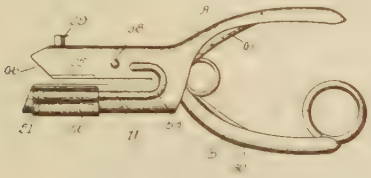


1. In combination, slabs arranged side by side in edgewise opposed relation, said slabs presenting an upwardly opening groove at their opposed edges for receiving material to fill the joint between the slabs, the upper surface of each slab having an upwardly extending rib extending lengthwise thereof and located between said grooves and the main body portion of the slab, the upper surfaces of said slabs also containing channels extending alongside said ribs, and plastic cementitious, filling material extending into said groove and into said channels and forming an exposed filler rendering water-tight the joint between said slabs.

1,417,488. PUNCH. ALBERT BECK, Chicago, Ill., assignor to McGill Ticket Punch Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 24, 1919. Serial No. 333,039. 10 Claims. (Cl. 164—121.)

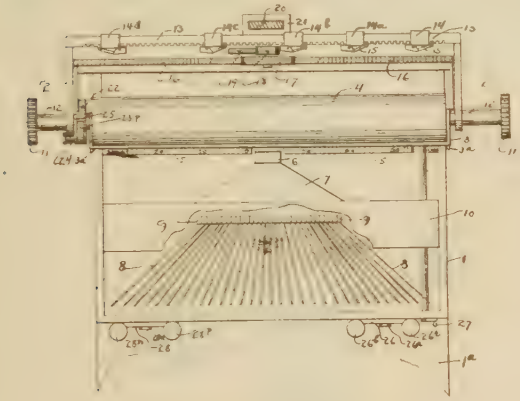
1. In a punch of the class described, the combination of a body member provided with a slot for receiving a ticket or the like, a die secured in the body member on one side of said slot, a die pin reciprocally mounted in said

body member on the other side of said slot, and a lever pivoted in said body member and operatively connected with said die pin whereby said pin may be moved into



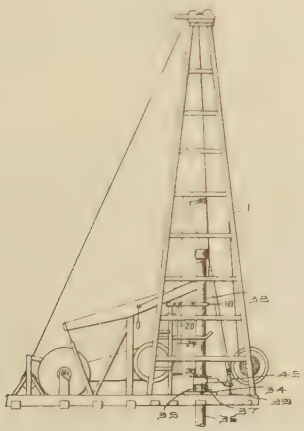
and out of said die, said body member having a sight opening, permitting accurate placing of the ticket in said slot whereby the part to be punched may be placed under the die pin.

1,417,489. TYPEWRITING MACHINE. ALEXANDER BLOCK, New York, N. Y. Filed Nov. 13, 1920. Serial No. 423,948. 93 Claims. (Cl. 197—1.)



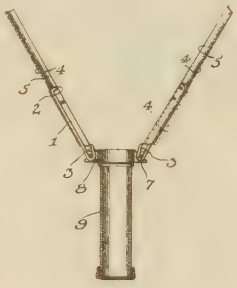
1. In a typewriting machine, a universal type holder, types adapted to be severally received by said type holder, means for delivering said types, one at a time, to said holder, and mechanical means controllable from a keyboard for actuating said universal type holder and forcing said holder to move the type into printing position for performing the printing operation.

1,417,490. PIPE-HANDLING APPARATUS. ARTHUR H. BRANDON, Toledo, Ohio, assignor to Arthur H. Brandon & Company, Toledo, Ohio. Filed Sept. 20, 1920. Serial No. 411,573. 17 Claims. (Cl. 255—35.)



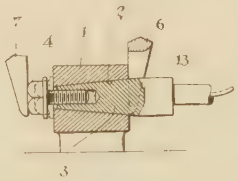
1. Means for sustaining a pipe in a well including open side jaw carrying frame closed for holding the pipe against rotation, and open sides jaw carrying rotatable means rigidly mounted coaxially as to the sustaining means and provided with a pipe grip operable to engage a pipe for rotation as to the held pipe.

1,417,491. FASTENER FOR UMBRELLA STRETCHERS AND RIBS. ANDREW G. BRANDT, Scranton, Pa. Filed Mar. 2, 1921. Serial No. 448,957. 3 Claims. (Cl. 138—29.)



2. In combination with a stretcher of channel cross section, a hook formed of wire having a spring shank part, the end of the shank opposite the hook bent at an angle to said shank and adapted to be fixedly secured between the sides of said channel stretcher so that the spring shank lies in the bottom of the channel, the hook on the other end of said shank adapted to be normally closed by the end of the side walls of the stretcher.

1,417,492. TOOL. JOSEPH MARTIN BRANDT, Bellevue, Iowa. Filed Nov. 24, 1920. Serial No. 426,166. 1 Claim. (Cl. 29—84.)

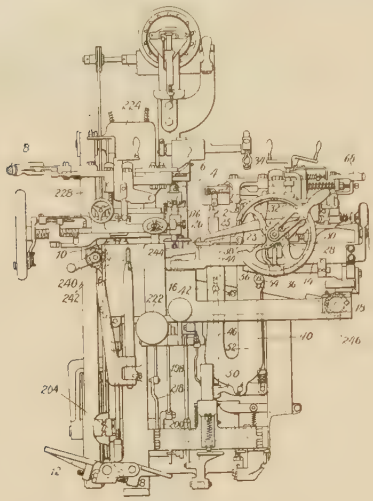


A tool for removing terminal connections from battery posts comprising a pair of jaws having their intermediate portions interiorly screw threaded, a screw threaded through the intermediate portions of said jaws, a second screw threaded through the terminal portion of one of the jaws and engaged with the terminal portion of the other jaw, the forward terminal portions of one of the jaws being straight and adapted for engagement with the screw of the terminal connection and the terminal portion of the other jaw being forked to straddle the terminal connection and engage the battery posts on opposite sides of the terminal connection.

1,417,493. LASTING MACHINE. MATTHIAS BROCK, deceased, late of Boston, Mass., by Edward L. Brock, administrator, Beverly, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 24, 1919. Serial No. 278,914. 57 Claims. (Cl. 12—14.)

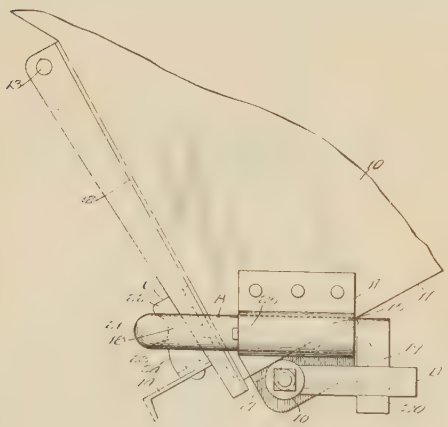
1. In a machine of the class described, the combination with shoe end clamping means, of mechanism for operat-

ing said clamping means to cause it to press upon a shoe comprising a member adjacent to the shoe end having a



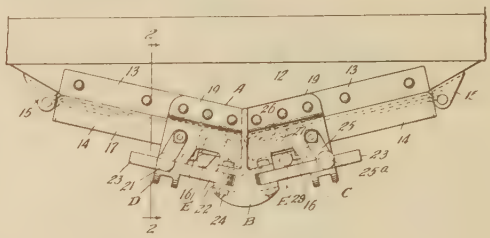
wedge face formed to operate with increasing mechanical advantage as the pressure on the shoe increases.

1,417,494. CAR-DOOR-LOCKING MECHANISM. ARGYLE CAMPBELL, Chicago, Ill., assignor to Enterprise Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 29, 1921. Serial No. 504,236. 8 Claims. (Cl. 105—308.)



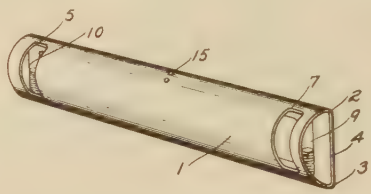
1. In a door locking mechanism for dump cars having a discharge hopper defined by a sloping bottom sheet and side sheets and a hopper door hinged to swing about its upper edge, the combination with a latching element pivotally supported from a side outer sheet to rotate about an axis transverse to the pivotal axis of the door, said element projecting beyond the closed position of the door and provided with an arm extending laterally therefrom, said element having also an operating section; of a shouldered element secured to the outside of the door adjacent its edge nearest said side hopper sheet and behind which shouldered element said arm is adapted to engage to lock the door in closed position when said latching element is rotated; and means for holding said latching element in operative position.

1,417,495. CAR-DOOR-LOCKING MECHANISM. ARGYLE CAMPBELL, Chicago, Ill., assignor to Enterprise Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 27, 1921. Serial No. 525,104. 10 Claims. (Cl. 105—308.)



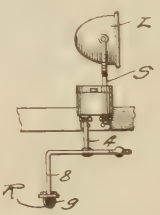
1. In a dump car having a pivoted door, the combination with a bracket secured to a fixed part of the car adjacent an edge of the door when the latter is in closed position; of a bar rigid with the door and projecting from said edge in line with said bracket; a locking lever pivotally supported on said bracket to swing against said bar on the under side of the latter; and means for holding said lever in locked position.

1,417,496. HAND LEVEL. JAMES H. CARMEAN, Kansas City, Mo. Filed Oct. 29, 1920. Serial No. 420,433. 2 Claims. (Cl. 33—209.)



1. A hand level comprising an elongated casing open at its ends, a pair of vertical liquid containing conduits off-set with one another by respect to their mounting in the casing to permit comparison of the liquid levels in the conduits, and connecting conduits for the vertical conduits.

1,417,497. DIRIGIBLE HEADLIGHT. HARRY E. CARY and THOMAS T. MCGUIRE, Oakland, Calif. Filed Jan. 29, 1919. Serial No. 273,813. 1 Claim. (Cl. 240—62.)

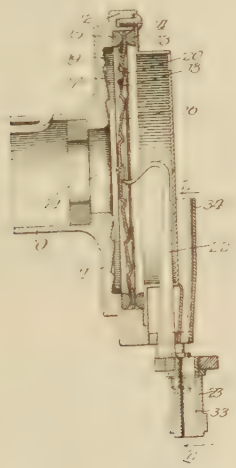


In combination with a frame, brackets and gear housing carried thereby secured to the frame, a steering apparatus, a rotatable shaft in each of the gear housings operable by the steering apparatus, a rotatable lamp standard within each of said housings, a toothed gear and mutilated gear secured on the upper ends of the respective shafts and standards of each housing, a transversely extending rack bar operable therewith and in mesh with said gears, each of said mutilated gears having a flattened side adapted to normally maintain the same out of engagement with the rack bars, whereby the mutilated gears will be caused to rotate as the said rack bar is moved in one direction for independently rotating the lamp standards upon opposite sides of the frame at selected time, and means co-operating with said steering apparatus and said rack bar for automatically shifting the same as said steering apparatus is operated.

1,417,498. LOCOMOTIVE. RUFUS N. CHAMBERLAIN, Chicago, Ill., assignor of one-half to George R. Berger, Chicago, Ill. Filed Oct. 11, 1920. Serial No. 416,230. 6 Claims. (Cl. 105—35.)

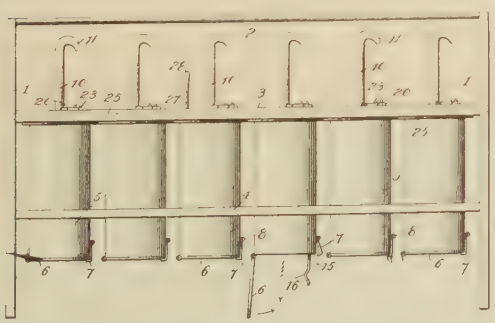
5. A motor vehicle comprising a driving motor, a storage battery for supplying energy to said motor, a prime source of power for charging said battery and having a normal load which is considerably less than that of the storage battery, substantially as described.

1,417,499. SOUND BOX. FOREST CHENEY, Chicago, Ill., assignor to Cheney Talking Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 30, 1917. Serial No. 165,401. 10 Claims. (Cl. 274—35.)



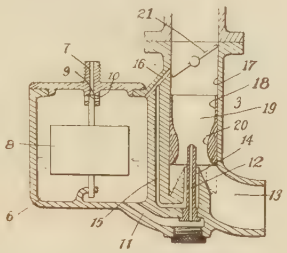
1. A sound box, comprising in combination, a diaphragm and an opposed wall, said diaphragm and wall being convex with relation to a plane which is perpendicular to the outlet from the box and which intersects the space between the wall and diaphragm, substantially as described.

1,417,500. ADVERTISEMENT DISTRIBUTOR. ALBERT COLEY and ARTHUR W. MARLER, Sapulpa, Okla. Filed June 23, 1920. Serial No. 391,251. 10 Claims. (Cl. 244—1.)



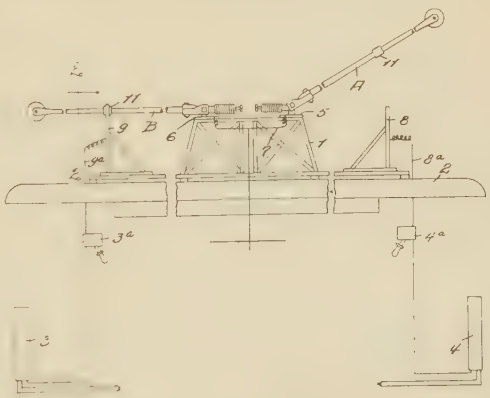
1. An advertisement distributor comprising a barrel, a door hinged to the lower end of the barrel, means for holding the door closed, a plunger operable in the barrel, scrapers carried by the plunger and engaging the inner wall of the barrel, and means for releasing the door.

1,417,501. CARBURETOR. WILLIAM H. COLLIER, Brentwood, Tenn. Filed Dec. 26, 1916. Serial No. 138,895. 3 Claims. (Cl. 261—72.)



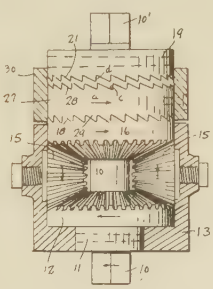
3. In a carburetor, the combination of a main air passage, a nozzle therein, a source of fuel supply connected to that nozzle, a passage for equalizing vacuum between the space around said nozzle and said source of fuel supply, and a sliding suction-operated valve controlling said main air passage anterior to said nozzle.

1,417,502. ELECTRIC TROLLEY CAR. CHARLES H. COPLEY, Springfield, Mo., assignor of one-half to Clarence N. Nichols, New York, N. Y. Filed May 28, 1920. Serial No. 384,923. 10 Claims. (Cl. 191—50.)



1. In an electric trolley car, a controller, a trolley pole, and means for preventing said controller from being utilized to start and operate the car unless the trolley pole projects rearwardly or in an opposite direction to the proposed path of travel of the car.

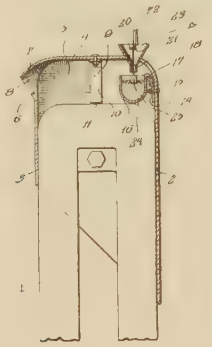
1,417,503. MECHANICAL MOVEMENT. ALBERT E. CRANSTON, Spokane, Wash. Filed Mar. 28, 1921. Serial No. 456,418. 5 Claims. (Cl. 74—54.)



1. A mechanical movement comprising a shaft to be driven, a driving member rotatably mounted on said shaft

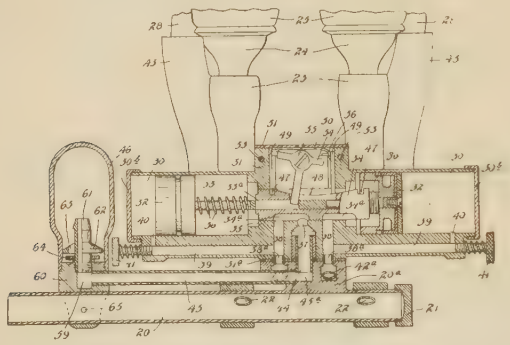
and slidable with respect thereto; a driven member secured to said shaft and adapted to be directly driven by said driving member only when said driving member is rotated in one direction, a third member secured to said shaft, an intermediate member rotatably mounted on said shaft and adapted to be driven by said driving member only when said driving member is rotated in the opposite direction, means operatively connecting said intermediate and said third members whereby their direction of rotation is opposite when said shaft or said intermediate member is rotated.

1,417,504. ATTACHMENT FOR RADIATORS. JOHN J. DESJARDINS, Martinette, Wis. Filed Jan. 6, 1920. Serial No. 349,775. 2 Claims. (Cl. 237—78.)



1. A radiator attachment comprising a hood designed to be slipped over the upper portion of a radiator, means within the hood engaging the top of the radiator for holding the top of the hood in spaced relation to the radiator, a plate secured against the rear wall of the hood and formed with a retaining lip, an elongated trough removably mounted within the hood and formed with a flange detachably engaged upon said lip, and means mounted upon the top of the hood for feeding water to said trough.

1,417,505. MILKING APPARATUS. LAURITS DINESEN, Minneapolis, Minn., assignor, by mesne assignments, to Perfection Manufacturing Company, Minneapolis, Minn., a Corporation of Minnesota. Filed Apr. 10, 1920. Serial No. 372,748. 8 Claims. (Cl. 31—101.)



1. In a milking apparatus, a main line tube, a coupling head connected to the extended end of said tube and provided with milk intake ports and with air intake ports, of a group of teat cups, milk and air tubes connecting said teat cups, respectively, to the milk and air intake ports of said coupler head, and a pulsator mechanism comprising a vacuum motor detachably secured to said coupler head and having ports alignable with the air intake ports of the latter.

2. In a milking apparatus, a main line tube, a coupling head connected to the extended end of said tube and provided with milk intake ports and with air intake ports, of a group of teat cups, milk and air tubes connecting said teat cups, respectively, to the milk and air intake ports of said coupler head, and a pulsator mechanism comprising a vacuum motor detachably secured to said coupler head and having ports alignable with the air intake ports of the latter, the aligned ports of said coupler head and vacuum motor being at offset points and having telescoping parts that hold said motor and coupler head aligned.

3. In a milking apparatus, a main line tube, a coupling head connected to the extended end of said tube and provided with milk intake ports and with air intake ports, of a group of teat cups, milk and air tubes connecting said teat cups, respectively, to the milk and air intake ports of said coupler head, a pulsator mechanism comprising a vacuum motor detachably secured to said coupler head and having ports alignable with the air intake ports of the latter, and means for rigidly but detachably connecting said motor to said coupling head, comprising a spring yoke arranged to embrace said coupler head and having interlocking engagement with said motor.

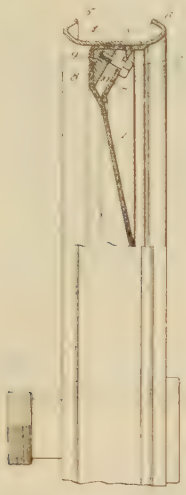
6. In a milking apparatus, the combination with a milk receptacle and a main combined milk and air tube extended therefrom, of a coupler head connected to the extended end of said main tube and provided with milk conducting nipples and air conducting nipples projecting therefrom, a group of two-chambered teat cups, milk tubes extended from the inner chambers of said teat cups to said milk conducting nipples, air tubes connecting the outer chambers of said teat cups to said air conducting nipples, an equalizing chamber located on said coupling head and having a port for the delivery of air therethrough, a vacuum motor detachably connected to said coupling head, said coupling head and the motor having opposing faces and, in said opposing faces, having intermediate and outer air ports arranged to be alternately connected by said motor, said intermediate port being connected to said equalizing chamber and said outer ports being connected to different members of said air conducting nipples.

7. In a milking apparatus, the combination with a milk receptacle and a main combined milk and air tube extended therefrom, a coupler head connected to the extended end of said main tube and provided with four milk conducting nipples and four air conducting nipples projecting therefrom, two groups of two-chambered teat cups, milk tubes connecting the inner chambers of said teat cups to said milk conducting nipples, air tubes connecting the outer chambers of said teat cups and said air conducting nipples, an equalizing chamber located on said coupler head and having a port for the delivery of air thereto, a vacuum motor detachably connected to said coupling head, said motor and said head having opposing bearing faces, means for securing said motor to said coupling head, said coupling head and motor, in their opposing faces, having intermediate and outer air ports arranged to be alternately connected by said motor, said intermediate port being connected to said equalizing chamber and said outer ports being connected to different members of said air conducting nipples.

1,417,506. DISK-WHEEL RIM. THOMAS I. DUFFY, Chicago, Ill., assignor, by direct and mesne assignments, to Nels Gross, Chicago, Ill. Original application filed Nov. 15, 1919, Serial No. 338,335. Divided and this application filed June 12, 1920. Serial No. 388,477. 3 Claims. (Cl. 152—21.)

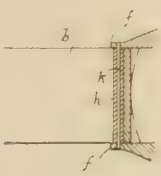
1. In a vehicle wheel, a rim member comprising a member formed with a tire-retaining flange at one edge, in combination with a web of the wheel at the circumference of which the rim member is rigidly positioned, said web extending from the rim in a plane offset from the middle toward the flanged edge of said rim member, and a removable rim member formed with an opposing tire-retaining flange and having an annular part which extends into lodgment against the wheel web at a distance inward from the

rim toward the wheel center, and fastening screws which clamp said annular part of said second rim member at its greater and lesser circumferences respectively, against the



margin of the first rim member opposite the flange thereof and against the wheel web at a distance inward from the rim.

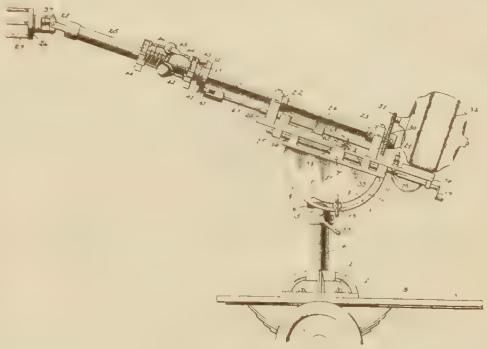
1,417,507. STRAP CONNECTOR. EZRA C. FITCH, Manchester, Mass., assignor to Waltham Watch Company, Waltham, Mass., a Corporation of Massachusetts. Filed Feb. 8, 1921. Serial No. 443,327. 6 Claims. (Cl. 224—4.)



1. The combination of a member having lugs spaced apart, with a second member having a loop or eye in its end adapted to enter between such lugs, a tube occupying said eye, and a pin passing through said tube and into the lugs and being of springy material and offset between its ends to an extent which causes it to be clutched by the ends and intermediate part of the tube.

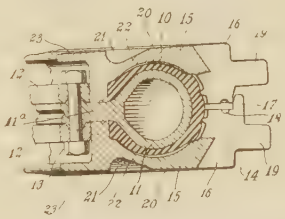
1,417,508. STARTING DEVICE FOR AEROPLANE ENGINES. ROBERT T. FOSTER, Seattle, Wash. Filed May 10, 1920. Serial No. 380,111. 5 Claims. (Cl. 244—31.)

1. A device of the character described comprising a base member, a vertical post supported by the base member, a platform supported revolubly on said post and adapted to be tilted to various degrees of inclination, a starting shaft comprising telescoping sections, mounted revolubly on said platform and extendible therefrom, a clutch head at the outer end of the shaft removably applicable to the propeller of an aeroplane or the like to effect driving connection with the aeroplane engine, means for extending the telescoping shaft sections, a locking dog for retaining the sections normally extended, a spring for telescoping the shaft sections when the dog is released, a motor on the platform for driving the starting shaft and a governor mechanism on the shaft operable



to release the dog when said shaft is revolved at a predetermined speed to effect the release of the clutch head from the aeroplane propeller.

1,417,509. VULCANIZING MOLD FOR TIRE CASINGS. JOHN R. GAMMETER, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York. Filed July 25, 1921. Serial No. 487,440. 7 Claims. (Cl. 18—38.)

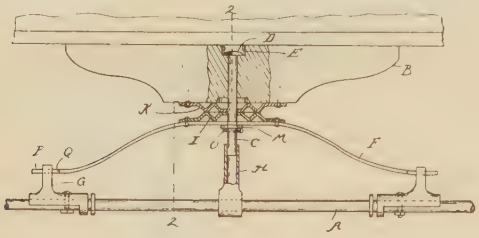


1. A tire mold comprising a pair of continuous annular members formed with a molding cavity, said mold having its tread portion transected by a series of venting slots.

1,417,510. FLASH IGNITER. FRANK A. GAUGER and ROY W. JOHNSON, Milwaukee, Wis. Filed Dec. 6, 1920. Serial No. 428,569. 6 Claims. (Cl. 158—115.)

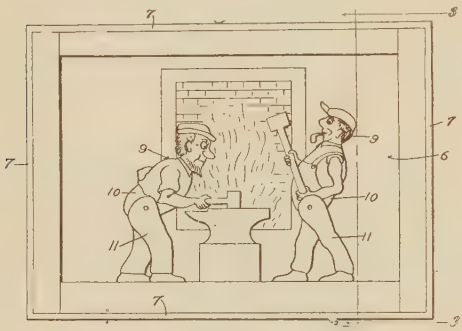
1. A valve of the class described comprising a body provided with a well and with ports communicating with said well at points spaced longitudinally of the well, a valve sleeve plug engaged in the well and terminating short of the inner port and provided in its periphery with an annular recess registering with the other port and further provided with openings at said recess, the sleeve plug being reduced in bore outwardly of the ports, a valve steam movable through said reduced bore portion, and a head on the stem co-acting with the inner portion of the sleeve plug.

1,417,511. SPRING SUPPORT FOR VEHICLES. BENJAMIN D. GEER, Ypsilanti, Mich., assignor to Lewis-Geer Mfg. Company, Ypsilanti, Mich., a Corporation of Michigan. Filed July 23, 1921. Serial No. 487,005. 7 Claims. (Cl. 280—136.)



1. A child's wagon comprising a bolster, an axle, a spring for supporting said bolster upon said axle, a king bolt passing through said bolster and spring, and a tubular member secured to said axle for telescopically engaging said king bolt.

1,417,512. SAND TOY. GEORGE J. GENUNG, Beaver Falls, and WILBERT L. WELSH, New Brighton, Pa. Filed Jan. 29, 1921. Serial No. 441,060. 3 Claims. (Cl. 46—40.)

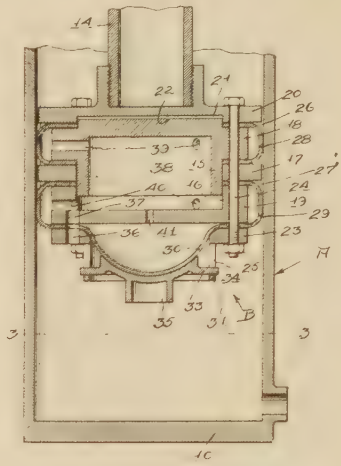


1. In a toy, a casing including front and rear walls, pivoted members supported by the front wall, a propelling wheel, a member including a pair of arms pivotally connected to the propelling wheel, a pin extending from the propelling wheel and adapted to contact with the arms, curved arms having connection with the pivoted members, a rod connecting the curved arms to move the same, a gutter disposed between the front and rear walls, said gutter having an opening to permit the passage of sand therefrom, said opening adapted to direct sand to the propelling wheel for rotating the same, and a bracket for supporting the propelling wheel.

1,417,513. ROOF STRUCTURE. GEORGE GEYER, Hammond, Ind., assignor to Federal Cement Tile Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 16, 1921. Serial No. 452,690. 3 Claims. (Cl. 108—10.)

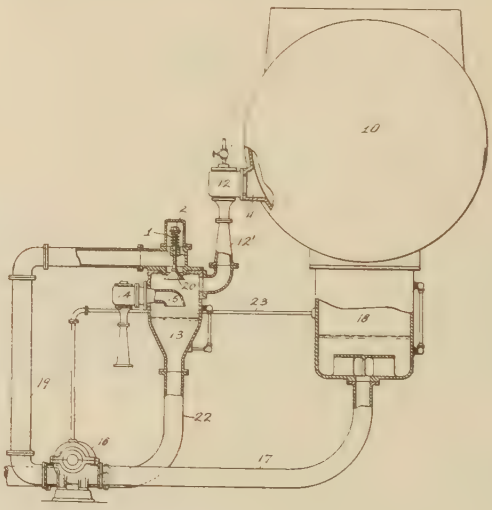
2. In combination, slabs arranged side by side in edgewise opposed relation, said slabs presenting an upwardly opening groove at their opposed edges, the upper surface of each of said slabs having an upwardly extending rib extending lengthwise thereof and located between said groove and the main body portion of the slab, said plastic cementitious filling material filling said groove and forming an exposed filler rendering water-tight the joint between said slabs.

1,417,514. PISTON. HUGO GLASER, St. Paul, Minn. Filed Apr. 30, 1921. Serial No. 465,654. 5 Claims. (Cl. 74—109.)



1. The combination with a cylinder, of a piston adapted to be propelled in said cylinder by the pressure of a fluid medium, an inflatable packing ring encircling the body of the piston and a compressible buffer bag beneath said body, said ring and bag being in communication with the bore of the cylinder and adapted to be inflated by the propelling medium therein.

1,417,515. CONDENSER SYSTEM. JOHN F. GRACE, Kearney, N. J., assignor to Worthington Pump and Machinery Corporation, New York, N. Y., a Corporation of Virginia. Filed Nov. 24, 1920. Serial No. 426,142. 4 Claims. (Cl. 103—79.)

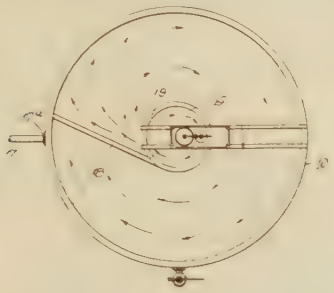


4. The combination with a two-stage pump, one stage of which delivers against a lower head than the other, of means for increasing the head on the stage delivering against the lower head to secure the proper operation of the pump.

1,417,516. SETTLING TANK. WALTER H. GREEN, Chicago, Ill., assignor to International Filter Co., Chicago, Ill., a Corporation of Illinois. Filed July 12, 1919. Serial No. 310,385. 8 Claims. (Cl. 210—60.)

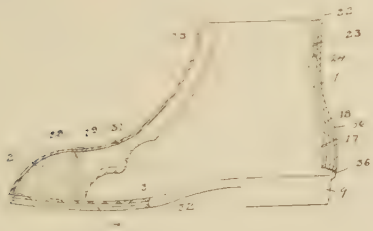
1. A settling tank comprising an inner and an outer chamber having a communicating opening at the bottom,

means to cause the water to travel around within the wall of the inner chamber from the top to the bottom, and



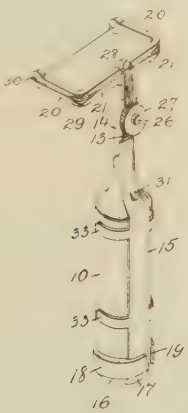
means to cause the water to travel around within the wall of the outer chamber from the bottom to the top.

1,417,517. SHOE. JOSEPH HAJEK, Follansbee, W. Va. Filed Aug. 5, 1919. Serial No. 315,479. 2 Claims. (Cl. 36—3.)



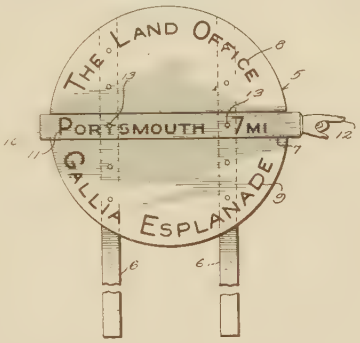
1. In a shoe, means for forcing a circulation of air thereinto, said means including a series of tubes, said tubes being perforated at intervals, and means for distributing said air in the shoe, said last means consisting of a grooved toe box, the grooves of which are perforated, certain of said tubes being located between the slip sole and insole of the shoe, certain other of said tubes being located against the vamp of the shoe, and within the lining of the vamp, said tubes being flexible, whereby pressure thereon will cause them to pump air, valves located in said tubes, certain of which permit ingress and prevent egress of air therethrough.

1,417,518. DENTAL FLOSS HOLDER. GEORGE C. HENERLAU, Newark, N. J. Filed Jan. 25, 1922. Serial No. 531,530. 5 Claims. (Cl. 132—92.)



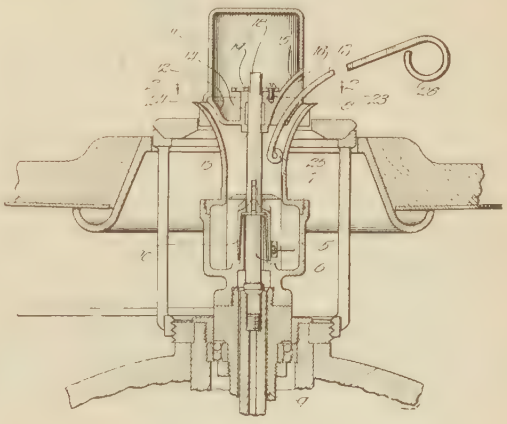
3. A dental floss holder comprising a container slitted at one side from top to bottom, a shield covering the slit, and having spring arms to embrace the container, the container being narrower at the top to form a stem, the shield terminating short of the top of the stem to permit the passage of a strand of floss from the spool, and separated arms at the top of the stem for holding the strand.

1,417,519. SIGN. CHARLES W. G. HANNAH, Portsmouth, Ohio. Original application filed Oct. 4, 1921. Serial No. 505,322. Divided and this application filed Nov. 30, 1921. Serial No. 519,024. 3 Claims. (Cl. 40—125.)



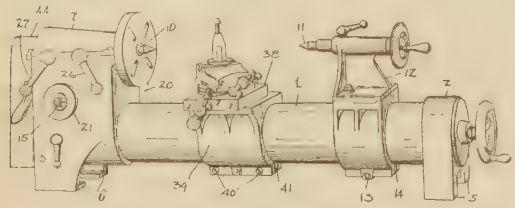
1. In a sign of the character described, a body provided with a central opening extending substantially horizontal, said body being provided with advertising data above and below the central opening, means to support the body, a strip adapted to be mounted within said opening and provided at one end with a hand permanently connected therewith, said strip being provided upon its opposite sides with data which is identical, said data indicating in substance the name and location of the desired place, and means for detachably holding said strip within said opening, whereby the strip may be shifted so that its hand may point in either direction and the data upon either side may be properly read.

1,417,520. OIL BURNER. FRANKLIN HARDINGE, Chicago, Ill. Filed May 16, 1921. Serial No. 470,209. 6 Claims. (Cl. 158—77.)



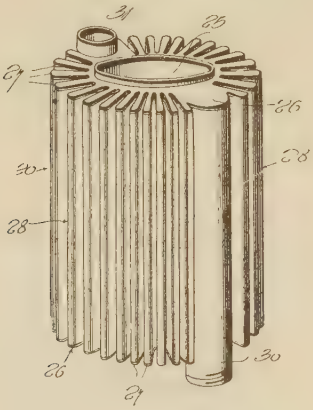
3. An oil burner comprising an outwardly flaring rotary atomizing nozzle, a standpipe projecting upwardly into said nozzle for supplying oil thereto, and means secured to the upper end of said standpipe for holding a cleaning device in engagement with the inner surface of said atomizing nozzle.

1,417,521. LATHE. GEORGE HAUMANN, Cleveland, Ohio, assignor, by mesne assignments, to The Urban Machine and Tool Company. Filed June 4, 1919. Serial No. 301,761. 9 Claims. (Cl. 82—2.)



1. In a lathe, the combination of a slotted tubular member of large diameter and relatively thin material having a cylindrical exterior; supports sleeved upon the respective ends of said member, one of said supports constituting a head-stock change speed gear casing and motor support; a tool-carriage adjustably mounted on said member; a longitudinally disposed work-spindle mounted in said head-stock; a transversely disposed power shaft in said head-stock; a second shaft parallel with said spindle; a worm drive connecting said two shafts; change-speed gearing adapted to connect said second shaft with said spindle; a feed screw centrally housed within said tubular member; a gear train connecting said work spindle and feed screw; and a member mounted on said tool carriage coacting with said feed screw.

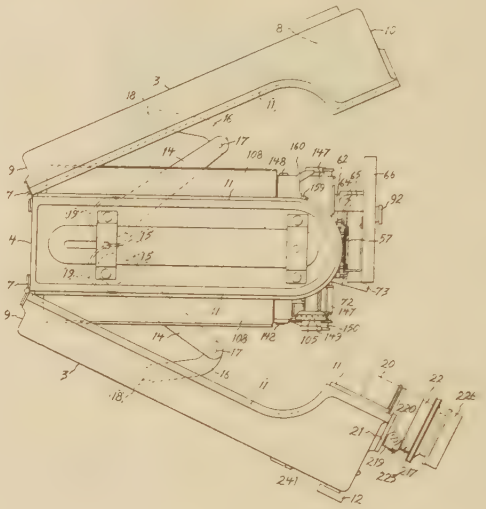
1,417,522. BOILER FOR INCUBATOR HEATERS. DAVID M. HOLBROOK, Portland, Oreg. Filed Jan. 22, 1920. Serial No. 353,258. 1 Claim. (Cl. 122—155.)



A boiler comprising an open-ended hollow cylinder, a water inlet pipe at one side of said cylinder and a water outlet pipe at the diametrically opposite side thereof, both of said pipes being outside of said cylinder and extending longitudinally thereof, a pair of fluted sheets both secured along one of their edges to one of said pipes and each secured along its opposite edge to the other pipe, said sheets extending arcuately around opposite halves of said cylinder in spaced relation therewith, and end plates secured to the ends of said fluted sheets and said cylinder and forming therewith a water chamber, said pipes having openings communicating with said chamber.

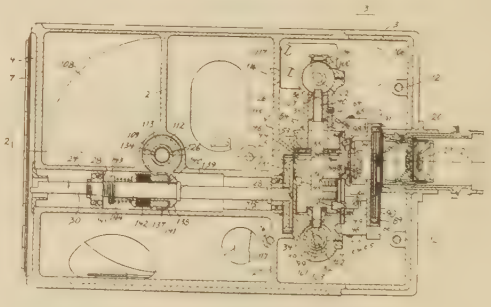
1,417,523. MOTION-PICTURE CAMERA AND TRIPOD. ALBERT SUMMERS HOWELL, Chicago, Ill., assignor to Bell & Howell Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 28, 1919. Serial No. 293,249. 20 Claims. (Cl. 88—17.)

1. A device of the character described including a central frame having upper and lower walls; a closure fitted to said central frame on each side thereof to form an enclosure thereabout with said upper and lower walls, said closures extending beyond said upper and lower walls at one end and including upper and lower wall portions



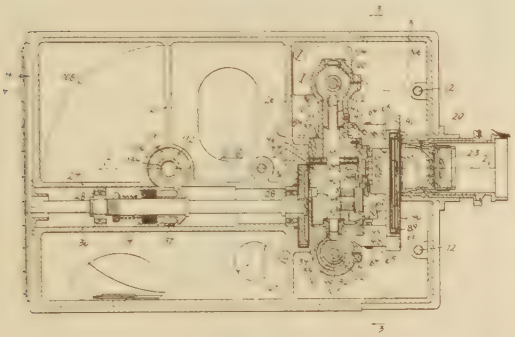
meeting to complete the enclosure; and means for securing said closures in closed position on said central frame and adapted to be actuated to allow movement to said closures away from their closed positions to permit access to the central frame.

1,417,524. FILM-FEEDING MECHANISM FOR MOTION-PICTURE CAMERAS AND THE LIKE. ALBERT S. HOWELL, Chicago, Ill., assignor to Bell and Howell Company, Chicago, Ill., a Corporation of Illinois. Original application filed Apr. 28, 1919, Serial No. 293,249. Divided and this application filed Oct. 11, 1919. Serial No. 330,032. 14 Claims. (Cl. 88—18.4.)



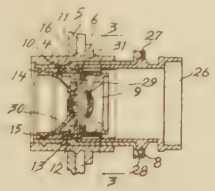
1. A device of the nature described including a pair of film magazines arranged in parallel spaced relation, a rotatably mounted driving shaft disposed between said film magazines in parallelism therewith, a spur gear affixed to said shaft to rotate therewith and disposed outwardly of said magazines, step by step mechanism including rotatably mounted coaxial cams disposed on the side of said gear opposite said magazines in front of the adjacent end of said shaft on an axis normal thereto and parallel with said magazines, and a gear driving connection between said gear and said cams disposed outwardly of said magazines and including a second spur gear meshing with said first mentioned gear and spiral gearing.

1,417,525. ACTUATING MECHANISM FOR MOTION-PICTURE CAMERAS AND THE LIKE. ALBERT S. HOWELL, Chicago, Ill., assignor to Bell and Howell Company, Chicago, Ill., a Corporation of Illinois. Original application filed Apr. 28, 1919. Serial No. 293,249. Divided and this application filed Oct. 11, 1919. Serial No. 330,143. 9 Claims. (Cl. 88—17.)



1. A device of the nature described including a rotatably mounted spur gear, step by step mechanism including a rotatably mounted cam disposed on an axis disposed on one side of the plane of said gear and normal to the axis thereof, a driving connection between said gear and said cam including a spur gear meshing with said first mentioned gear and disposed on an axis parallel to the axis of said first mentioned gear and extending past one side of the axis of said cam and a spiral gearing connection between said second mentioned gear and said cam including a spiral disposed on an axis coincident with that of said second mentioned gear, a rotatably mounted shutter disposed on the side of said cam opposite said first mentioned gear and disposed on an axis coincident with said second mentioned gear, and a driving connection between said first mentioned driving connection and said shutter to rotate the same in unison with said cam.

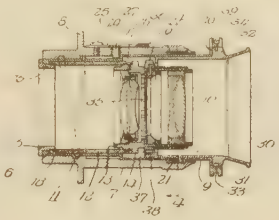
1,417,526. LENS MOUNT FOR CAMERAS. ALBERT S. HOWELL, Chicago, Ill., assignor to Bell and Howell Company, Chicago, Ill., a Corporation of Illinois. Original application filed Apr. 23, 1919. Serial No. 293,249. Divided and this application filed Oct. 11, 1919. Serial No. 330,144. 9 Claims. (Cl. 95—45.)



1. A device of the character described including an internally threaded bush, an externally threaded bush screwthreaded into said first mentioned bush, and a friction device including a friction element mounted on one of said bushes and frictionally engaging the other bush and adapted to be disengaged from said other bush to permit easy manipulation of said bushes into and out of screw-threaded engagement.

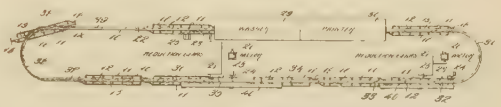
1,417,527. FOCUSING DEVICE FOR CAMERA LENSES. ALBERT S. HOWELL, Chicago, Ill., assignor to Bell & Howell Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 20, 1920. Serial No. 411,514. 12 Claims. (Cl. 95—45.)

1. A device of the nature described including a camera lens, a support therefor adapted to permit movement of the lens relatively thereto longitudinally of the axis of the to permit the focusing of the lens, an adjustable iris diaphragm device for the lens, an indexing device adapted to indicate predetermined adjustments of the iris diaphragm



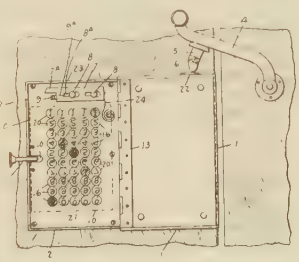
device, and an indexing device adapted to indicate predetermined focal adjustments of the lens relatively to said support both with relation to the distance between objects to be focused and the support and with relation to the adjustment of the iris device.

1,417,528. ELEVATED CARRIER FOR HANDLING FRAMES AND THE LIKE. WILLIAM E. IRISH and ALOIS KARL NOWAK, Cleveland, Ohio, assignors to The Hydraulic Pressed Steel Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 8, 1919. Serial No. 329,326. 16 Claims. (Cl. 104—91.)



1. In an elevated carrier, the combination with an endless track having portions thereof level, portions thereof upwardly inclined, and portions thereof downwardly inclined, of carriers movable upon said track, independent moving devices for moving the carriers up the inclined portions of said track and along the level portions thereof, and means associated with said moving device for absorbing any forward thrust imparted thereto by the forward movement of said carriers upon contact therewith.

1,417,529. AUTOMATIC LOCK. SALVATORE IZZO, Rome, Italy, assignor to Rev. Marino Priori, Indianapolis, Ind. Filed Apr. 16, 1920. Serial No. 374,469. 7 Claims. (Cl. 70—54.)



1. A lock having in combination a latch, including a recessed tooth, a hinged casing having an opening in one end of each hinged portion, said openings registering when said hinged casing portions are in closed position to receive said recessed tooth, a bolt slidable into engagement with said recessed tooth to retain the same in the lock and the lock casing in closed position.

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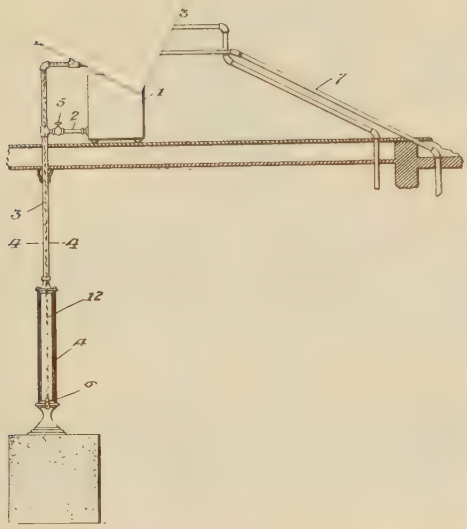
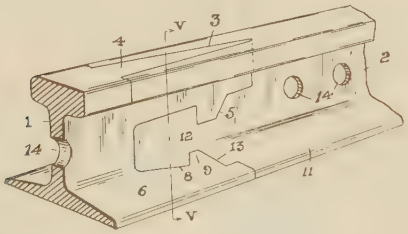
...ING SYSTEM FOR OIL ...NSING SYSTEMS. Clar-E. Kendall, Odin M. Kenancock, Houston, Tex. Filed No. 479,156. 7 Claims. (Cl.



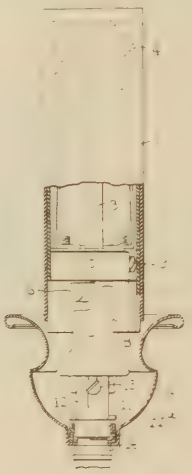
1. A viscosity indicator system for liquid dispensing and displaying systems, comprising a receptacle having transparent walls, an air-supply duct communicating with the interior of said receptacle in the lower portion thereof, means for supplying air under pressure to said duct, means for controlling the degree of pressure of the air so supplied, an outlet pipe communicating with the interior of the upper portion of said receptacle, and a branch pipe communicating with the upper part of said outlet pipe and having an open end arranged to return to the supply reservoir for said receptacle such liquid as may be carried up from said receptacle by the escaping air.

1,417,531. RAIL CONNECTOR. William H. Kirkwood, Kittanning, Pa. Filed Oct. 29, 1921. Serial No. 511,484. 1 Claim. (Cl. 238—233.)



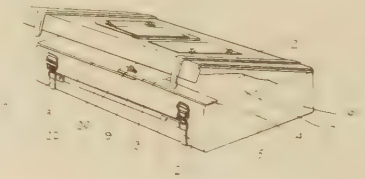
In a continuous rail joint the combination of the adjacent ends of two rails provided with interlocking means, which includes a tongue comprising the end portion of the head of one of said rails, the web having a portion cut away on the lower side thereof and a slot formed in the base flange; the head of the adjacent rail having a slot and the web a cut away portion on the upper side and an extension on the base flange, the web of the last mentioned rail having a notch, and the web of the adjacent rail a prong, the projection and prong of one rail being adapted to engage in the corresponding slot or recess on the adjacent rail forming a substantially continuous rail joint.

1,417,532. ELECTRIC CANDLE AND THE LIKE. Charles J. Klein, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed June 21, 1917. Serial No. 176,036. 5 Claims. (Cl. 240—52.)



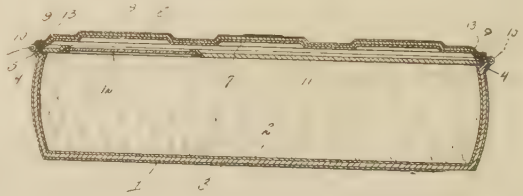
1. The combination with a candle shell, of a lamp socket fitting therefor, a cup to receive said shell and fitting and an extensible supporting device for said shell and fitting arranged within said cup and providing for adjustment of said shell and fitting relative to said cup.

1,417,533. SHIPPING CASE. Victor L. Krannert, Urbana, Ill., assignor to Saf-Pak Manufacturing Company, Anderson, Ind., a Copartnership consisting of Claud A. Behringer and Herman C. Krannert. Filed Sept. 20, 1921. Serial No. 501,951. 6 Claims. (Cl. 150—52.)



1. A shipping case comprising a box portion, a fabric covering for said box portion, an address flap having one edge hingedly secured to said cover, and means for securing said flap in position on either side of the hinged edge for the purpose of concealing the address of the sender and revealing the destination of the receiver.

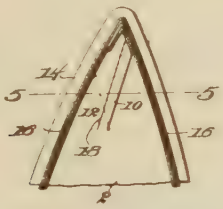
1,417,534. BURIAL CASKET. Francis J. Leo, Buffalo, N. Y. Filed Sept. 10, 1921. Serial No. 499,713. 1 Claim. (Cl. 27—3.)



In a casket, the combination with a body comprising outer and inner metallic layers, and an interposed filling of cork between said layers and arranged with its upper edge exposed, of a cover including outer and inner layers

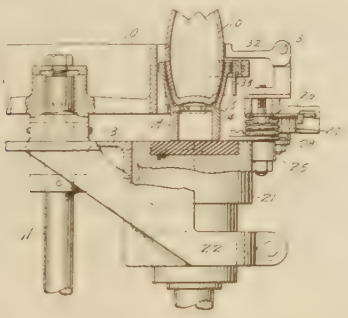
of metal, and an interposed filling of cork, said filling arranged outwardly beyond the inner layer to bear on the upper edge of the body filling, an inner cover superimposed on the body and having a transparent portion, and a seal of plastic material occupying a cavity in the body filling and receiving the edge of the inner cover.

1,417,535. SOLE. AUGUSTINE FRANK LITTLEFIELD, Lynn, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 4, 1919. Serial No. 315,096. 10 Claims. (Cl. 36—22.)



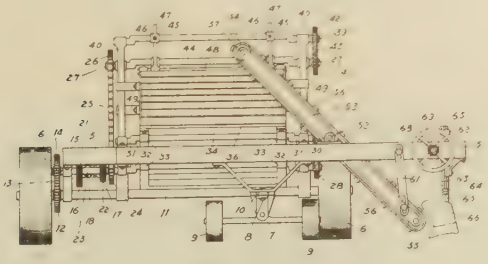
10. A sheet of reinforce for soles having a central longitudinal slit extending inward from one end edge of such length as to permit the two ends thus produced to be overlapped.

1,417,536. PACKAGING APPARATUS. FRANK L. LLOYD, Baltimore, Md., assignor to The Crown Cork and Seal Company of Baltimore City, a Corporation of Maryland. Filed July 20, 1918. Serial No. 245,796. 3 Claims. (Cl. 226—77.)



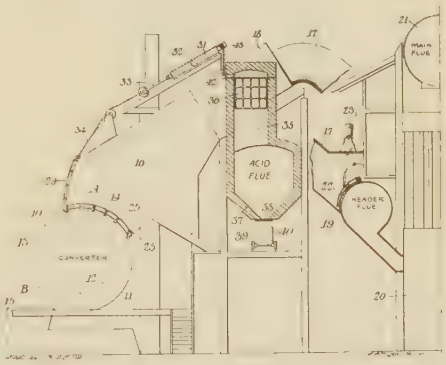
3. In packaging apparatus, a feeding dial having a bottle receiving pocket therein, a support having vertical movement with respect to said dial, an operating lever, a connecting member for swinging said lever, and a wiper located above the dial rim and in the path of the bottles, said wiper being pivotally mounted in said connecting member.

1,417,537. QUACK-GRASS DIGGER. ROBERT LUCY, Olga, N. Dak. Filed Oct. 7, 1921. Serial No. 505,996. 8 Claims. (Cl. 55—51.)



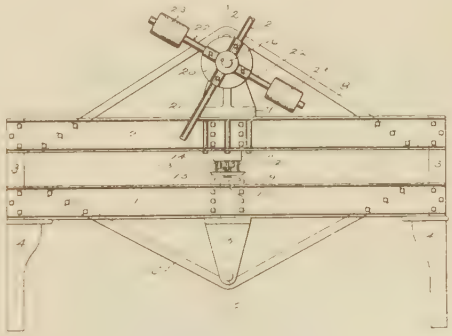
1. A machine of the class described consisting of a wheel supported frame adapted to be drawn, an inclined elevator mounted transversely in the front end of the frame, a plow adapted to turn dirt over onto the lower end of the elevator, a lower shaker positioned longitudinally of the machine, the same having its forward end under the upper end of the elevator and being inclined rearwardly, an upper shaker positioned over the greater part of the lower shaker, said upper shaker being adapted to reciprocate vertically, and means for simultaneously actuating said elevator and shakers.

1,417,538. CONVERTER PLANT. ALEXANDER GRANT MCGREGOR, Warren, Ariz. Filed Aug. 26, 1920. Serial No. 406,119. 27 Claims. (Cl. 266—18.)



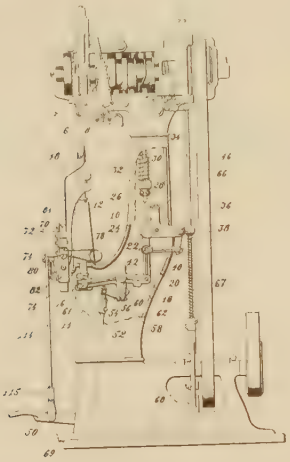
1. The combination with a horizontally disposed, tilting or rotary converter having in its side an opening or spout, and a hood having a mouth disposed about said spout when said converter is in operative position, of means for closing the space between said hood and the outer surface of said converter, said means being adapted to permit rotation of said converter.

1,417,539. PUNCH PRESS. ROBERT M. MACGREGOR, Hartford, Conn. Filed Apr. 30, 1921. Serial No. 465,639. 5 Claims. (Cl. 164—102.)



1. A punch press having a frame comprising a pair of parallel bars arranged horizontally and supported at their ends upon legs, a die bed mounted on said bars intermediate the legs, a pair of parallel bars horizontally arranged and supported at their ends above the first mentioned bars, a ram guide mounted on said upper bars intermediate the end supports, a tool carrying ram movable up and down through said ram guide, rotatory means mounted on said upper bars for reciprocating the ram, and a weighted hand wheel for rotating said ram reciprocating means.

1,417,540. WORK SUPPORT. FRED L. MACKENZIE, Beverly, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 1, 1918, Serial No. 247,732. Renewed July 16, 1921. Serial No. 485,349. 65 Claims. (Cl. 1—41.)

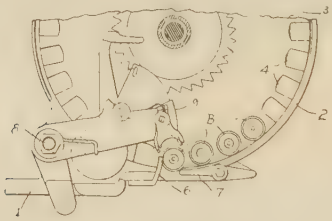


1. In a machine of the class described, a work support movable between work-receiving and work-clamping positions and normally locked in work-receiving position, manually operable means for moving the support toward work-clamping position, and means for automatically adjusting the support to variations in the thickness of work and for locking said support in adjusted position preliminarily to the operation of the machine.

8. In a machine of the class described, a work support movable between work-receiving and work-clamping positions, manually operated means for moving the support toward work-clamping position, spring means for then completing the upward movement of the work support to measure the work, and means for locking the work support after the measuring operation.

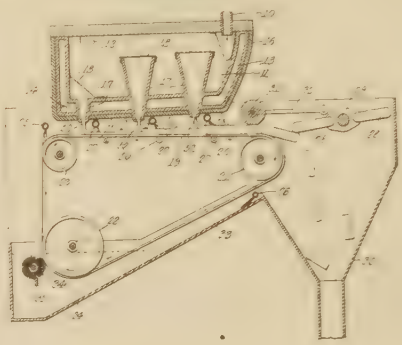
16. In a machine of the class described, a work support normally locked in position on the machine, a spring for moving said support, and manually controlled locking means operative to release said support to the action of the spring and to lock said support at the termination of its movement by the spring.

1,417,541. TRANSFERRING MECHANISM FOR AUTOMATIC FILLING-REPLENISHING LOOMS. EVARISTE MARTIN, Manchester, N. H., assignor of one-half to Azade Duval, Manchester, N. H. Filed May 22, 1920. Serial No. 383,429. 6 Claims. (Cl. 95—45.)



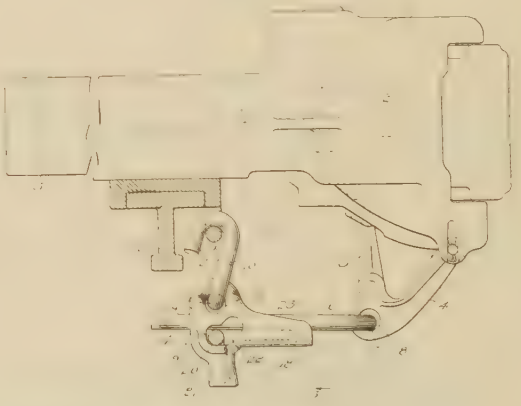
1. In a transferring mechanism for automatic filling replenishing looms, the combination of a head operating on the butt of the filling carrier, with a shaft carried thereby extending from said head parallel with the filling carrier to a point opposite the tip thereof, and grippers carried by the shaft comprising a downwardly extending arm fixed to the shaft and terminating in a fixed jaw in position to enter the shuttle and to engage the filling midway on the winding cone at the tip end of the filling carrier; a movable arm pivoted to the shaft adjoining the fixed arm and terminating in a movable jaw in position to enter the shuttle and having a closing finger in position to engage the top of the filling carrier when the head and shaft descend to transfer the filling, so located and of such shape that as the grippers descend it will engage the filling carrier and close the movable jaw on the fixed jaw, thereby gripping the filling on the filling carrier near the tip and holding the filling carrier firmly in position until the head and shaft are withdrawn, together with a spring adapted to normally separate the movable jaw from the fixed jaw.

1,417,542. PROCESS AND APPARATUS FOR CASTING HOT LIQUID MATERIAL. JOHN L. MAUCH, Brooklyn, N. Y. Filed May 10, 1921. Serial No. 468,223. 25 Claims. (Cl. 18—57.)



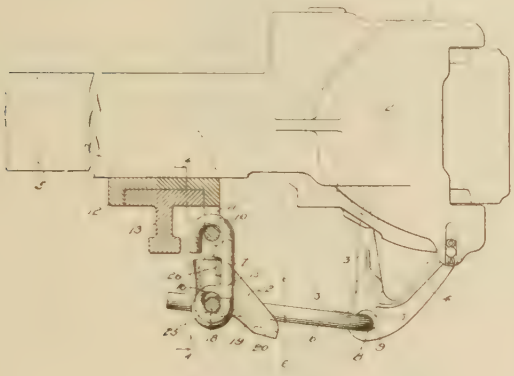
1. The herein described method of casting hot liquid material which consists in depositing said material in a thin layer upon a moving and previously wetted rubber-surfaced carrier and thereafter artificially cooling said material.

1,417,543. UNCOUPLING MECHANISM. ISAAC H. MILLIKEN, Aspinwall, and WILLIAM J. REGAN, Pittsburgh, Pa., assignors to The McConway & Torley Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 6, 1921. Serial No. 505,690. 14 Claims. (Cl. 213—59.)



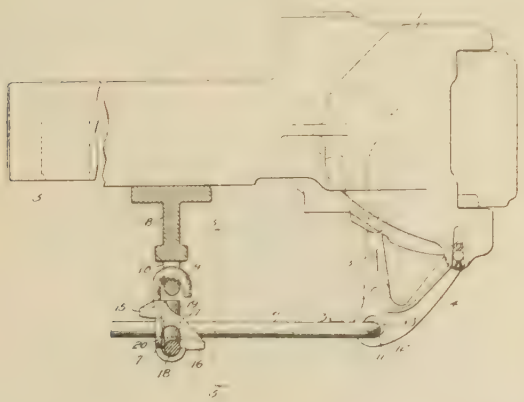
1. In an uncoupling mechanism, the combination with a car coupler and its lock, of means for moving said lock to unlocked position, said means involving a rotatable member operatively connected to said lock, means for actuating said rotatable member, an uncoupling lever for operating said actuating means, and swinging means pivotally connected to said actuating means at the center of rotation of said rotatable member for supporting said actuating means.

1,417,544. UNCOUPLING MECHANISM. ISAAC H. MILLIKEN, Aspinwall, and WILLIAM J. REGAN, Pittsburgh, Pa., assignors to The McConway & Torley Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 6, 1921. Serial No. 505,691. 14 Claims. (Cl. 213—59.)



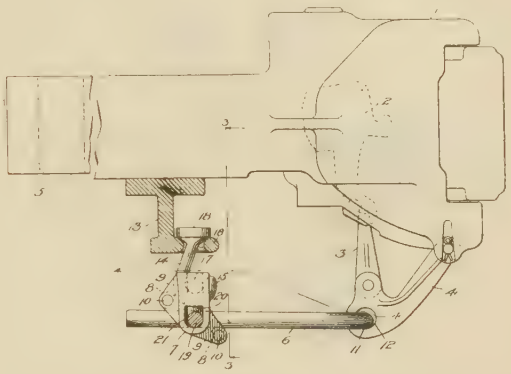
1. In an uncoupling mechanism, the combination with a car coupler and its lock, of means for moving said lock to unlocked position, said means involving a member pivotally connected to said coupler, a link interposed between and movably connecting said pivoted member and said lock, a rotatable member operatively connected to said lock, means adapted to swing lengthwise of the car engaging and supporting said rotatable member rearwardly of said lock, and means movable with respect to said swinging means for engaging and actuating said rotatable member.

1,417,545. UNCOUPLING MECHANISM. ISAAC H. MILLIKEN, Aspinwall, and WILLIAM J. REGAN, Pittsburgh, Pa., assignors to The McConway & Torley Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 6, 1921. Serial No. 505,692. 12 Claims. (Cl. 213—59.)



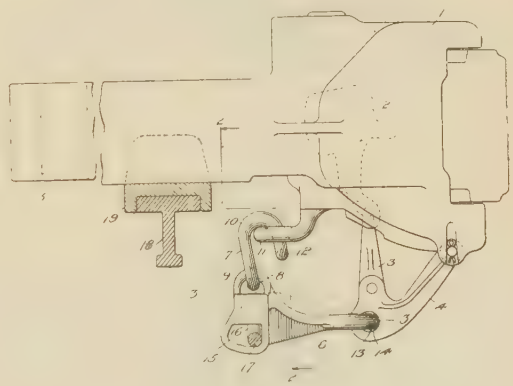
1. In an uncoupling mechanism, the combination with a car coupler and its lock, of means for moving said lock to unlocked position, said means involving a rotatable member operatively connected to said lock and extending rearwardly therefrom, the center of rotation of said member being to the rear of said lock and at a fixed distance from the adjacent end of the car, and swinging means for supporting said rotatable member, said last named means being movable with respect to said rotatable member and being adapted to swing upon the center of rotation of said member.

1,417,546. UNCOUPLING MECHANISM. ISAAC H. MILLIKEN, Aspinwall, and WILLIAM J. REGAN, Pittsburgh, Pa., assignors to The McConway & Torley Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 6, 1921. Serial No. 505,693. 11 Claims. (Cl. 213—59.)



1. In an uncoupling mechanism, the combination with a car coupler and its lock, of means for moving said lock to unlocked position, said means involving a swinging member provided with a plurality of spaced anti friction rollers, means for movably supporting said swinging member, a rotatable member operatively connected to said lock and extending between said rollers, and means for actuating said swinging member to cause said rotatable member to perform an unlocking movement.

1,417,547. UNCOUPLING MECHANISM. ISAAC H. MILLIKEN, Aspinwall, and WILLIAM J. REGAN, Pittsburgh, Pa., assignors to The McConway & Torley Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 6, 1921. Serial No. 505,694. 11 Claims. (Cl. 213—59.)

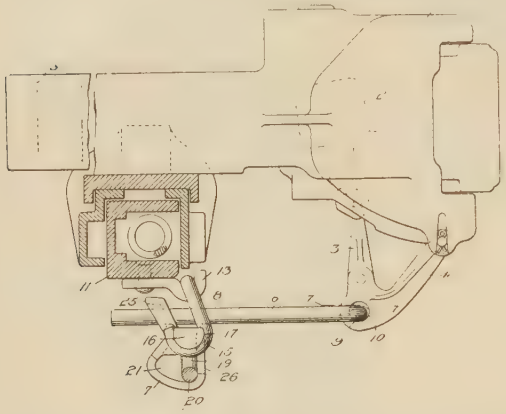


1. In an uncoupling mechanism, the combination with a car coupler and its lock, of means for moving said lock to unlocked position, said means involving a rotatable member operatively connected to said lock, means for actuating said rotatable member, and means coextensively movable with said coupler lengthwise of the car and adapted to swing in said lengthwise direction for supporting said rotatable member rearwardly of said lock.

1,417,548. UNCOUPLING MECHANISM. ISAAC H. MILLIKEN, Aspinwall, and WILLIAM J. REGAN, Pittsburgh, Pa., assignors to The McConway & Torley Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 6, 1921. Serial No. 505,695. 12 Claims. (Cl. 213—59.)

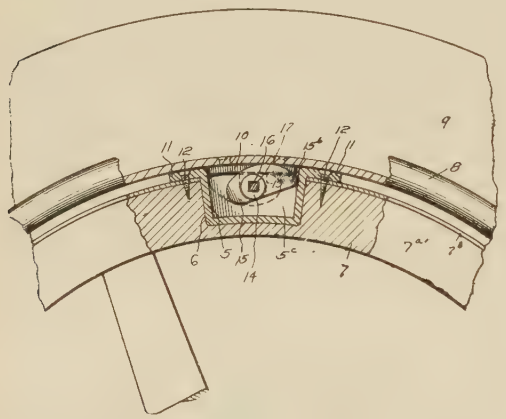
1. In an uncoupling mechanism, the combination with a car coupler, its lock and carrier iron, of means for moving

said lock to unlocked position, said means involving a rotatable member operatively connected to said lock, a bail swingingly supported by said carrier iron, means pivotally



connected to said bail adapted to actuate said rotatable member, and an uncoupling lever supported on said actuating means at a point below the point of pivotal support of said actuating means.

1,417,549. LOCK FOR DEMOUNTABLE RIMS AND TIRES. ROBINSON MONCURE, Alexandria, Va. Filed Apr. 21, 1921. Serial No. 463,110. 4 Claims. (Cl. 301—29.)

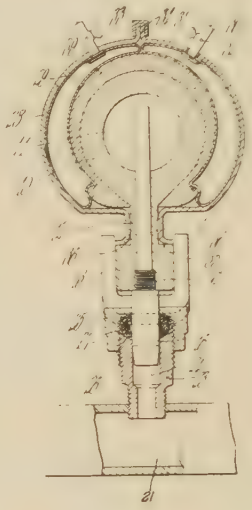


1. A rim lock of the character described comprising a housing adapted to be inserted in a recess formed in the face of the felloe of a wheel, a cam mounted in said housing and having hubs upon its opposite sides which have bearing in the side walls of said housing, means for imparting partial rotation to said cam from the exterior of the housing, the said cam being adapted to exert lateral thrust against an inwardly extending projection of a demountable rim.

1,417,550. INCUBATOR EGG TRAY. WILLISTON L. MORSE, Pawnee City, Nebr. Filed Feb. 20, 1920. Serial No. 360,025. 3 Claims. (Cl. 119—44.)

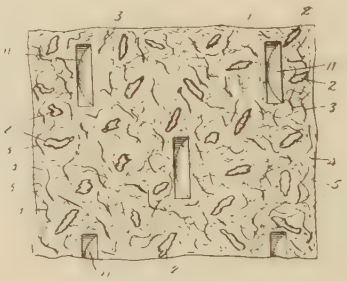
1. In an incubator tray having side walls provided with slots, rollers supported in the slots, an endless belt trained over the rollers and constituting a bottom for the incubator, an intermediate roller for the belt supported on the sides of the incubator, an adjustable guide roller over the intermediate roller adapted for engagement with the belt, and means for actuating the intermediate roller whereby to move the belt and turn the eggs resting thereupon.

1,417,551. VULCANIZING EQUIPMENT. THOMAS MIDGLEY, Hampden, Mass., assignor to The Fisk Rubber Company, Chicopee Falls, Mass., a Corporation of Massachusetts. Filed Aug. 11, 1919, Serial No. 316,665. Renewed Sept. 24, 1921. Serial No. 503,084. 14 Claims. (Cl. 18—38.)



3. A vulcanizing unit comprising a core, means for heating the core, and a mold surrounding the core and constructed and arranged to exert a yielding pressure upon a tire casing mounted on the core.

1,417,552. INDENTED FIBER BOARD. CARL G. MUENCH, St. Paul, Minn. Filed Sept. 29, 1920. Serial No. 413,549. 2 Claims. (Cl. 72—124.)

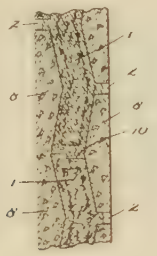


1. The herein described new article of manufacture comprising a board composed of a plurality of classes of felted cellulose fibers and provided with clean cut indentations, substantially as described.

1,417,553. CONCRETE BUILDING CONSTRUCTION. CARL G. MUENCH, St. Paul, Minn. Filed Sept. 29, 1920. Serial No. 413,550. 3 Claims. (Cl. 72—45.)

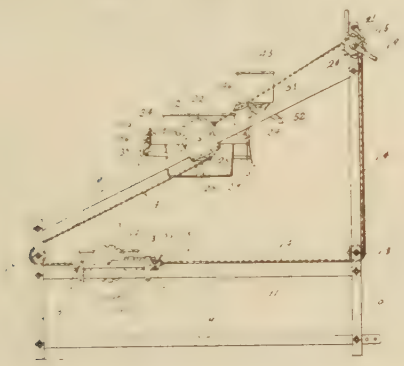
1. A concrete building construction comprising a wall having a continuous core of fibrous felted material entrain-

ing an abnormal quantity of air, and coated on both sides with a plastic material and having interlocking connections



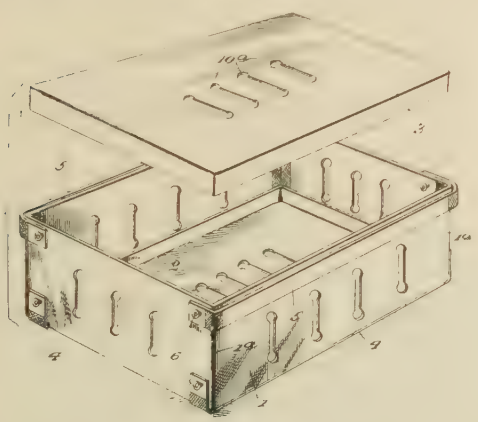
between said fibrous and plastic materials, substantially as described.

1,417,554. AUTOMATIC CALF FEEDER. MATH NEUMANN, St. Cloud, Minn. Filed Aug. 6, 1920. Serial No. 401,721. 9 Claims. (Cl. 119—81.)



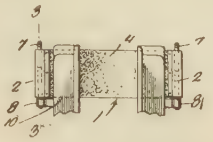
1. In an apparatus of the kind described, the combination with a frame having two sets of track rails, of two sets of travellers mounted on the track rails, means for simultaneously moving the two sets of travellers in reverse directions, a supplemental frame carried by one set of the travellers and a trough carried by the other set thereof, and pail holders carried by the supplemental frame.

1,417,555. CRATE. HENRY G. ORTH, Fulton, N. Y. Filed July 3, 1920. Serial No. 393,912. 5 Claims. (Cl. 229—41.)



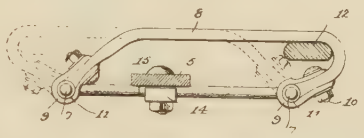
5. A crate comprising a collapsible shell, swingable flexible top and bottom confining bails permanently pivoted to and collapsible with the shell, and a separate top and a separate bottom for said shell.

1,417,556. TYPEWRITER PAD. BLANCHE G. OSBORNE, Corning, Iowa. Filed Sept. 20, 1919. Serial No. 325,115. 1 Claim. (Cl. 197—150.)



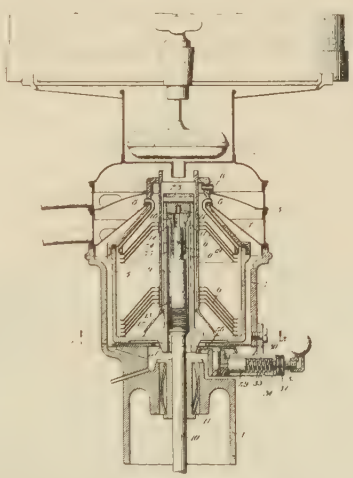
A typewriter pad comprising inked fabric, tubular supports engaging the opposite ends thereof, said supports being split longitudinally and provided with radially extending clamping lips to receive the ends of the pad and to connect them to the ribbon vibrator of a typewriter.

1,417,557. PICKER-STICK CHECK. WILLIAM M. PATTERSON, Greenville, S. C. Filed Dec. 1, 1921. Serial No. 519,151. 6 Claims. (Cl. 139—22.)



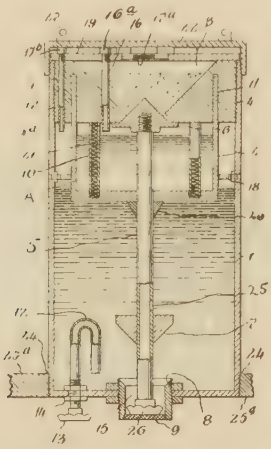
5. A picker-stick check consisting of a pair of vertical pivots and means for attaching them underneath the lay at one side thereof and at a distance apart, and a flexible check strap having its ends pivotally connected to said pivots.

1,417,558. CENTRIFUGAL SEPARATOR. ERIC G. PEARSON, Elizabeth, N. J. Filed Apr. 26, 1921. Serial No. 464,720. 15 Claims. (Cl. 64—48.)



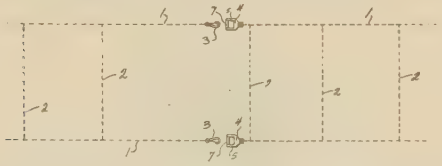
13. In a separator of the class described, a spindle, a bowl provided with a central tube surrounding said spindle and rotated therefrom, the inside diameter of said tube being substantially larger than said spindle, a yielding sleeve surrounding said spindle, a cone adapted to expand said sleeve to cause it to frictionally engage the inner surface of said tube, said cone being provided with a flat bowl-supporting surface upon which the weight of the bowl rests, said yielding sleeve and flat bowl-supporting surface affording means permitting bodily lateral movement of said bowl with respect to said spindle, and means connecting said bowl and spindle for effecting positive rotation of the bowl with the spindle in all of its positions thereon.

1,417,559. FIRE EXTINGUISHER. GEORGE T. PEARSONS, New York, N. Y. Filed Mar. 29, 1915. Serial No. 17,878. 28 Claims. (Cl. 169—27.)



1. A portable sprinkler fire extinguisher comprising in combination a reservoir to contain extinguishing liquid and having a discharge outlet; a gas generator in said reservoir having an outlet leading into the reservoir, said generator having means therein to normally maintain gas generating material in a separated condition, and said means having a part to extend to the exterior of the reservoir and discharge the liquid from the reservoir therethrough; and fusible means with which said extending portion engages to position said part within the reservoir and with the connected means in the generator in position to maintain the gas generating materials in a separated condition, and the fusing of said fusible means permitting said means to move and the gas generating materials to mix in the generator.

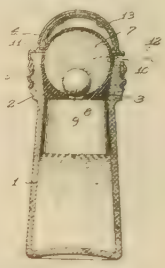
1,417,560. ANTISKIDDING DEVICE. WILLIAM H. PENDLETON, Washington, D. C. Filed Mar. 18, 1922. Serial No. 544,909. 1 Claim. (Cl. 152—14.)



An anti-skidding device comprising flexible side members, cross members connecting the same and adapted to extend over the tread of a wheel, a securing member carried by an end of each of the side members, an eye member carried by the opposite end portion of each of the side members, said eye member having side arms of a length and spaced apart a distance to permit the ready insertion through the eye member of the securing member at the opposite end of the side member through the eye member, and a roller carried by the outer portion of the eye member and interposed between the outer extremities of the side arms, the end cross member adjacent the securing members being positioned a material distance inwardly of the securing members, the end cross members adjacent the eye member being in close proximity thereto.

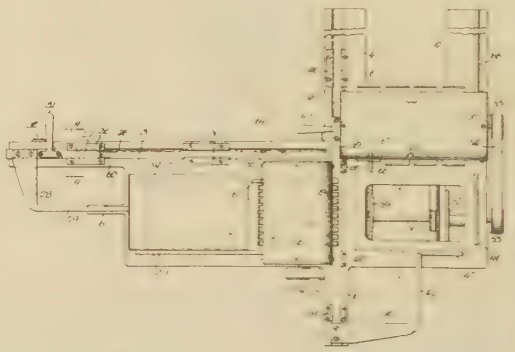
1,417,561. CONTAINER FOR STERILE LIQUIDS. GUSTAF A. PERSSON, Mount Clemens, Mich., assignor to The Persson Laboratories, Mount Clemens, Mich., a Corporation of Michigan. Filed Nov. 5, 1921. Serial No. 513,214. 5 Claims. (Cl. 215—47.)

1. A device for dispensing sterile liquids comprising a container, a stopper for the container consisting of a material adapted to permit the introduction therethrough of a hypodermic needle, and a cap for said stopper having



an antiseptic lining therein in contact with said stopper when the cap is in closed position.

1,417,562. CUTTING MACHINE. FRANK M. PETERS and WARREN H. HUNGERFORD, Chicago, Ill., assignors to Peters Machinery Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 2, 1920. Serial No. 348,908. 7 Claims. (Cl. 146—12.)



1. In a device of the class described, the combination of a frame having two spaced sets of cutting devices, a holder for material to be operated on, and independently operable propelling means for moving the holder through each set of cutters.

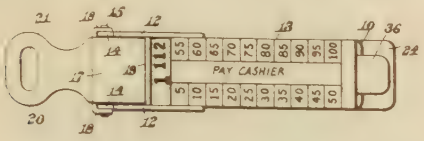
1,417,563. HINGE STRUCTURE. EDWARD H. PHIPPS, Cincinnati, Ohio. Filed Sept. 25, 1919. Serial No. 326,166. 2 Claims. (Cl. 16—11.)

1. A device of the class described comprising two sections, similar marginal portions of the sections being provided with knuckles adapted to intermesh when the sections are closed one with respect to the other, pintles insertable through the knuckles from opposite sides, and means for locking said pintles in working position.

1,417,564. CHECK HOLDER AND PUNCH. THOMAS R. F. POTTER, Brooklyn, N. Y. Filed May 11, 1921. Serial No. 468,793. 15 Claims. (Cl. 164—119.)

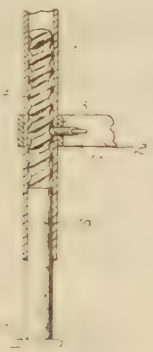
1. In a device of the class described, the combination of a rigid support for a pad of checks; a member movable relatively to said support and having an opening therein; and an immovable punch secured to said support

and always positioned in said opening in all positions of said movable member, said punch having shearing edges



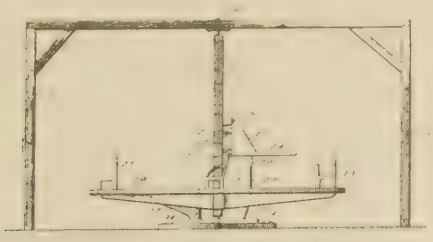
normally above said movable member, but adapted to coact with the edges of said opening when said member is moved toward said support.

1,417,565. MOTORMAN'S STOOL. JAMES S. RALPH, Sullivan, Mo. Filed Sept. 8, 1921. Serial No. 499,263. 1 Claim. (Cl. 155—88.)



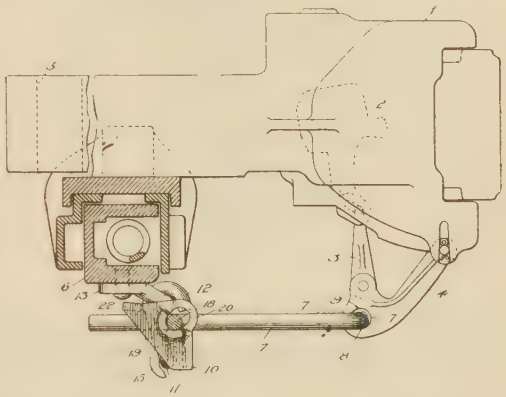
A stool comprising a seat, a supporting frame therefor, and a plurality of springs interposed between said seat and supporting frame, said frame comprising a plurality of tubular legs, a disc secured to the upper ends of the legs, an extension screw positioned in the lower end of each of said legs and independently operable to adjust the length of the leg, a thumb screw traversing each leg and adapted to cooperate with the threads of the extension screw to secure the same in place or to effect a slight adjustment of the extension screw on turning thereof after loosening the thumb screw.

1,417,566. AMUSEMENT DEVICE. JOSEPH MONTGOMERY REALING, Daytona, Fla. Filed June 29, 1921. Serial No. 481,267. 5 Claims. (Cl. 46—27.)



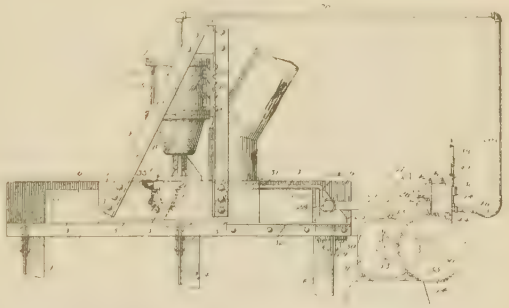
2. An amusement device of the character described comprising in combination a vertical shaft, means for rotatably supporting said shaft, a turntable carried by said shaft, a seat supported upon said turntable, a lever arm pivoted at its one end to said shaft and adapted to be swung radially of the shaft by an occupant of the seat, a bar having its one end pivotally connected to said lever arm and its free end pointed, said bar depending from the lever arm, and a track disposed beneath the turntable, said track being of relatively soft material and with which the pointed end of the bar is adapted to engage whereby said bar will serve as a stop for swinging movement of the lever arm in one direction and thereby permit the propelling of the shaft and turntable by the occupant of the seat upon oscillating said lever arm.

1,417,567. UNCOUPLING MECHANISM. WILLIAM J. REGAN, Pittsburgh, Pa., assignor to The McConway & Torley Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 6, 1921. Serial No. 505,684. 11 Claims. (Cl. 213—59.)



1. In an uncoupling mechanism, the combination with a car coupler and its lock, of means for moving said lock to unlocked position, said means involving a rotatable member operatively connected to said lock and extending rearwardly therefrom, means supportingly engaging and adapted to actuate said rotatable member, and swinging means pivotally connected to said actuating means below said rotatable member.

1,417,568. MOLDING MACHINE. THOMAS A. REYNOLDS, Crafton, Pa., assignor to The McConway & Torley Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 24, 1921. Serial No. 455,023. 14 Claims. (Cl. 22—42.)

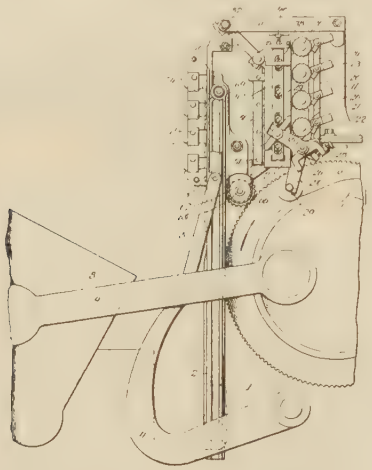


1. In a molding machine, the combination with mold box supporting means, of a series of mold boxes slidably supported on said means, reciprocating means adapted to engage successive mold boxes to effect an intermittent shifting thereof upon said supporting means, stationary means for supplying sand to successive mold boxes, means movable with said reciprocating means for controlling the supply of sand from said sand supplying means, and means for pressing the sand in successive mold boxes.

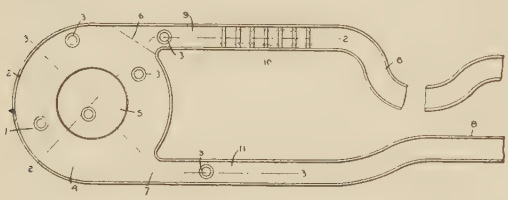
1,417,569. MULTICOLOR-PRINTING PRESS. CHARLES A. RICHARDS, Chicago, Ill., and MABEL M. RIESTER, Buffalo, N. Y. Filed Sept. 4, 1917. Serial No. 189,440. 14 Claims. (Cl. 101—194.)

1. A multi-color printing press having a plurality of sets of ink fountains each set containing a plurality of

individual fountains, a plurality of sets of printing forms corresponding to the number and arrangement of fountains, an ink distributing system individual to each set of fountains, and selecting means for selectively causing the transfer of ink from said systems to said forms.



1,417,570. AMUSEMENT DEVICE. HERBERT N. RIDGWAY, Winthrop, Mass. Filed Feb. 11, 1920. Serial No. 357,873. 8 Claims. (Cl. 46—27.)

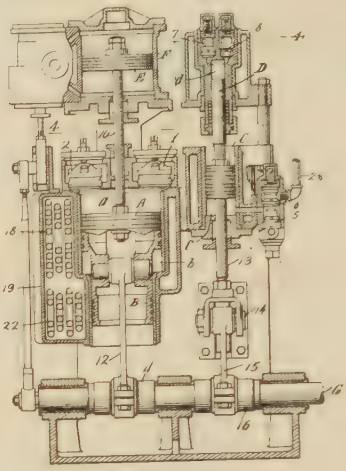


3. In an amusement device, the combination with an enclosure having a car-exit opening, of a plurality of cars within said enclosure, each adapted to travel in any direction, means within the enclosure constructed to act on any car which may occupy a predetermined portion of the enclosure to positively propel said car in an indeterminate direction whereby there is always a possibility that any car may be propelled through said exit opening, and means to receive a car thus propelled through the opening and conduct it away from the opening.

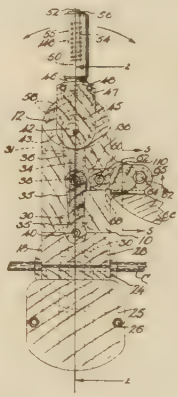
1,417,571. AIR COMPRESSOR. MICHAEL RIESNER, Cincinnati, Ohio, assignor to Worthington Pump and Machinery Corporation, a Corporation of Virginia. Filed Apr. 13, 1920. Serial No. 373,611. 9 Claims. (Cl. 230—32.)

1. In an air compressor, the combination with a two-throw crank shaft, of a differential piston and chambers forming the first and second stages of the compressor, a steam cylinder arranged above and having its steam piston connected directly to said differential piston, and one or more cylinders and pistons forming a higher stage or stages of the compressor arranged at the side of the steam cylinder and differential piston and connected to the crank shaft by a single crank.

8. In an air compressor, the combination with a differential piston and chambers forming the first and second stages of the compressor, of a cooling chamber forming an extension of the jacket space of the cylinder and cooling coils for the first and second stages arranged one above the other in said chambers, one or more cylinders and pistons forming a higher stage or stages mounted on the crank shaft in line with the differential piston, a cooling chamber extending vertically along the higher pressure cylinder or cylinders, and a cooling coil or coils for the higher stage or stages in said cooling chamber.

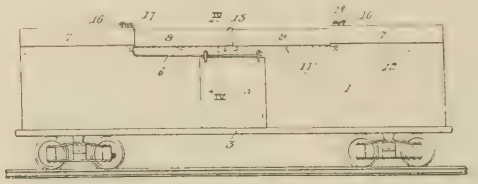


1,417,572. AERIAL TRAMWAY GRIP. EDWARD H. SACKETT, Arvada, Colo. Filed Mar. 10, 1921. Serial No. 451,320. 4 Claims. (Cl. 104—218.)



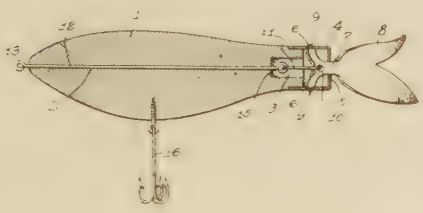
1. An aerial tramway grip comprising a block, a pair of cable-engaging jaws on said block, one of said jaws being movable on the block, a toggle connected at one end with the movable block, and means to move the toggle to move the block, the other end of the toggle being pivoted on an adjustable pin whereby the clamping position of the movable jaw may be adjusted.

1,417,573. ROOF CONSTRUCTION FOR FREIGHT CARS. PAUL SALATA, Natrona, Pa. Filed Sept. 22, 1921. Serial No. 502,354. 5 Claims. (Cl. 105—377.)



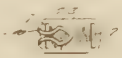
1. A freight car comprising a body having fixed end roof sections and central slidable roof sections mounted on the car body and adapted when in open position to underlie the fixed end roof sections.

1,417,574. ARTIFICIAL FISH BAIT. WILLIAM SCHMID, Bronson, Mich. Filed July 14, 1921. Serial No. 484,622. 5 Claims. (Cl. 43—46.)



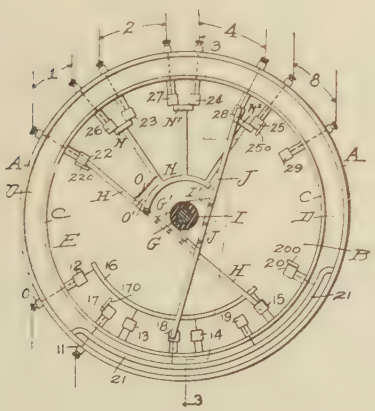
2. An artificial bait having a pivoted tail piece, with a defined lateral movement, and a line member axially of said bait and loosely attached to said tail piece between its plane of pivot and the rear end of said tail piece and adapted for shifting said tail piece.

1,417,575. SLIDE FOR RIBBON WATCH GUARDS. CHARLES H. SHERMAN, North Attleboro, Mass. Filed July 17, 1920. Serial No. 397,023. 1 Claim. (Cl. 63—22.)



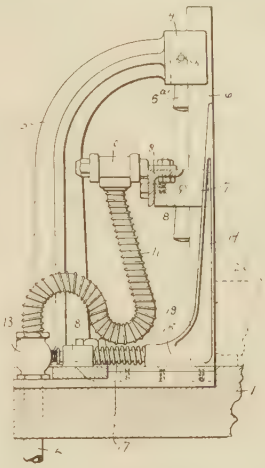
An improved slide for ribbon watch-guards comprising an ornamental panel having slits at its ends forming lateral cross-bars to adapt the ribbon to be passed over said bars through the slits and in back of the panel, one of said cross-bars being provided with a clasp-member extending therefrom and bent around to overlie the back of the panel in spaced relation to the ribbon passing thereacross, said clasp being adapted for insertion under the edge of the wearer's waistcoat or other garment to hold the slide and ribbon flat thereagainst while allowing for the adjustment of the ribbon through the slide.

1,417,576. MULTIPOLAR SWITCH. PAUL SIBLEY, Worcester, Mass. Filed Mar. 26, 1921. Serial No. 455,907. 3 Claims. (Cl. 200—5.)



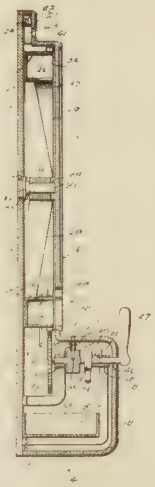
1. An electric switch having two series of contacts arranged in pairs, two distributer, bars co-operating therewith, and a contact piece carried by one of the distributer bars for connecting the contacts of each pair.

1,417,577. CORE-MAKING MACHINE. OLOF SKEPPSTEDT, Moline, Ill. Filed Sept. 13, 1920. Serial No. 409,985. 6 Claims. (Cl. 22—56.)



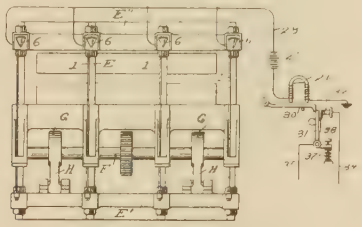
6. A device of the class described, comprising a table; a core-box movably supported on said table; vibratory devices normally inoperative, rigidly supported on said table, and means, whereby a limited lateral movement of said box will cause said vibratory devices to operate.

1,417,578. VENDING MACHINE. GOODWIN B. SMITH, Philadelphia, Pa., assignor to The Junoform Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 16, 1920. Serial No. 431,249. 1 Claim. (Cl. 211—8.)



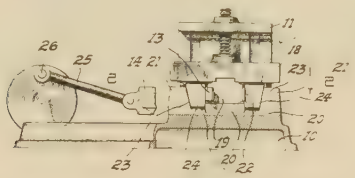
A vending machine of the character described comprising, an upstanding casing provided upon its forward face and in its lower portion with a main opening which is wholly unobstructed and a finger opening at one side of the main opening and in free communication with such main opening, said finger opening being entirely unobstructed, a rotatable carrier held within the casing and embodying an annular set of pockets adapted to receive articles arranged horizontally therein, each pocket having its rear end closed and its forward end open and wholly unobstructed and adapted for movement into registration with the main opening, each pocket being provided upon one side with a finger opening in communication with the interior of the pocket and adapted for registration with the first named finger opening, the finger opening in the pocket being disposed wholly within said casing, and means to turn the carrier.

1,417,579. TENSION INDICATOR FOR DRAWING PRESSES. REUBEN STANLEY SMITH, Milwaukee, Wis., assignor to A. O. Smith Corporation, Milwaukee, Wis., a Corporation of New York. Filed Apr. 7, 1919. Serial No. 288,084. 21 Claims. (Cl. 192—116.)



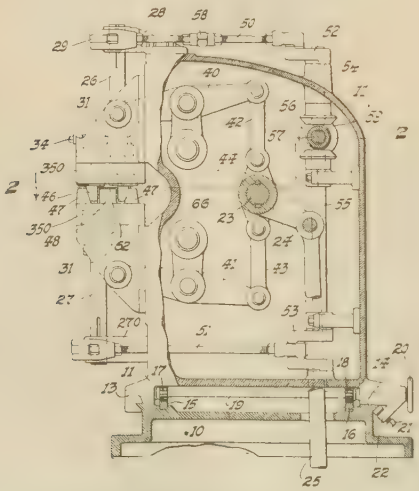
1. The combination with a pressure applying carrier, a driving motor operatively connected to transmit power to the carrier, an indicator rod mounted upon the power receiving end of the carrier, an index gauge mounted upon the working end of the carrier, a pointer in operative relation to the gauge and controlled as to its movement by the indicator rod, and a mechanism controlled by said indicator rod for unclutching the motor.

1,417,580. LAPPING MECHANISM. REUBEN STANLEY SMITH and THORVALD HANSEN, Milwaukee, Wis., assignors to A. O. Smith Corporation, Milwaukee, Wis., a Corporation of New York. Filed July 26, 1920. Serial No. 399,214. 17 Claims. (Cl. 153—25.)



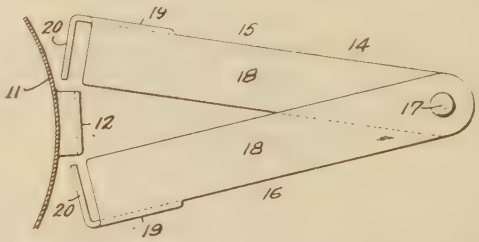
1. A mechanism for bending the projecting ends of a flanged cross bar, comprising means for clamping the bar at the bending line, and means operating upon the said projecting ends to turn the latter about said bending line and into angular positions with relation to the longitudinal axis of the cross bar.

1,417,581. LAPPING PRESS. REUBEN STANLEY SMITH and THORVALD HANSEN, Milwaukee, Wis., assignors to A. O. Smith Corporation, Milwaukee, Wis., a Corporation of New York. Filed July 26, 1920. Serial No. 399,215. 27 Claims. (Cl. 153—16.)



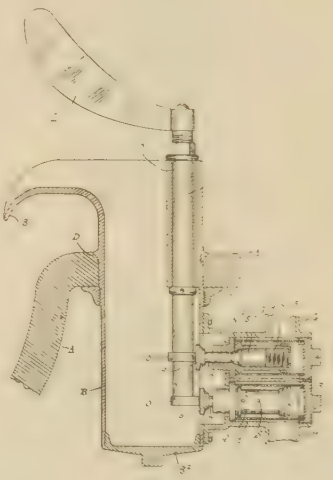
1. A lapping press for bending the projecting ends of the flanges of a channeled bar, including means for supporting the bar, clamping jaws movable toward and from each other to engage the side flanges of a channel bar carried by said support, a pair of rotatable shafts each having a lapping die adapted to bear against the projecting end of one of the flanges, the axis of each shaft being in substantial alignment with the bending line of the said projecting end, and means for simultaneously actuating said shafts to turn the projecting ends of said flanges from their initial planes.

1,417,582. CULINARY VESSEL. THEODORE D. C. SMITH, South Porcupine, Ontario, Canada. Filed Sept. 10, 1921. Serial No. 499,750. 8 Claims. (Cl. 53—7.)



2. In combination with a vessel having an eye thereon a removable handle comprising a pair of pivotally connected arms, and transversely disposed claws on said arms adapted for engagement with the vessel eye and disposed at such distances from the handle pivot that they will assume overlapping relation in closed position of the handle.

1,417,583. LAVATORY FIXTURE. WILLIAM B. STRATTON, Detroit, Mich. Filed Aug. 27, 1921. Serial No. 495,924. 7 Claims. (Cl. 4—24.)

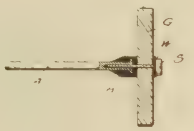


1. The combination with a bowl or other receptacle, of an open top auxiliary receptacle provided with a discharge lip overhanging said first-mentioned receptacle, and means for admitting hot and cold water into the lower portion of said auxiliary receptacle and controlling means operable from the top thereof.

1,417,584. MANDREL FOR ABRASIVE AND POLISHING TOOLS. HERMAN FREDERICK STEMPEL, Jr., Fort Madison, Iowa. Filed Jan. 13, 1921. Serial No. 436,995. 9 Claims. (Cl. 32—13.)

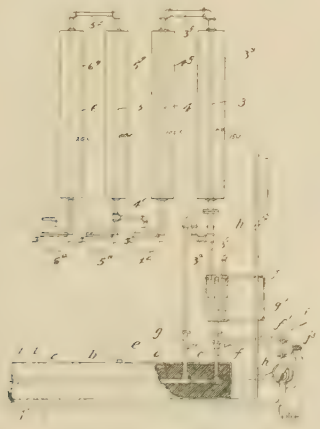
1. A mandrel comprising, in comination, an arbor bored at one of its ends, a head of irregular outline formed

on the bored end of the arbor, a cushioning sleeve embracing the bored end of the arbor and said head, a



clamping screw threadedly fitted within the bore of the arbor, and a resilient washer mounted on the shank of said screw.

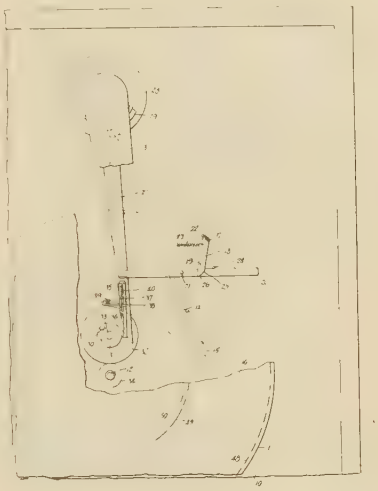
1,417,585. APPARATUS FOR USE IN CONNECTION WITH CHEMICAL AND PHYSICAL OPERATIONS. ALEXANDER THOMAS STUART and GUY NOVERRE MIDDLETON, Toronto, Ontario, Canada, assignors to The Toronto Power Company Limited, Toronto, Ontario, Canada, a Corporation of Ontario. Filed July 5, 1917, Serial No. 178,702. Renewed Dec. 27, 1920. Serial No. 433,425. 11 Claims. (Cl. 204—31.)



1. An apparatus for use in connection with chemical and physical operations requiring high temperatures and pressures, comprising a closed reaction chamber whose wall is of material having high electrical resistance, an intake and an offtake therefor, electrical conductors establishing a circuit through the wall of the reaction chamber to create the desired reaction temperature, and pressure resisting means surrounding the reaction chamber to support it against internal pressure.

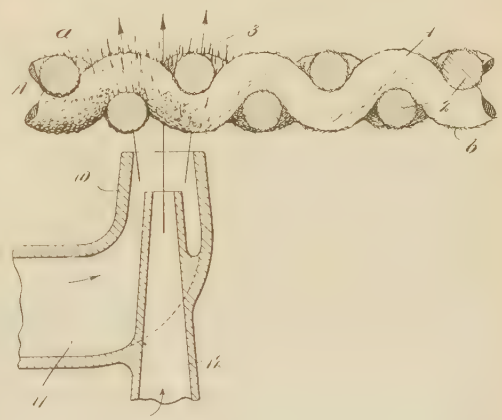
1,417,586. NONSET AUTOMATIC STOP FOR PHONOGRAPHS. GEORGE H. TAGGART, Port Washington, N. Y. Filed Dec. 7, 1920. Serial No. 428,953. 6 Claims. (Cl. 192—116.)

1. In a non-set stop for phonographs, the combination with a rotating member and a reproducing device movable during the normal playing of the record in a predetermined direction over the rotating member, of an automatic brake, means to cause the reproducing device to cooperate with the automatic brake as the end of the record is approached, and a safety device to prevent the premature setting of the brake device, said safety device including a member acted upon by the rotating member aforesaid during the preliminary turns thereof, to cause



the withdrawing of the safety device out of its position to permit subsequently the intended operation of the brake device.

1,417,587. METHOD OF CLOTH FINISHING AND PRODUCT THEREOF. FRANCIS W. TULLY, Chestnut Hill, Mass. Filed Apr. 19, 1920. Serial No. 374,928. 30 Claims. (Cl. 91—68.)

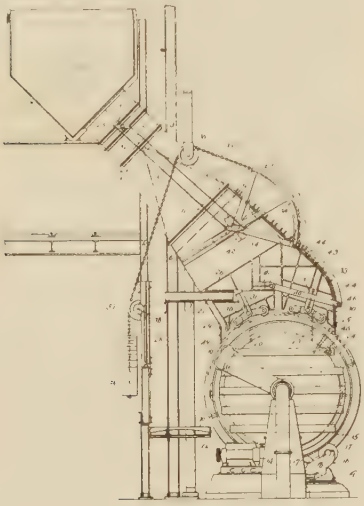


1. The art of treating textile fabrics comprising as a step providing an artificial integument for discrete fibres of the structural yarns of the fabric by evaporation of a sparingly applied limpid solution containing an elastic horny substance and an excess of solvent, and avoiding matting or adhesion of the fibres together.

1,417,588. CONVERTER HOOD. CHARLES VAN AMBURGH, Tacoma, Wash., assignor to American Smelting & Refining Company, a Corporation of New Jersey. Filed July 21, 1917, Serial No. 181,968. Renewed Sept. 26, 1921. Serial No. 503,383. 28 Claims. (Cl. 22—23.)

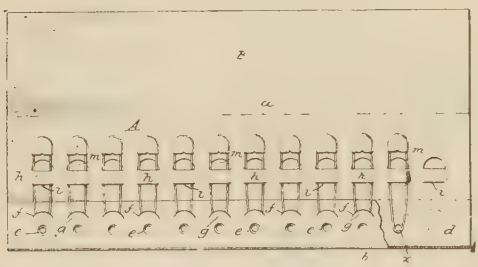
1. In a device of the class described, the combination of a revolvable cylindrical converter shell mounted with its longitudinal axis of rotation horizontally disposed, a curved closure plate having its center of curvature substantially coincident with said axis of rotation and

spaced from the shell, a converter stack projecting laterally from said shell and extending through said plate



and a hood having a lower end engaging said plate and positioned to receive the gases discharged from the shell through the converter stack.

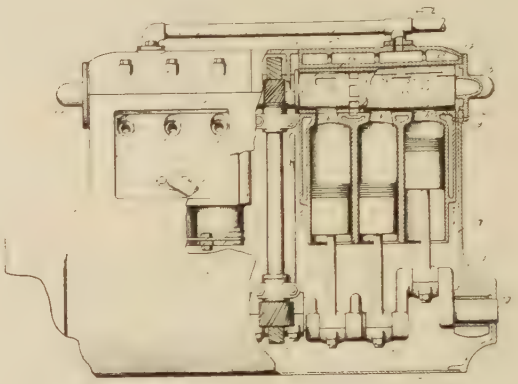
1,417,589. SAFETY-PIN CARD OR PACKAGE. JINDŘICH WALDES, Prague, Bohemia. Filed Aug. 21, 1919. Serial No. 318,946. 3 Claims. (Cl. 206—66.)



1. A holder for safety pins made of flexible material folded to form a body portion and a part turned over upon the body portion to provide a pocket for the coiled ends of the pins, the body portion of the holder being slitted to form a series of loops through which the pins extend and the pocket portion being slitted to receive the coiled portions of the pins.

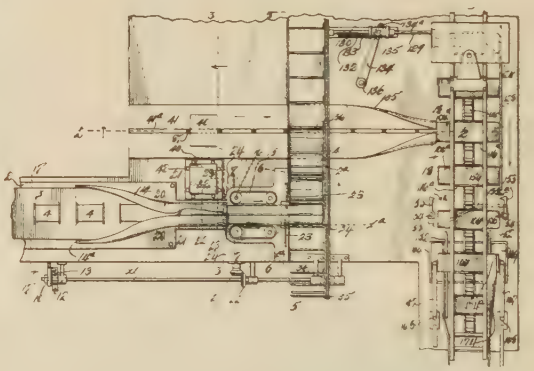
1,417,590. ENGINE VALVE. JOHN R. WARREN and ALFRED BRECHTING, Grand Rapids, Mich., assignors to John R. Warren, Grand Rapids, Mich., Donald J. Campbell, Muskegon Heights, Mich., Charles E. Johnson, Paul R. Beardsley, and Carl P. Damm, all of Muskegon, Mich., trustees. Filed July 3, 1920. Serial No. 393,881. 3 Claims. (Cl. 123—59.)

2. In an engine; a frame; a cylinder longitudinally movable relatively thereto; a rotary-valve casing comprising a portion supported in connection with the frame and another portion supported in connection with the cylinder and having a port communicating with the cylinder; a bushing, between the valve and valve casing, extending over the adjacent parts of said portions of the valve casing and having an opening registering with said port and having a series of axially-extending slits disposed end to end and a second series of axially-extending slits disposed end to end, the slits of one series being staggered relatively to those of the other series and



extending beyond the ends of the slits in said other series; a valve rotatable in said casing and adapted to open and close said port.

1,417,591. MEANS FOR WRAPPING AND PACKING ARTICLES. ERNEST D. ANDERSON, Long Beach, N. Y., assignor to E. D. Anderson, Inc., New York, N. Y., a Corporation of New York. Filed June 24, 1916. Serial No. 105,628. 29 Claims. (Cl. 93—2.)

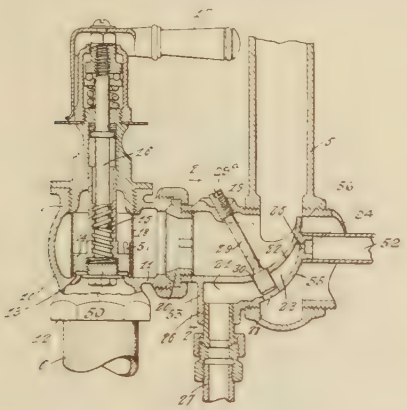


1. An apparatus of the class described comprising means to assemble wrappers and articles together, means to fold the wrappers around the articles after they are assembled, means to sever the wrappers between articles thereon, and means to charge such wrapped articles into cartons.

1,417,592. RADIATOR VALVE. GEORGE H. BUGENHAGEN, Minot, N. Dak. Filed May 13, 1919. Serial No. 296,765. 3 Claims. (Cl. 257—159.)

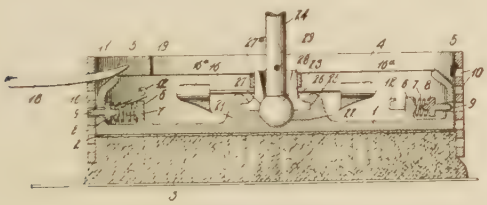
2. In a device of the class described, a tubular connection provided with a retarder, and a trough-shaped conduit for the water of condensation, the conduit being carried by the retarder and the connection being joined at its upper end to the retarder whereby the conduit will be heated by conduction directly from the retarder, the conduit having an outlet, and being provided in its lower

portion with an inlet for the water of condensation; a valve controlling the passage of steam through the con-



nection; and a second valve extended transversely of the connection and the conduit and mounted therein, the said valve controlling the inlet for the water of condensation.

1,417,593. APPARATUS FOR POLISHING PLANE SURFACES. JOHN M. CHRISTINE, Ford City, Pa. Filed Mar. 23, 1921. Serial No. 454,614. 9 Claims. (Cl. 51—195.)



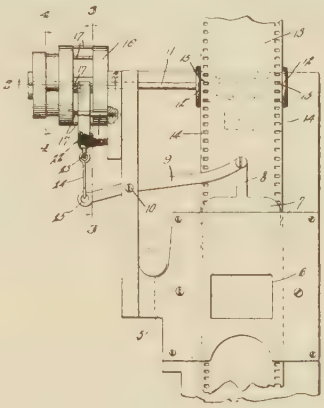
1. In an apparatus for polishing plane surfaces, a plate, a flange rising from the peripheral edge of one side of the plate, a polishing pad attached to the opposite side of the plate, and an adjustable compression member loosely engaging the flange on the plate and bindingly engaging the pad whereby to retain the pad and expose additional portions of the same to compensate for wear.

1,417,594. TOBOGGAN AND SLIDE. EDWARD COE, Battle Creek, Mich. Filed Mar. 20, 1922. Serial No. 545,283. 5 Claims. (Cl. 104—69.)

3. In a device of the class described, a slide embodying rails; and a vehicle having runners traversing the rails, the runners and the rails being provided with spaced ice pockets.

1,417,595. SHUTTER LIFT. HOMER HOLT DANIELS, Oswego, Kans. Filed Sept. 8, 1921. Serial No. 499,247. 1 Claim. (Cl. 88—17.)

In combination with the guide roller and safety shutter of a moving picture apparatus, a shaft for supporting the roller, a wheel including spaced disks, supported on the shaft, rods having connection with the disks, an operating arm associated with the wheel and adapted to be engaged by the rods to move the arm, an actuating arm having connection with the shutter, means for connecting the operating arm and actuating arm, whereby movement of

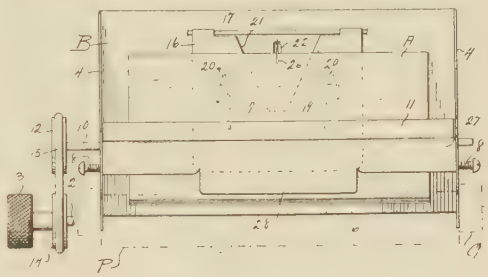


the wheel produces a relative movement of the arm to open or close the shutter, and spring means for moving the wheel in one direction.

1,417,596. INDESTRUCTIBLE GOLD-LEAF CHARACTER AND METHOD FOR PREPARING THE SAME. ANDREW DEVORE, New York, N. Y. Filed Nov. 29, 1920. Serial No. 427,014. 2 Claims. (Cl. 41—37.)

1. The process for the production of an indestructible character which consists in treating a sheet of celluloid with a sizing, then applying gold leaf to the sizing while wet, then giving the sheet a quick bath in hot water, and finally applying a protective coating on top of the gold leaf.

1,417,597. PAPER-FEEDING DEVICE. PAUL A. GALLIEN, Shattuck, Okla. Filed May 23, 1921. Serial No. 471,656. 4 Claims. (Cl. 197—130.)



1. A feeding device of the class described comprising a member adapted to be mounted upon the carriage of a typewriter, a feed roller carried by said member, a follower plate carried by said member and having a marginal portion extending beyond the roller, means for constantly urging said follower plate upwardly and toward the roller, and a penetrating member carried by the first named member and adapted to be disposed through a paper pile superimposed upon the follower plate, the portion of the follower plate remote from the feed roller being provided with a recess, the penetrating member being positioned in a field of the first named member defined by said recess in the follower plate.

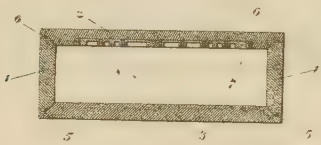
1,417,598. COUPLING OPERATING MECHANISM. ENOCH GEORGE, Jr., Pittsburgh, Pa., assignor to The McConway & Torley Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 18, 1920. Serial No. 417,799. 8 Claims. (Cl. 213—59.)

1. In mechanism of the character indicated, the combination with a laterally movable car coupler, of means

for shifting said coupler laterally, said means involving a lever device, means operatively connecting said lever device and coupler, and a fulcrum for said lever device rigidly mounted on the car, said fulcrum affording a

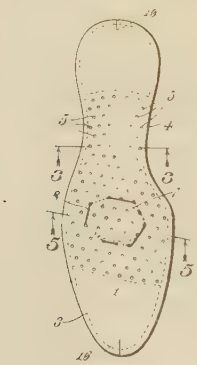
plurality of fulcrum points with any of which said lever device may selectively engage to shift said coupler laterally in either direction, and said lever device and fulcrum normally being in interengaging relation for effecting lateral shifting of said coupler.

1,417,599. MOLD AND METHOD FOR FORMING MONOLITHS. ROBERT F. GRADY, St. Louis, Mo. Filed June 1, 1920. Serial No. 385,617. 5 Claims. (Cl. 25—121.)



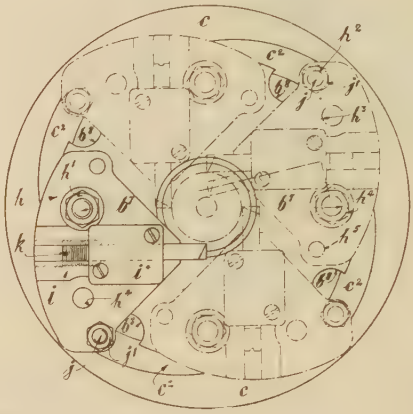
4. A mold, including a wall having a recess in the inner face thereof, solid blocks carrying character forming matrices, and yieldable material for filling said recess and holding said blocks within said recess.

1,417,600. ARCH SUPPORT. LUDWIG GUTMANN, St. Louis, Mo. Filed June 11, 1917. Serial No. 174,017. 8 Claims. (Cl. 36—71.)



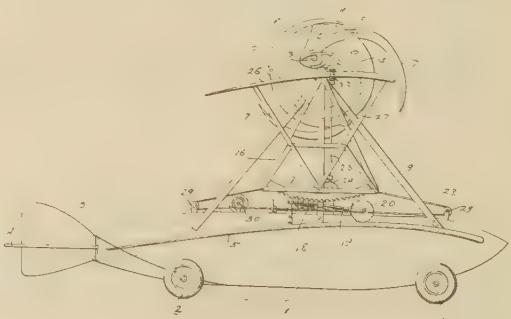
1. An arch support, comprising, an inner sole having an unrestricted pad-receiving surface, a pad adapted for unrestricted, universal adjustment over said surface, and lacing means adapted to secure said pad against shifting.

1,417,601. DIE HEAD OF SCREW-CUTTING MACHINES. CLAUDE WILLIAM HARRIS, Levenshulme, Manchester, England. Filed Apr. 17, 1920. Serial No. 374,775. 3 Claims. (Cl. 10—100.)



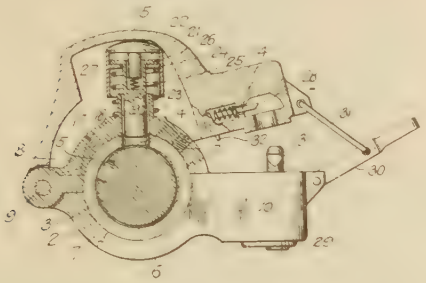
1. A rotary die head suitable for cutting both right and left hand screw threads comprising a hollow spindle, a holder carrier plate rigidly attached to the spindle, a series of die holders each formed with two pivot bearings to right and left of the tool respectively, a stud to connect each die holder to the holder carrier, a slotted cam ring rotatably mounted on the spindle, a projection at the rear of each die holder capable of being attached to one of two positions thereon and means to impart rotary movement to the cam ring, the arrangement being such that each die holder can be swivelled to positions to right and left of a line drawn through the axis of the die head and the pivot of the holder, and each also adapted to hold a die or chaser and allow of such die or chaser being reversed, substantially as herein set forth.

1,417,602. FLYING MACHINE. AUGUST P. HEDBERG, Milford, Mass. Filed June 9, 1919. Serial No. 302,871. 2 Claims. (Cl. 244—13.)



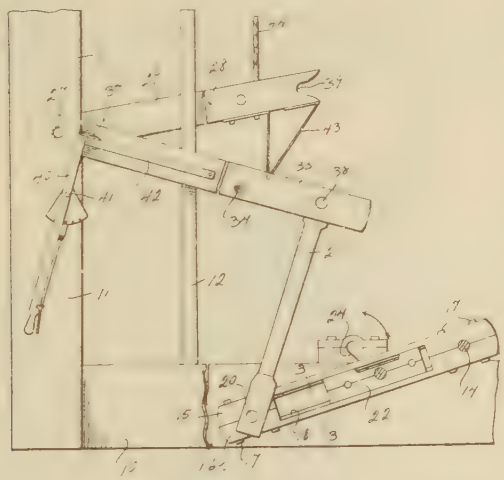
1. In an aeroplane, a body, a superstructure, and a horizontal shaft supported by said body, rotary plates and overlapping curved wings pivoted intermediate their ends adjacent the periphery of said plates, rollers carried by the inner ends of each of said wings, cam tracks for said rollers and means for adjusting said tracks for varying the effective air engaging surfaces of the wings during their revolution.

1,417,603. AUTOMOBILE LOCK. ORVILLE SCOTT HERSHEY, Denver, Colo., assignor to Hershey Manufacturing Company, a Corporation of Colorado. Filed May 24, 1919. Serial No. 299,402. 12 Claims. (Cl. 70—90.)



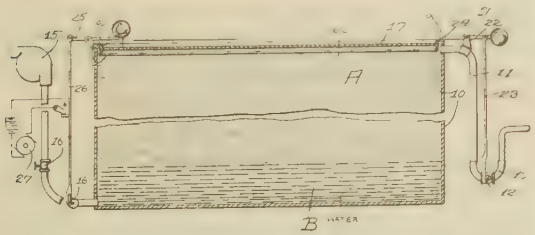
12. A device of the character described comprising a supporting member, a locking bolt thereon, an adjustable member in actuative relation to the locking bolt, and a relatively stationary lock for securing the member in its adjusted position.

1,417,604. COMPOUND WALKING BEAM FOR WELL-DRILLING RIGS. ROBERT W. JAMISON, Mitchell, S. Dak. Filed July 24, 1920. Serial No. 398,667. Renewed Oct. 29, 1921. Serial No. 511,450. 12 Claims. (Cl. 255—11.)



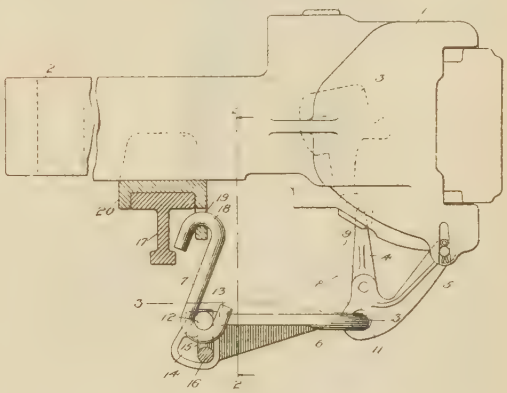
1. A construction of the character described including a constantly reciprocated pitman, a walking beam with which said pitman is adapted to engage at one end, and means for shifting the last named end of the pitman into or out of engagement with the end of the walking beam.

1,417,605. MEANS FOR PREVENTING OIL-TANK FIRES. ROBERT E. JOHNSTON, Congo, W. Va. Filed Nov. 13, 1920. Serial No. 423,919. 3 Claims. (Cl. 220—88.)



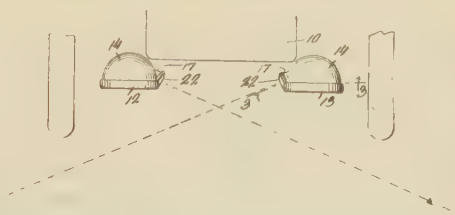
2. The combination with an oil tank, of a disk-like cover having an area slightly less than the area of the oil tank and floating at all times on the oil tank, an oil pipe leading from the upper portion of the tank, a water pipe discharging at the bottom of the tank, valves in the oil pipe and water pipe, means automatically opening the valves in the oil pipe upon an ignition of the oil in the tank, and means for opening the valve in the water inlet pipe including a disk actuated member shifted to a position to open the valve upon a downward movement of the disk.

1,417,606. UNCOUPLING MECHANISM. WILLIAM KELSO, Pittsburgh, Pa., assignor to The McConway & Torley Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 6, 1921. Serial No. 505,723. 22 Claims. (Cl. 213—59.)



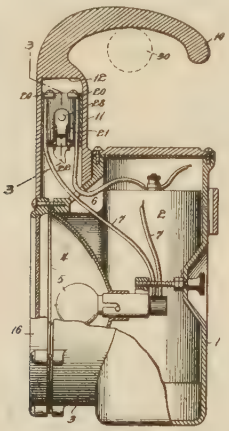
1. In an uncoupling mechanism, the combination with a car coupler, its lock and carrier iron, of means for moving said lock to unlocked position, said means involving a rotatable member operatively connected to said lock and extending rearwardly therefrom, an uncoupling lever, and means for swingingly supporting the rear end of said rotatable member from said carrier iron, said supporting means being adapted to swing lengthwise of the car in response to lengthwise bodily movement of said rotatable member during its unlocking rotation, and said rotatable member being interposed between said uncoupling lever and said supporting means.

1,417,607. HEADLIGHT. FRANKLIN S. KERN, Libertyville, Ill. Filed Oct. 16, 1920. Serial No. 417,368. 1 Claim. (Cl. 240—46.)



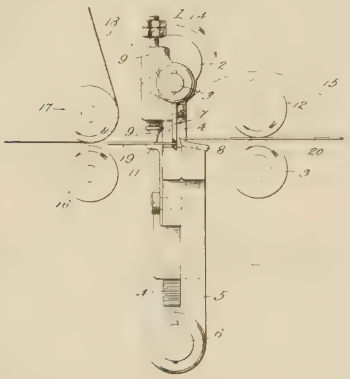
In combination, a support, a pair of headlights mounted on the support in spaced relation to each other, each headlight comprising a main casing, a reflector, a source of light, and a window, and a side lamp comprising a casing formed integral with the casing of the headlight, a source of light, a reflector and a window for the side lamp, the plane of the window and the side lamp being disposed at an angle to the plane of the window of the main lamp and the windows of the side lamps being disposed so as to be adjacent each other and in one of the lower quadrants of the window of the main lamp.

1,417,608. HANDLE FOR LANTERNS. JAMES W. KNOBLOCK, New York, N. Y., assignor to American La France Fire Engine Company, Inc., Elmira, N. Y., a Corporation of New York. Filed Oct. 28, 1920. Serial No. 420,152. 2 Claims. (Cl. 240—8.5.)



1. In a portable electric hand lantern, the combination with a casing carrying electric cells and a light bulb, of a rigid handle secured in fixed relation upon the casing and formed with a switch receiving chamber opening into the lantern casing and transverse openings communicating with said chamber, an electric switch mounted in said handle chamber adjacent to said transverse openings, wires extending from said handle chamber into said lantern casing and forming an electric circuit with said switch, cells and bulb, and a push bar switch-operating chamber mounted in said handle openings and operatably connected with said switch.

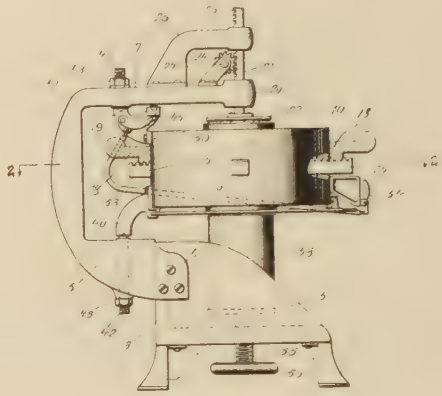
1,417,609. MACHINE FOR APPLYING MOUTHPIECE-FORMING SHEETS TO CIGARETTE-PAPER STRIPS. EWALD KOERNER, Dresden, Germany, assignor to United Cigarette Machine Co., Inc., Lynchburg, Va., a Corporation of Virginia. Filed Oct. 5, 1921. Serial No. 505,681. 10 Claims. (Cl. 131—39.)



1. Apparatus for feeding and applying mouth piece sheets to cigarette paper strips, comprising an upper unit including a cutter and a clamp, a movable feed table, means for imparting to the cutter and clamp movement both longitudinal and transverse to the line of feed, and operative connections between the upper unit and the table for transmitting longitudinal movement from said unit to the table.

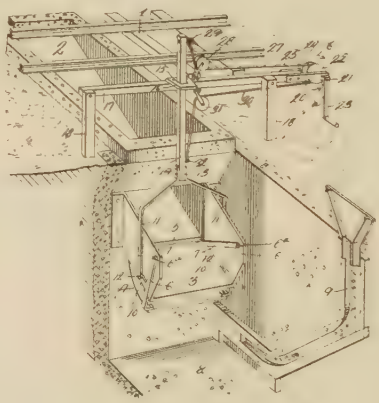
1,417,610. MEAT PRESS AND FILLER. FERDINAND KRUSE, Port Richmond, N. Y. Filed Mar. 17, 1920. Serial No. 366,647. 2 Claims. (Cl. 100—57.)

1. A meat pressing machine, comprising a base, a bracket secured to said base and comprising top and bottom horizontal members united by a vertical member, a forming device having a pair of arms projecting from one side at the top and bottom thereof, bearing elements on the horizontal members of said bracket with which said



arms are pivotally engaged, a plunger head vertically movable in the said top horizontal member, and means removably locking said forming device to said top horizontal member.

1,417,611. CHUTE-GATE-OPERATING MECHANISM. IRWIN D. LANDIS, South Bend, Ind., assignor to Universal Conveyor Co., South Bend, Ind., a Corporation of Indiana. Filed Aug. 22, 1921. Serial No. 494,268. 5 Claims. (Cl. 193—46.)

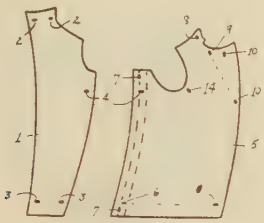


1. The combination with a chute gate having an upwardly extending bar for controlling said gate, said bar being slidably mounted in a guide, of an operating mechanism for moving said bar upwardly and downwardly, said operating mechanism comprising an operating drum spaced from the bar, a cable extending around said operating drum, pulleys adjacent said bar, the ends of said cable extending over said pulleys and connected to the operating bar at points spaced from its guide.

1,417,612. GARMENT PATTERN. JOHN LATIMORE, Utica, N. Y. Filed Mar. 15, 1920. Serial No. 365,759. 6 Claims. (Cl. 33—13.)

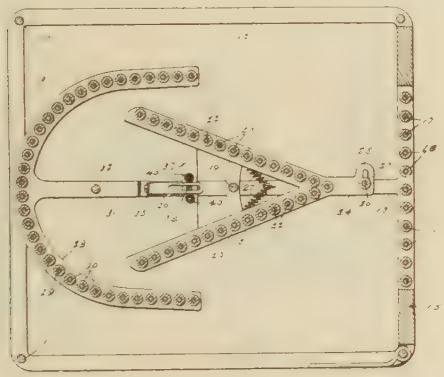
6. In a garment pattern, parts thereof representing the different pieces of a garment, perforations made in said parts within a given distance from the edge thereof, said

perforations or slots being intended for the exposure of the cloth therebelow which is located by a chalk mark, and



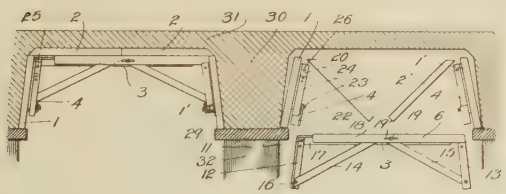
said chalk marks being adapted to indicate the proper places for fitting the pieces of a garment together.

1,417,613. PORTABLE TRENCH. MARGIL LÓPEZ, Alice, Tex. Filed Aug. 7, 1920. Serial No. 402,011. Renewed Apr. 1, 1922. Serial No. 548,797. 8 Claims. (Cl. 89—36.)



1. In a portable trench, a frame having a yieldable front comprising a plurality of gates, a yieldable projectile director member to the rear of the gates, and a yieldable projectile deflector member at the rear of the director member.

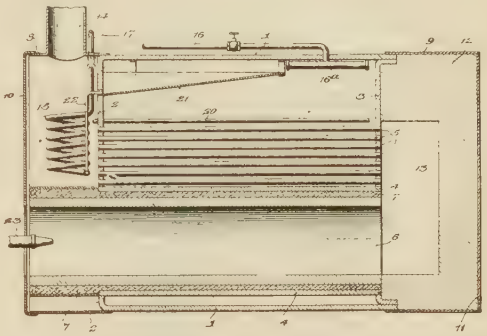
1,417,614. FLOOR-JOIST CONSTRUCTION FORM. ERNEST T. MCABEE, Kansas City, Kans. Filed May 25, 1921. Serial No. 472,487. 8 Claims. (Cl. 25—131.5.)



1. In a dome having side sections and a top section, a longitudinally adjustable truss member for supporting the top section, and a latch mechanism carried by the side sections for supporting the truss member.

1,417,615. HIGH-PRESSURE BOILER FOR TRACTION USE AND OTHER USES. THOMAS J. MCDONALD, Knoxville, Tenn. Filed Dec. 7, 1920. Serial No. 428,906. 10 Claims. (Cl. 122—470.)

1. The combination with a steam boiler and a superheater, of means for automatically supplying to the superheater, when the boiler ceases to generate steam, sufficient water to prevent injury to the superheater when the boiler is again put into operation, the amount of



such water being insufficient to do any injury to an engine connected with the boiler in case it is forced thereinto.

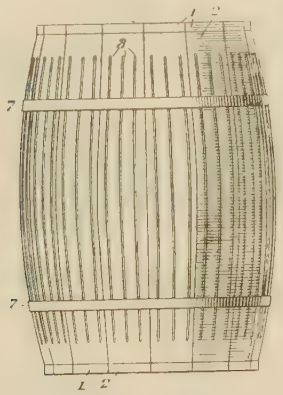
1,417,616. FISHING TOOL. ROBERT V. MCMULLEN, Eureka, Kans., assignor to The Midland Supply Company, Pawhuska, Okla., a Corporation of Oklahoma. Filed Aug. 12, 1920. Serial No. 402,962. 9 Claims. (Cl. 294—102.)

1. A fishing tool comprising a socket having a cylindrical body portion, a shoulder extending around the exterior of said body portion adjacent one end thereof and a bowl adapted to be passed over the opposite end only of the body portion, the interior of said bowl having a shouldered portion of less diameter than the diameter of the shouldered body portion of the socket whereby said shoulder on the socket forms a stop for the bowl, and means on the socket spaced from said socket shoulder for locking the bowl against longitudinal movement on the socket.

1,417,617. SHEET-METAL BARREL. JAMES W. MCNEIL, Newark, N. J. Filed Feb. 2, 1921. Serial No. 441,812. 3 Claims. (Cl. 220—75.)

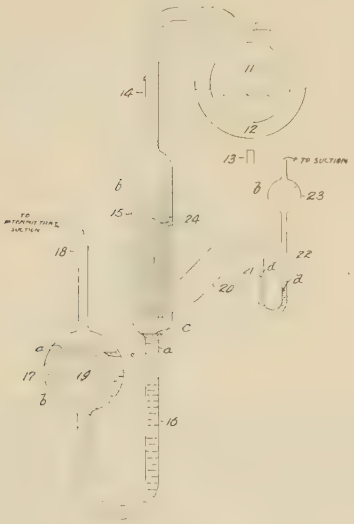
3. A barrel body comprising a plurality of sheet metal staves having chine portions and longitudinally corrugated body portions, the body portion of each stave having one edge bent inwardly and then laterally and outwardly to form a channel flange and its opposite edge bent inwardly to form a flat flange, the flat flange on each stave

being embraced by the channel flange on an adjacent stave and provided with tongues along its inner edge,



the channel flanges having slots therein through which the tongues extend, and said tongues being bent around one web of the channel flanges.

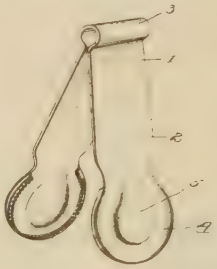
1,417,618. PROCESS OF SEPARATING AQUEOUS AND OTHER VAPORS FROM FLUIDS AND SOLIDS AND FOR PREPARING DILUTE SULPHURIC ACID. OTTO MAASS, Montreal, Quebec, Canada. Filed Apr. 15, 1918. Serial No. 228,733. 7 Claims. (Cl. 127—18.)



1. A process of drying, consisting in causing the vapors evolved from the material to be dried to contact with a desiccating surface, periodically wetting the surface with a vapor absorbing agent, by causing the agent to rise and fall over the desiccating surface, the fall of the agent creating a vacuum to expedite ratification of the vapors under treatment.

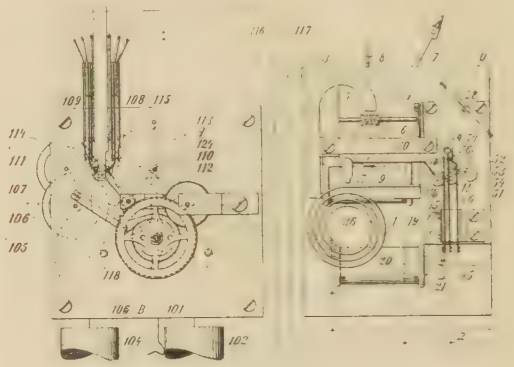
1,417,619. HOLDER FOR STEEL WOOL. HAROLD L. MALE, Brooklyn, N. Y. Filed June 14, 1921. Serial No. 477,582. 7 Claims. (Cl. 294—99.)

1. A holder for steel wool comprising integrally connected arms formed of sheet material, relatively large disc-shaped members carried by said arms, and inwardly extending teeth formed on the periphery of each disc; the



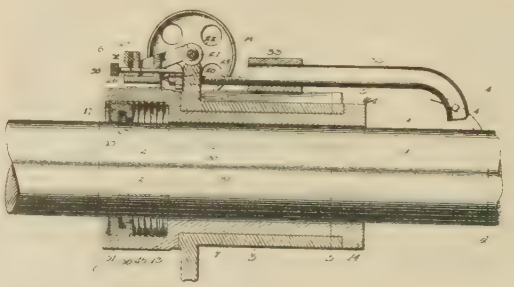
teeth of each disc extending at right angles to the plane of the disc.

1,417,620. ELECTRIC CLOCK. PAUL MANSEL, Charlottenburg, near Berlin, Germany, assignor to Siemens & Halske Aktiengesellschaft, Siemensstadt, near Berlin, Germany. Filed Aug. 15, 1918. Serial No. 250,096. 4 Claims. (Cl. 58—38.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



1. In an electric clock system in combination, a master clock and a secondary clock electrically connected with each other, means comprising a contact for driving said secondary clock from said master clock, a strike train forming part of said secondary clock and means for automatically keeping said contact closed so as to feed said strike train with current while it is operating.

1,417,621. PORTABLE LOCOMOTIVE-JOURNAL-TURNING MACHINE. CLAUDE E. MARSH, Atlanta, Ga. Filed Nov. 7, 1919. Serial No. 336,348. 7 Claims. (Cl. 82—4.)

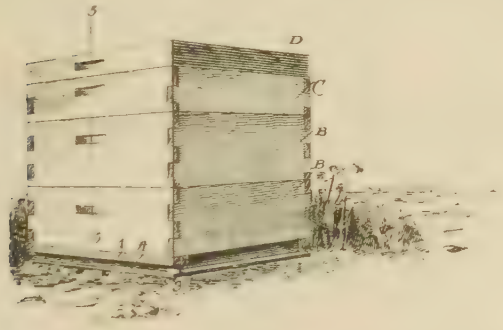


2. A journal turning machine, comprising an arbor provided with abutments and internal threads, normally retracted wedges carried by the arbor, means operating on said threads to simultaneously move all wedges into operative engagement with an axle when actuated in one direction, and a tool-carrying arbor rotatable on the first arbor between said abutments, when the first is stationarily held.

1,417,622. IRONING MACHINE. JOSEPH J. MARX, St. Louis, Mo. Filed May 9, 1921. Serial No. 467,821. 4 Claims. (Cl. 68—9.)

1. In an ironing machine, the combination with a roll for supporting and moving materials to be ironed; of a pad of uniform radial thickness, comprising a layer of felted, resilient metal shavings around the roll; and means for preventing the shavings from creeping or becoming massed when the roll operates.

1,417,623. BEEHIVE. THOMAS KELLEY MASSIE, Hatcher, W. Va. Filed Nov. 25, 1918. Serial No. 264,089. 20 Claims. (Cl. 6—1.)



1. A beehive comprising a relatively fixed bottom-board, a sectional body including a brood-chamber and super arranged to be placed on the bottom-board in either of two positions, and means located inside of the brood-chamber arranged to coact with a portion of the bottom-board to provide a dead air space when the body rests in one position on the bottom-board, and to enable the ventilation of the hive when the body is placed in the other position on the bottom-board.

3. The combination in a beehive, of a bottom-board including side rails, a brood-chamber arranged to be set on the bottom-board in either of two positions, a row of brood-frames supported in the brood-chamber, said brood-frames having heads engaging one another and providing a space at the front and rear, followers at the sides of the row of brood-frames in spaced relationship with the adjacent walls of the brood-chamber and arranged to be dropped inside of the side rails when the brood-chamber is placed on the bottom-board with the brood-frames parallel to the side rails, to provide a space between said followers and side rails for ventilation, a screened rear end piece connecting the side rails, and admitting air to the space at the rear, and an entrance block connecting the side rails at the front admitting air to the space at the front.

8. In a beehive, a pair of brood chambers arranged to be set one upon the other, a plurality of brood-frames of a lesser height than said brood-chambers equal to an exact bee-space, means enabling the hanging of the brood-frames in said chambers, and closure strips arranged to be laid transversely of the brood-frames between the pair of chambers to connect the brood-frames and prevent the bees from gluing the ends.

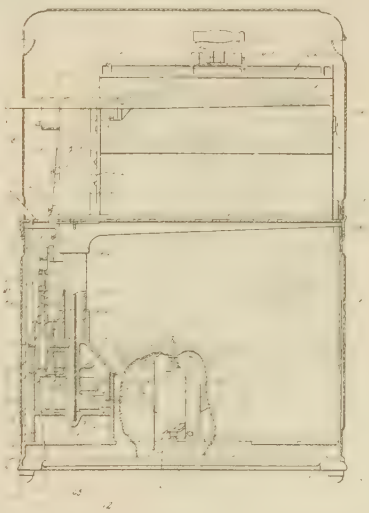
12. In a beehive, a super, a pair of ledges, section holders including end bars, a bottom channel connecting the end bars including relatively deep flanges and a U-shaped portion, said flanges having cut-way ends to rest on the ledges, a removable top channel, the flanges of both channels being adapted to cover portions of the sections held in the holder to keep the edges clean, means providing a support for the bottom channel from the top channel, and end locks carried by the end bars engaging the top channel when the section holder is forced into the super.

17. A beehive, including a bottom board with side rails and end closure strips, and a plurality of brood chambers, each with a pendent brood frame having contacting heads spaced from adjacent chamber walls, and side closure partitions, those of the lowermost brood chamber resting on the closure strips and engaging the partitions of the chamber above, to make continuous walls and a surrounding dead air space.

1,417,624. AUTOMATIC DRIVER. FERRIS A. MIDDLETON, San Francisco, Calif. Filed Oct. 27, 1919. Serial No. 333,677. 2 Claims. (Cl. 188—169.)

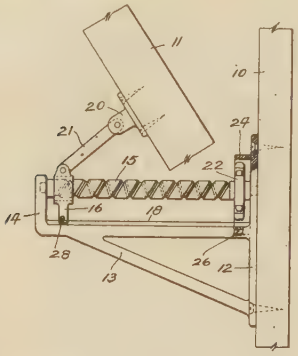
1. In combination with a motor driven vehicle, a longitudinal pole swingable on a detachable pivot extending from the front axle in vertical direction, the rear end of said pole engaging the steering apparatus of said vehicle, the front end adapted to be connected with some power, the pole being divided into a forward and a rearward part, a lever fulcrumed at the front end of the rearward part, one arm of said lever pivotally engaging the back end of the forward part of the pole and a spring extending backwardly from said forward part and rigidly connected to the rearward part of the pole, the other arm of the lever engaging a wire cable, the latter controlling the brake.

1,417,625. IRONING MACHINE. JOHN MIKULASEK, Newton, Iowa. Filed Oct. 27, 1920. Serial No. 419,939. 13 Claims. (Cl. 68—9.)



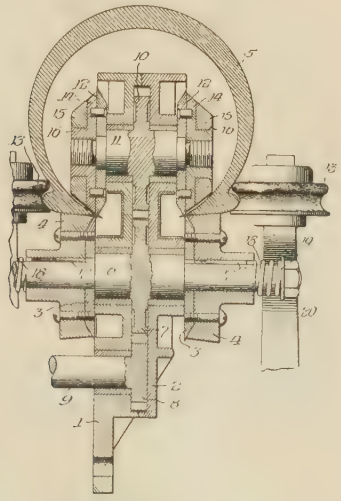
8. In an ironing machine, a rotatable work-supporting roller, a shoe for pressing the work against the roller, a swinging support carrying the shoe and operable to place the same into and out of operative position, a drive shaft having operative connections with the roller and the shoe, and means for breaking the operative connection between the shaft and the shoe without breaking the operative connection between said shaft and the roller.

1,417,626. TRANSOM ATTACHMENT. PETER J. NOLAN, Chester, Pa. Filed Feb. 17, 1921. Serial No. 445,858. 2 Claims. (Cl. 268—17.)



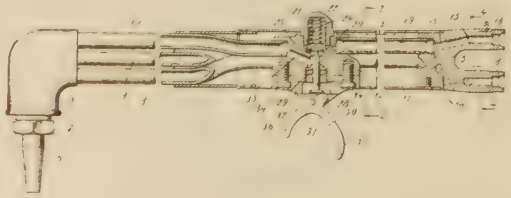
1. In combination a pivotal element, a fixed plate having extended horizontally therefrom a bracket the free end of which terminates in an upwardly extended arm paralleling said plate said bracket being provided with a guide-rail disposed in parallelism therewith, a screw journaled between said arm and plate in a plane above said guide-rail, a toothed wheel fixed to said screw, vertically movable means cooperatively engaging said wheel for operating said screw, a follower cooperative with said screw said follower being provided with a depending guide arm the lower end of which is bifurcated for engaging said guide-rail, an anti-friction roller journalled in the bifurcated portion of said guide arm for travel over said guide-rail and a link pivoted to the follower top and pivotally connected to said pivoted element, the axis of the pivotal connection of said link with said follower being in the same vertical plane with the axis of said anti-friction roller whereby the stress of the operating parts and the weight of the transom is carried by said anti-friction roller thus relieving the screw from stress and weight and rendering the operation of the device more facile.

1,417,627. MACHINE FOR TRIMMING TIRES. EDWARD D. PUTT, Akron, Ohio, assignor to The Firestone Tire and Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed May 25, 1920. Serial No. 384,096. 2 Claims. (Cl. 164—61.)



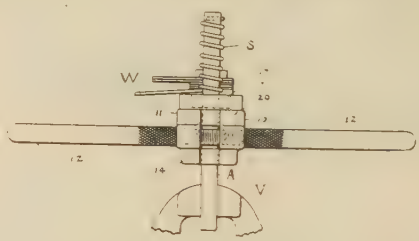
1. In a machine for trimming tire casings, a roller conforming to the heel of the bead, second and third rollers conforming respectively to the inside and outside lower edges of the casing, said second named roller having a freely rotatable tire engaging portion, and a knife at the rear of the last two rollers.

1,417,628. BLOWPIPE. EUGENE L. RAGONNET, Miami, Fla., assignor to Air Reduction Company, Inc., a Corporation of New York. Filed Jan. 13, 1921. Serial No. 436,939. 2 Claims. (Cl. 158—27.4.)



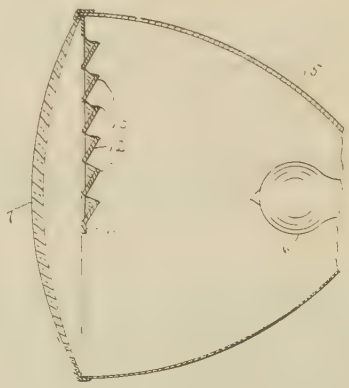
1. In a cutting blowpipe, the combination including a conduit for oxidizing gas to supply the cutting jet and conduits for oxidizing and combustible gases to supply the heating flames, a casing surrounding the rear portions of the conduits and forming a handle of the blowpipe, a block within the handle having a valve chamber, means for delivering oxidizing gas to the valve chamber, a valve within the valve chamber to control the oxidizing gas for the cutting jet, a valve stem projecting through the handle, and a pivoted trigger having a roller contacting with the stem to actuate the valve when the trigger is turned about its pivot, the pivot of the trigger being offset from the axis of the stem whereby the valve is held in open position when the roller passes the axis.

1,417,629. WIRE-COILING DEVICE. FREDERICK M. RAMSDELL, Worcester, Mass. Filed Apr. 15, 1920. Serial No. 374,081. 6 Claims. (Cl. 153—67.)



1. As an article of manufacture, a hand tool for coiling springs comprising an arbor and a work holder rotatable thereto, a flat plate secured to said work holder, and a series of spacing plates adapted to be mounted on said plate in different planes and fixed thereto in two positions, those nearest the flat plate being spaced from the arbor, whereby the coarseness of the coil produced can be changed by the fixing of the necessary number of said spacing plates in operative position.

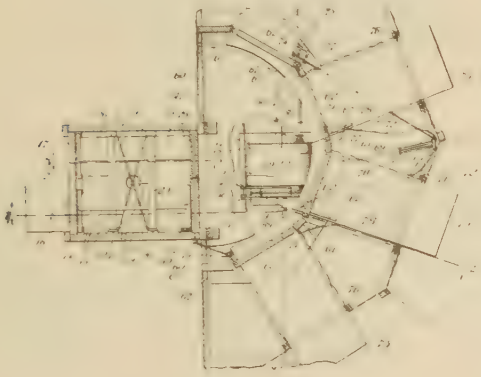
1,417,630. LIGHT DIMMER. HENRY S. ROBERTS, Los Angeles, Calif. Filed Nov. 13, 1919. Serial No. 337,769. 2 Claims. (Cl. 240—48.4.)



1. In a dimmer for headlights, comprising a portion located only in the upper part of the lens, and a de-

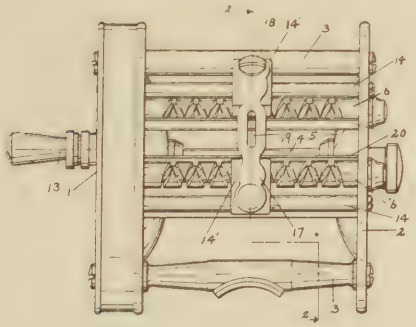
pending portion located in front of the lamp, and substantially horizontally arranged louvers covering substantially the entire surface of both said portions.

1,417,631. PEDIGREE TRAP NEST AND FLOCK CULLER. JAMES L. ROBERTS, Gorin, Mo. Filed Oct. 5, 1920. Serial No. 414,839. 11 Claims. (Cl. 119—47.)



1. A trap nest and flock culler comprising, in combination, a nest box, a nest in said box having an opening in the bottom thereof, an entrance door in said box, a plurality of exit doors in said box, one of said exit doors adapted to normally allow exit but prevent entrance of a hen therethrough, means actuated by the weight of a hen to close said entrance door, means actuated by the pressure of an egg to close said normally open exit door and to open a normally closed exit door.

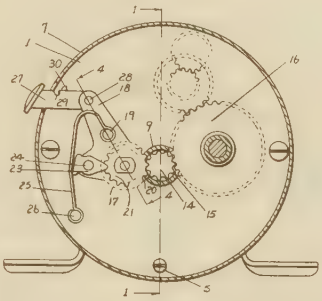
1,417,632. FISHING REEL. SAMUEL G. RUSSELL, Kalamazoo, Mich., assignor to The Shakespeare Company, Kalamazoo, Mich. Filed Apr. 21, 1921. Serial No. 463,321. 7 Claims. (Cl. 242—84.4.)



6. In a fishing reel, the combination of a frame, a spool, a pair of traversing shafts, line guide carriages provided with pawls coacting with said shafts, and a line guide member pivotally mounted on said line guide carriages.

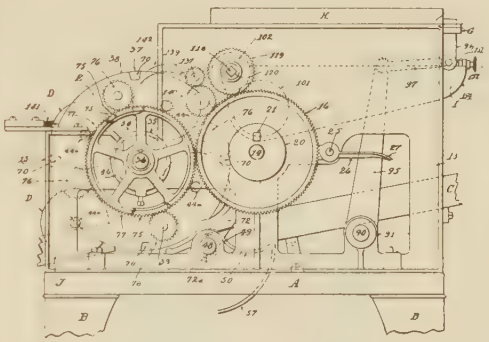
1,417,633. FISHLINE REEL. WILLIAM SCHMID, Bronson, Mich. Original application filed Sept. 5, 1919, Serial No. 321,910. Divided and this application filed Aug. 9, 1920. Serial No. 402,138. 3 Claims. (Cl. 242—84.6.)

1. In a fishing reel, the combination with a frame provided with a head chamber, a spool provided with a pinion disposed in said chamber, driving means for said spool, a click pinion, a driving pinion secured thereto, a support for said click pinion pivotally mounted within said head chamber, said support being adjustable to bring said click driving pinion into and out of mesh with said spool



pinion, a click pivotally mounted on said support to coact with said click pinion, a spring acting on said click and urging said support into operative position, and a latch for holding said support in inoperative position projecting from said head chamber.

1,417,634. LABEL-PASTING MACHINE. AXEL SCHOLIN, Chicago, Ill., assignor to Automatic Wrapping Machine Co. Filed Aug. 11, 1916, Serial No. 114,394. Renewed Nov. 28, 1919. Serial No. 341,268. 33 Claims. (Cl. 216—59.)

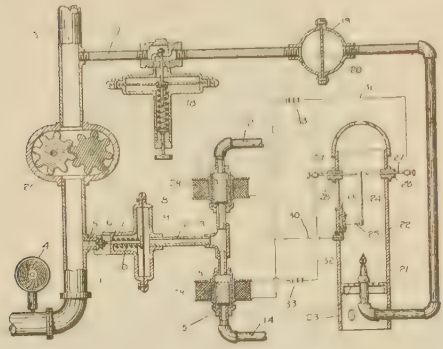


1. In a label pasting machine, the combination, of an intermittently rotating cylinder, a series of rollers rotatably mounted in said cylinder, a frame structure reciprocatingly mounted in said machine, a label box, removably mounted in said frame structure, a paste box, said paste box being located underneath said label box, said paste box being removable independently of said label box, paste supplying rollers rotatably mounted in said paste box, mechanism constructed to intermittently rotate said cylinder, automatically operating means constructed to positively lock said cylinder against rotation during the periods of non rotation thereof, automatically operating means for releasing the cylinder locking means, means for continuously rotating said rollers in said cylinder, and means for rotating the paste rollers in said paste box.

1,417,635. APPARATUS FOR MAINTAINING CONSTANT HEAT VALUE. HARRY F. SMITH, Lexington, Ohio, assignor, by mesne assignments, to The Gas Research Company, Dayton, Ohio, a Corporation of Ohio. Filed Mar. 11, 1918. Serial No. 221,747. 5 Claims. (Cl. 48—87.)

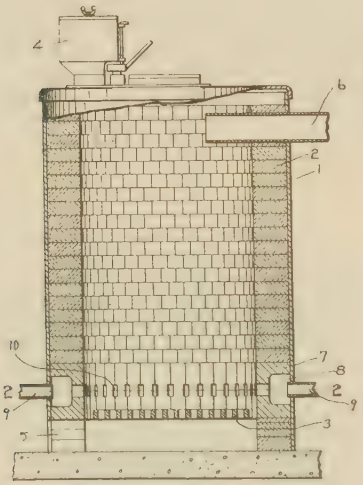
1. In a device for maintaining a substantially constant heat value in a fluid conveying means; the combination

of a valve for admitting a diluent to the fluid within the main; pressure operated means for controlling said valve; electrically operated means for controlling the pressure operating said pressure operated means; means for withdrawing from the main a constant quantity of the diluted



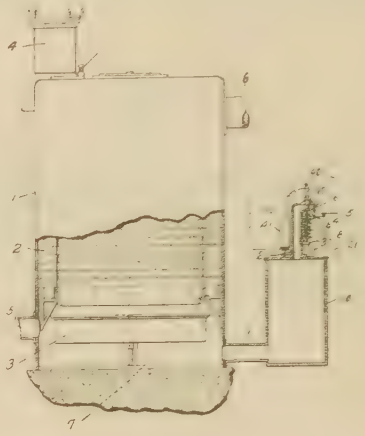
fluid; means for burning such withdrawn fluid, and means responsive to variations in the heat generated by the burnng fluid adapted to actuate the electrically operated means to vary the amount of diluent admitted to accord with variations in the heat generated by the burning fluid.

1,417,636. METHOD OF PREVENTING WALL ACTION. HARRY F. SMITH, Dayton, Ohio, assignor, by mesne assignments, to The Gas Research Company, Dayton, Ohio, a Corporation of Ohio. Filed May 24, 1918. Serial No. 236,263. 5 Claims. (Cl. 48—197.)



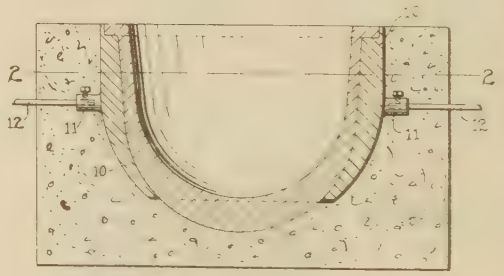
1. The method of generating producer gas, in which a fuel bed of ignited carbonaceous material is maintained within the generating chamber of the producer, which consists in blasting the body portion of the fuel bed within the generator with a fluid adapted to react with the fuel to form a combustible gas, and at the same time passing through the zone of fuel adjacent the wall of the generator sufficient of a fluid which is relatively inactive with respect to the fuel to exclude from such zone substantially all of the relatively active fluid which is being passed through the body of the fuel bed.

1,417,637. METHOD OF FUEL AGITATION. HARRY F. SMITH, Dayton, Ohio, assignor, by mesne assignments, to The Gas Research Company, Dayton, Ohio, a Corporation of Ohio. Filed Aug. 1, 1918. Serial No. 247,877. 4 Claims. (Cl. 48—197.)



1. The method of agitating the fuel bed within a gas producer or the like, which consists in igniting an explosive mixture, and applying the resulting explosive force to the underside of the ash zone of the fuel bed, to lift the fuel bed bodily.

1,417,638. METHOD OF CONTROLLING THE CONDITION OF CASTINGS. OSSA SOWERS, New York, N. Y. Filed Apr. 6, 1921. Serial No. 459,022. 7 Claims. (Cl. 22—211.)

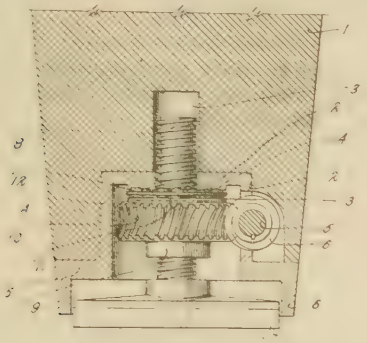


1. The method of treating iron which can be converted into malleable iron which consists in passing an electric current through an iron article, and regulating the current to cause more current to pass through the thicker than the thinner portions and to keep the entire article for a period of several hours at a temperature near the point at which the combined carbon changes to temper and free carbon, whereby the iron is rendered malleable.

1,417,639. TABLE LEVELER. DANIEL L. STERNER, Spokane, Wash. Filed Mar. 19, 1921. Serial No. 453,826. 1 Claim. (Cl. 46—13.)

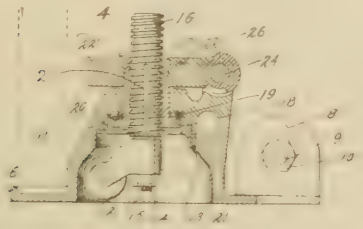
The combination in a leveling device with a housing having an upper perforated head and lower, flanged base plate, of a foot plate within the flanged base plate and a stationary, threaded bolt on said foot plate projected

through the perforated head, a rotary traveling nut on the bolt, an anti-friction bearing between said nut



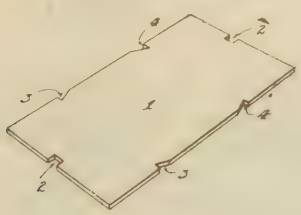
and perforated head, an exterior worm wheel on said nut, a worm shaft journaled in the housing and a worm on said shaft engaging said wheel, for the purpose described.

1,417,640. ADJUSTABLE CASTER. DANIEL L. STERNER, Spokane, Wash. Filed Mar. 19, 1921. Serial No. 453,827. 3 Claims. (Cl. 16—19.)



2. The combination with a base plate having angular retaining flanges and an integral housing, of a rotatable bushing in the housing, an annular flange on the lower end of the bushing and an antifriction bearing between said flange and housing, a screw shaft threaded in said bushing, a retaining plate below the annular flange and having means engaging said shaft to hold it against rotation, a caster on the shaft within the housing, and means for revolving the bushing.

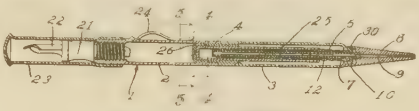
1,417,641. SHINGLE. LEWIS M. STUFFINGS, deceased, late of Peoria, Ill., by Katherine E. Stuffings, administratrix, Peoria, Ill. Filed Mar. 25, 1921. Serial No. 455,635. 6 Claims. (Cl. 108—8.)



2. A shingle having a notch cut therein midway the width thereof at one of its shortest edges, and having a notch in each of its opposite edges nearest the end remote from that having the first named notch.

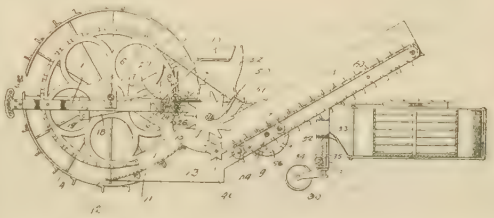
1,417,642. COMBINATION FOUNTAIN PEN AND PENCIL. ALBERT ROMAINE TALLMAN, Nashville, Tenn. Filed Sept. 28, 1921. Serial No. 503,744. 4 Claims. (Cl. 120—10.)

4. In a pencil, a barrel member; a sleeve carried thereby; a tube rotatable in the sleeve; a plunger held for right line movement in the tube and including a part having threaded connection with the sleeve, the plunger comprising a resilient arm cooperating with the tube to hold said part of the plunger in threaded engagement with the sleeve; a second barrel member; and means for



connecting the barrel members detachably, the second barrel member carrying a part cooperating with the resilient arm of the plunger, to bring said part of the plunger into threaded connection with the sleeve, when the plunger is in retracted position.

1,417,643. PLOW. WILBERT L. TRUSSELL, Minneapolis, Minn. Filed July 24, 1919. Serial No. 312,973. 8 Claims. (Cl. 55—51.)



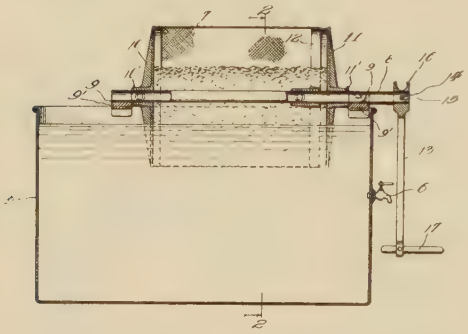
1. In a machine of the class described, the combination with a trough, gathering mechanism at the forward end thereof, conveying mechanism in the rearward portion thereof spaced from said gathering mechanism, a main frame supporting said trough, main wheels connected by an axle journaled in said frame, a main shaft journaled through said trough, and connections between said main shaft and axle; of comminuting mechanism disposed between the shovel and carrier and comprising a lower toothed drum and an upper toothed drum, connections between the shaft of the lower drum and the main shaft, arms pivotally mounted on said shaft and connected by an arch, the front ends of said arms supporting the shaft of said upper drum, a sprocket wheel on this shaft and another on the main shaft, and a chain connecting said sprockets.

1,417,644. CONCRETE-POST MOLD. EDWARD B. TYLER, Wayne City, Ill. Filed June 24, 1920. Serial No. 391,393. 6 Claims. (Cl. 25—121.)

1. A post mold including side and end walls, one end wall having its opposite sides extended and provided with

apertures, a resilient latch carried by one side wall for cooperation with said apertures, and cam means cooperating with the latch for causing the same to move to disengage and engage said apertures.

1,417,645. FURNACE-ASHES WASHER. HOWARD M. WEBSTER, Chicago, Ill. Filed Mar. 10, 1921. Serial No. 451,231. 5 Claims. (Cl. 83—60.)

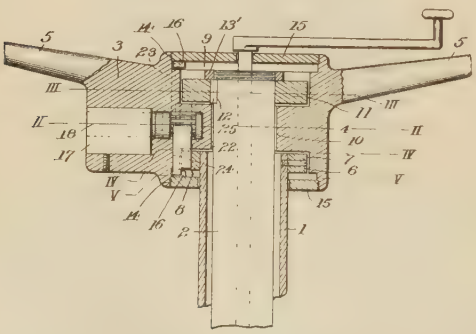


1. Means for washing furnace ashes comprising a water tank, cross bars mounted on the tank, a rotatable shaft supported in bearings on said cross bars and projecting at one end beyond an end of the tank, and a cylindrical screen mounted on the shaft between the cross bars and having heads provided with outwardly projecting hubs to operate in juxtaposition to the bearings whereby to avoid material endwise movement of the screen.

1,417,646. BUTTON. FRANKLIN R. WHITE, Waterbury, Conn., assignor to The Patent Button Company, Waterbury, Conn., a Corporation of Connecticut. Filed Apr. 21, 1921. Serial No. 463,187. 11 Claims. (Cl. 24—95.)

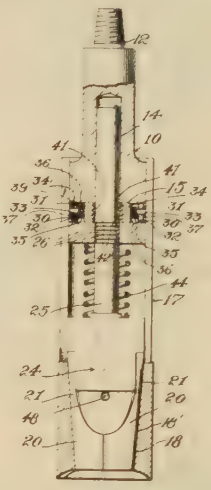
4. A button comprising a body portion, an upstanding member adjacent the upper rim of the body portion, a cap for said body portion, and an anvil within said body portion and firmly held in place between said cap and said upstanding member, said anvil adapted to receive the strains incident to the heading of a fastener within said button.

1,417,647. STEERING-WHEEL LOCK. MILO RITTER WHITE, Washington Township, Elkhart County, Ind. Filed Oct. 24, 1921. Serial No. 510,055. 15 Claims. (Cl. 70—129.)



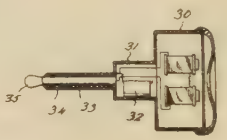
1. In the combination of a steering column, steering post, and steering wheel, lock means carried by said wheel and adapted upon operation thereof to one position to operatively connect said wheel to said post and upon operation thereof to another position to connect said wheel to said column.

1,417,648. SLIP SOCKET. CLARENCE P. WILLIAMS, Syracuse, Ohio. Filed Sept. 16, 1920. Serial No. 410,688. 3 Claims. (Cl. 294—102.)



1. In a device of the class described, a head having longitudinal and transverse bores, a shell connected with the head, tool-engaging devices within the shell, said shell having tapered inner walls for throwing the engaging devices therein to operative position, a stem connected with said tool-engaging devices, an engaging device mounted in the transverse bore of the head to retain the stem, said device last named including a shank portion, a cap threaded into one end of the transverse bore and apertured to receive the shank of the engaging device, the cap being rotatable independently of the shank.

1,417,649. PLUG-IN ATTACHMENT. DELAVERGNE P. WILLIAMS and JOHN F. WILLIAMS, Sandusky, Ohio. Filed May 21, 1921. Serial No. 471,416. 8 Claims. (Cl. 179—100.)

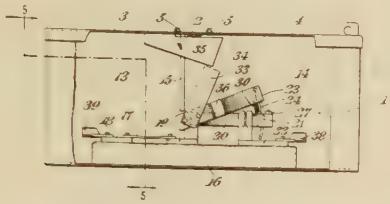


1. The combination with a plug comprising a body portion having a pair of contacts projecting therefrom, of a condenser arranged within said body portion and in electrical circuit with said contacts.

1,417,650. SAFETY SWITCH. FREDERICK O. WINKLEHAUS, New York, N. Y., assignor to Metropolitan Electric Manufacturing Company, a Corporation of New Jersey. Filed Aug. 14, 1919. Serial No. 317,523. 1 Claim. (Cl. 200—73.)

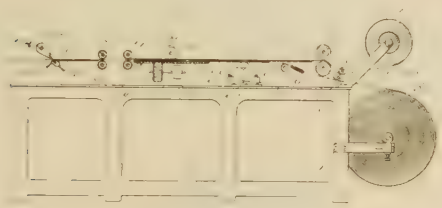
A safety switch comprising a casing, an operating element disposed transversely of the casing and mounted for pivotal movement therein, an arcuate bar carried by said element and having a hook on its upper end and an elongated aperture in its lower depending end, a switch arranged in said casing and having a controlling member mounted to oscillate between open and closed positions about an axis substantially the same as the axis of the element, a lug carried by the switch controlling

member and projecting radially therefrom, said lug passing through the bar and having a neck portion in said elongated aperture, said lug terminating at its free



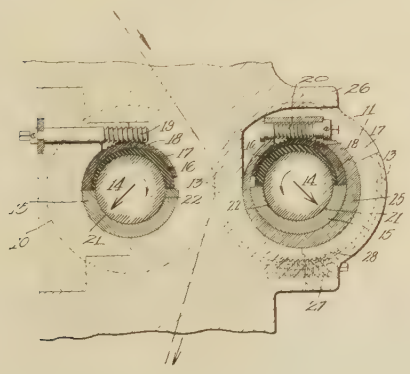
end in a hook, a spring connected between the hook on the lug and the hook on the bar, and means accessible from the exterior of the casing for shifting the operating element to operate the switch to either of its positions.

1,417,651. STRIP-UNITING MACHINE. FREDERICK A. WOEHR, Rochester, N. Y., assignor to George J. Gillies, Rochester, New York. Filed February 4, 1921. Serial No. 442,541. 18 Claims. (Cl. 93—1.)



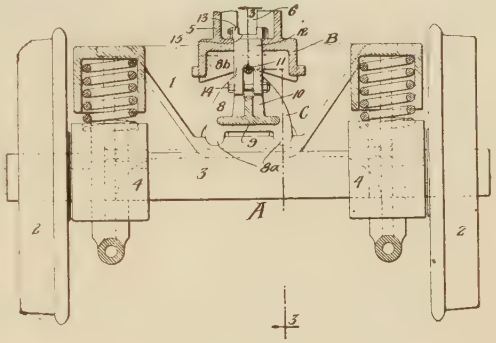
1. A machine of the class described comprising means for feeding two separate strips of material in parallel relation, means for supplying an adhesive to the strips for uniting the edges of the two strips, and mechanism for folding the opposite edges of one of the strips about the edges of and in engagement with the outer face of the other strip during the feeding of the strip.

1,417,652. MEANS FOR PREVENTING VIBRATION OF PRINTING-PRESS CYLINDERS. HENRY A. WISE WOOD, New York, N. Y., assignor to Wood Newspaper Machinery Corporation, New York, N. Y., a Corporation of Virginia. Filed July 17, 1918. Serial No. 245,344. 15 Claims. (Cl. 101—219.)



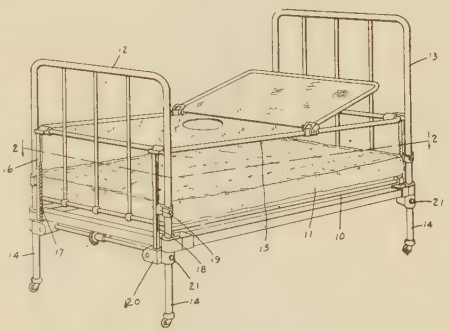
1. In a rotary printing press, the combination with the printing couple, of means for maintaining the centers of the printing couple continuously at the same distance apart to prevent margin guttering, and means for taking up the wear on the bearings of the journals of the cylinders, whereby the guttering will be prevented independently of the wear of the bearings.

1,417,653. RAILWAY TRUCK. WILLIAM E. WOODARD, Forest Hills, N. Y. Filed July 13, 1920. Serial No. 395,907. 9 Claims. (Cl. 105—186.)



1. A lateral motion truck comprising in combination with the truck frame, a bolter, an invested rocker between the frame and the bolster, and means providing a lost motion connection between the boster and the rocker.

1,417,654. ADJUSTABLE BEDSTEAD FOR INVALIDS. CHARLES S. WOODS, Indianapolis, Ind. Filed June 17, 1921. Serial No. 478,255. 3 Claims. (Cl. 5—45.)

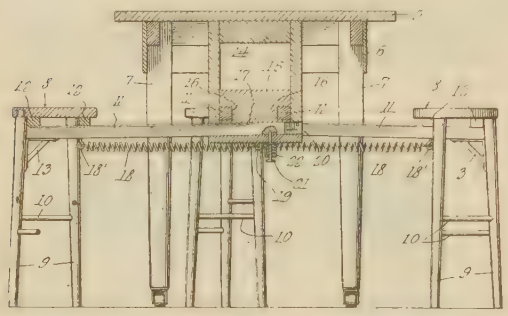


1. The combination with a standard bedstead, a mattress mounted thereon, and a spring construction for supporting said mattress, of an attachment for converting said bed into an invalid bed comprising an invalid bed frame structure adapted to be supported over said mattress, a plurality of standards secured to said frame structure having ratchet teeth thereon, pinions for engaging said teeth, a plurality of shafts for driving said pinions whereby said frame standard may be elevated or lowered with respect to said bedstead, and means for detachably securing said shafts and standards to said bedstead so as to be removable therefrom.

1,417,655. COMBINED TABLE AND CHAIR. JOSEPH ZIELINSKI, East St. Louis, Ill. Filed Nov. 8, 1921. Serial No. 513,762. 3 Claims. (Cl. 45—31.)

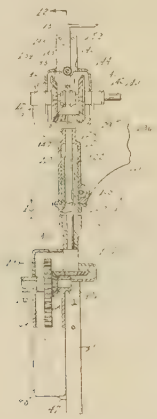
1. The combination with a table having a top and legs depending from the top, of a housing arranged substantially centrally beneath the top and secured thereto, said housing having an inclined opening formed therein, a reciprocatory guide bar arranged at an inclination and slidable within said opening, a chair connected with the

outer end of the reciprocatory bar and adapted to be bodily raised thereby, means to shift the reciprocatory



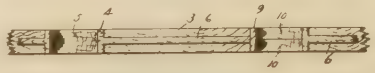
bar inwardly, whereby the chair is automatically elevated out of contact with the floor, and means to lock the bar in the outer position.

1,417,656. PIVOTED WRINGER STRUCTURE FOR WASHING MACHINES. ROBERT J. ANDERSON, Sidney, Ohio. Filed Aug. 22, 1917. Serial No. 187,598. 5 Claims. (Cl. 74—101.)



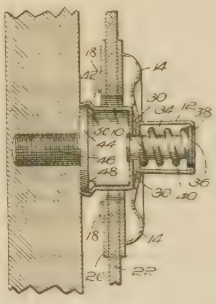
1. In a device of the character described, the combination of a main frame, a column extending upwardly therefrom, said column comprising an upwardly extending journal bushing, a sleeve-bearing about said journal bushing having a central bearing-bore rotating about said journal bushing, the said bearing-bore extending upwardly beyond said journal bushing the upper end of said sleeve-bearing being reduced in cross-section, said reduced portion spaced from the upper end of said journal bushing by a section of said bearing-bore, and a laterally extending wringer-bracket on said sleeve-bearing, the lower end of said sleeve-bearing and said column at the lower end of said journal bushing respectively provided with coacting laterally extending annular flanges having mating bearing faces forming a step-bearing between said sleeve-bearing and said journal bushing, and the upper end of said journal bushing being spaced from the upper end of said bearing bore for locating said upper end of said journal bushing free of end-contact with said sleeve-bearing in said bearing-bore, and a friction-clamp between said sleeve-bearing and said journal bushing to frictionally hold said sleeve-bearing and said journal bushing together.

1,417,657. WING-SPAR CONSTRUCTION FOR AEROPLANES. OSMON THERON BELCHER, Los Angeles, Calif., assignor to Belcher Aerial Manufacturing Company, a Corporation of California. Filed Aug. 9, 1921. Serial No. 490,954. 4 Claims. (Cl. 244—31.)



1. In a wing spar construction for aeroplanes, a cord member comprising a plate, brace seat blocks formed upon the plate and ribs made integral with the plate and the brace seat blocks and extending up between the blocks.

1,417,658. TURNBUTTON FASTENER. DAVID BOURQUE, Amesbury, Mass., assignor to G. W. J. Murphy Company, Amesbury, Mass., a Corporation of Massachusetts. Filed Feb. 16, 1921. Serial No. 445,253. 13 Claims. (Cl. 24—221.)

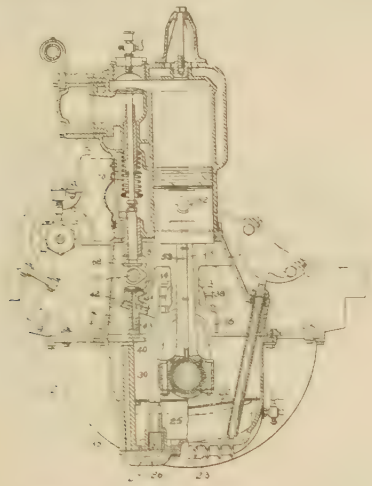


5. A turnbutton fastener comprising, in combination, an eyelet having an oblate opening, rearwardly extending ears at the sides of the opening and cam rises on the face thereof along the longer sides of the opening and comprising also a turnbutton having a body to be embraced by the eyelet having an effective height less than the effective thickness of said eyelet measured between the ends of said ears and the crests of said rises and having a head rotatably mounted on the base by means including a spring exterior to the body and adapted in the locked position of the parts to ride on said rises and be displaced thereby away from the body against the force of the spring.

1,417,659. LUBRICATING DEVICE FOR GAS ENGINES. ROBERT J. BROEGE, Harvey, Ill., assignor to Buda Company, a Corporation of Illinois. Filed May 10, 1918. Serial No. 233,622. 10 Claims. (Cl. 184—6.)

8. The combination with an engine casing having an upper cam-shaft bearing and a lower crank-shaft bearing, of an oil reservoir in said casing, a portion of said casing formed with a by-pass, oil impelling means including an upwardly directed oil conduit leading from the reservoir to said by-pass, an oil conduit substantially horizontally dis-

posed in the casing above the by-pass and having a duct communicating with the crank-shaft bearing, and a pair

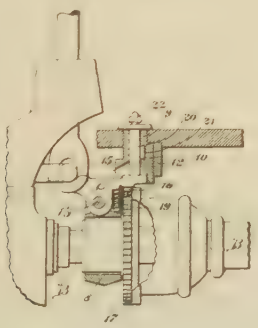


of ducts independently leading from the by-pass to the horizontal conduit and to the cam-shaft bearing.

1,417,660. PLUMBING SYSTEM. FRANK W. CARLSON, Chicago, Ill. Filed Mar. 27, 1919. Serial No. 285,553. 10 Claims. (Cl. 137—75.)

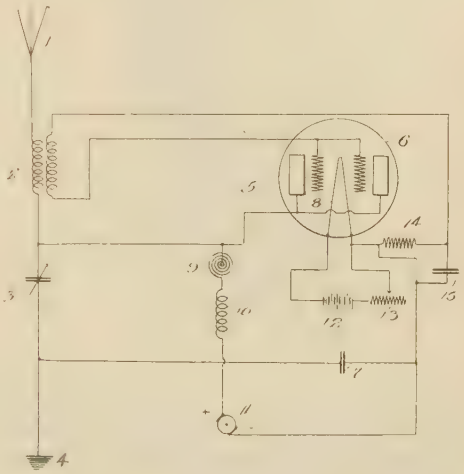
4. A waste pipe of a plumbing system having oppositely disposed openings therein, and a transverse baffle plate in the pipe above said openings to check and break the flow of waste in the pipe.

1,417,661. AUTOMOBILE LOCK. SHERMAN H. DORSEY, St. Louis, Mo., assignor to Traffic Motor Truck Corporation, St. Louis, Mo., a Corporation of New York. Filed Apr. 7, 1919. Serial No. 288,203. 4 Claims. (Cl. 70—80.)



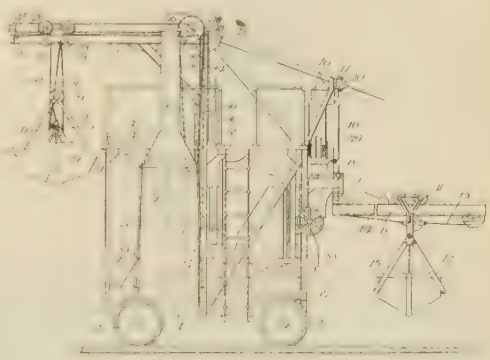
1. In a locking device for an automobile having a drive shaft for the transmission of power to its traction wheels, a rotary locking member driven by said drive shaft so as to turn in response to movements of said shaft and traction wheels, a yieldable dog cooperable with said rotary locking member to prevent rotation of said wheels in only one direction, and a lock whereby said yieldable dog is retained in yielding engagement with said rotary locking member, said yieldable dog being movable independently of said lock to permit movement of the automobile in one direction.

1,417,662. RADIOSIGNALING SYSTEM. LEE DE FOREST, New York, N. Y. Filed June 16, 1917. Serial No. 175,118. 8 Claims. (Cl. 250—36.)



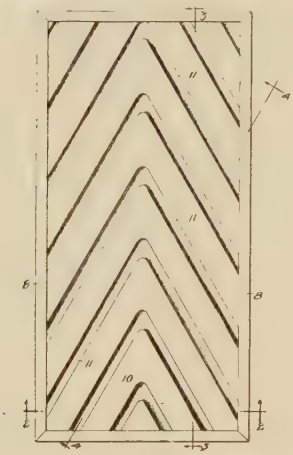
1. The combination with an antenna-earth system including an inductance and a capacity in series, of an evacuated vessel containing a hot and a plurality of cold electrodes, a conductive connection between said hot electrode and one side of said capacity, a conductive connection between one cold electrode and the other side of said capacity, and a circuit between another cold electrode and said hot electrode, inductively associated with said inductance of said antenna-earth system.

1,417,663. PORTABLE MIXING PLANT. JAMES C. FRENCH, Chicago, Ill., assignor to Frederick C. Austin, Chicago, Ill. Filed Mar. 7, 1918. Serial No. 220,897. 9 Claims. (Cl. 214—17.)



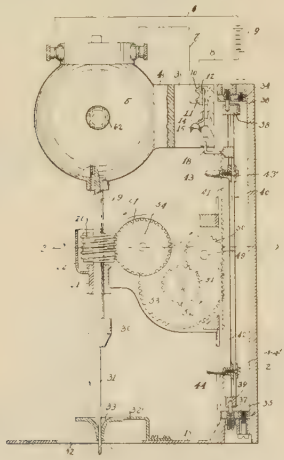
1. In a portable mixing plant for paving streets, the combination of a traveling body having a mixer mounted thereon, means for taking up a load of materials from either side or from a point in rear of the mixing plant and for delivering said materials to the mixer, having three separate and independent instrumentalities for (1) raising the load, (2) moving the load into position over the mixer, and (3) dumping the load, said instrumentalities including a manually operable controller and a separate endless belt operated thereby for moving said means either toward or away from the mixer, and an apparatus for delivering the mixture from the mixer to the street.

1,417,664. PANEL. LESLIE H. GARLINGHOUSE, Aspinwall, Pa., assignor to Blaw-Knox Company, a Corporation of New Jersey. Filed Oct. 13, 1919. Serial No. 330,344. 7 Claims. (Cl. 25—131.)



1. A panel for mold apparatus for concrete work comprising a sheet metal plate provided with reinforcement, such reinforcement being so disposed as to be cut by any straight line drawn through the panel which would cut any two opposite sides.

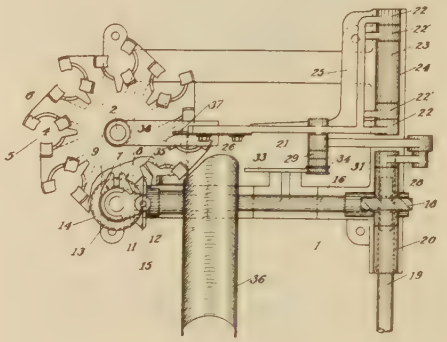
1,417,665. CLOTH DRILL. WALTER GORR, New York, N. Y. Filed Mar. 27, 1920. Serial No. 369,314. 9 Claims. (Cl. 77—32.)



1. A device for drilling cloth or the like comprising a drill, means for rotating the drill, means for rapidly advancing the rotating drill through the cloth or the like, means for automatically rapidly withdrawing the rotating drill therefrom at the end of the advance, means for preventing operation of said means for advancing and for withdrawing while the drill is rotating, and means for manually advancing and withdrawing the rotating drill after operation of said means for advancing and for withdrawing has been prevented.

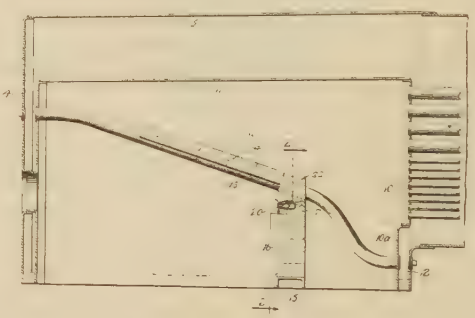
1,417,666. FRUIT-CUTTING APPARATUS. JAMES A. GRAY, San Francisco, Calif. Filed Sept. 12, 1921. Serial No. 500,083. 5 Claims. (Cl. 146—6.)

1. A machine, for annularly cutting fruit containing a hard central stone, for the subsequent halving of the fruit from the stone, comprising a rotatable turret support for the fruit provided with a plurality of fruit receiving pockets, means for cutting the fruit to form a continuous score annularly thereof inwardly from its surface to the stone, means for intermittently rotating



said turret for presenting the fruit contained in succeeding pockets to said cutting means, and means carried by and offset from said cutting means for automatically lifting the cut fruit from its associated pocket during the cutting of the fruit in a succeeding pocket.

1,417,667. LOCOMOTIVE FURNACE CONSTRUCTION. RALEIGH J. HIMMELRIGHT, New York, N. Y., assignor to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 24, 1919. Serial No. 292,251. 8 Claims. (Cl. 110—76.)

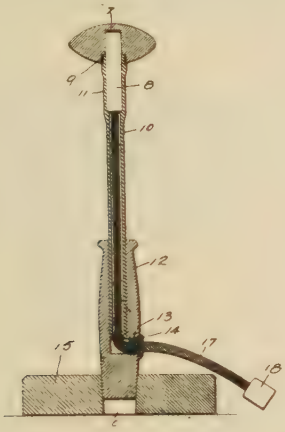


8. A locomotive furnace structure comprising in combination, side water walls, a transverse wall supporting member within the furnace in the lower portion theerof, a plurality of bricks on said member constituting a cross wall, a row of recessed bricks near the upper portion of said wall, an air pipe in said recesses, an air passage through a water wall communicating with the air pipe, and an air discharge opening from said pipe into the furnace.

1,417,668. SHAPING AND IRONING TOOL. FREDERICK E. KERN, St. Louis, Mo. Filed Feb. 14, 1921. Serial No. 444,631. 2 Claims. (Cl. 219—21.)

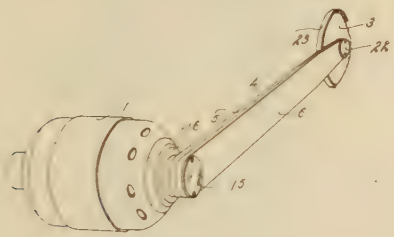
1. A shaping and ironing tool comprising an egg-shaped head, a heating coil located in said head, a detachable supporting rod secured to the head, a handle mounted on

said supporting rod, a plug carried by the handle, conductors passing through the side of the handle connected



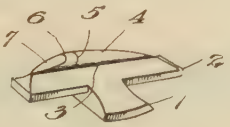
to the plug and the heating coil and a detachable base for holding the tool in an upright position.

1,417,669. SURGICAL SAW. MITCHELL LANGWORTHY, Spokane, Wash. Filed Mar. 5, 1921. Serial No. 449,826. 2 Claims. (Cl. 128—317.)



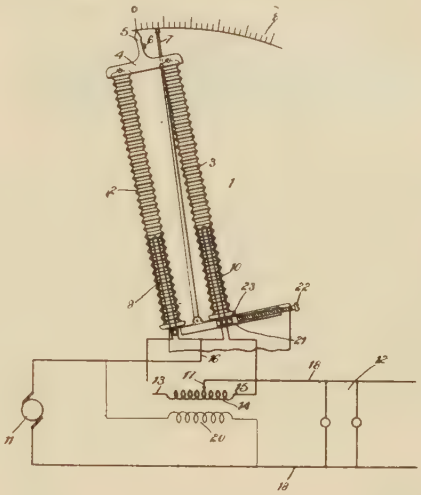
1. The combination with a motor and its shaft and a threaded boss on said motor, of a tubular arm, a nut on said arm for attachment to said boss, a driving wheel on said shaft located in the tubular arm, a driven wheel encased within the free end of said arm and operatively connected with said drive wheel, and a laterally disposed rotary saw operatively connected with said driven wheel.

1,417,670. FRONT SIGHT FOR RIFLES AND REVOLVERS. JOSEPH J. LE FEVER, Newport, Idaho. Filed Mar. 23, 1920. Serial No. 368,166. 1 Claim. (Cl. 33—52.)



A front sight for a fire arm comprising an attaching blade, an integral bead plate arranged at right angles to the blade and having its upper faces merging into a comparatively thin longitudinal web, an enlarged bead of double conical shape above said web having a cut away portion, and a sight piece fixed in said cut away portion and forming an integral part of the bead, said sight piece having an angular sight face at the free end thereof presenting the form of a circle when viewed from the breech end of the fire arm.

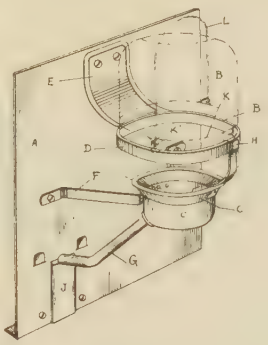
1,417,671. ELECTRICAL MEASURING INSTRUMENT. PAUL M. LINCOLN, Pittsburgh, Pa. Filed Sept. 16, 1918. Serial No. 254,209. 6 Claims. (Cl. 171—308.)



1. A measuring instrument comprising a pointer, a scale, differentially-acting thermal-responsive means for actuating the pointer, and mechanical means for adjusting the pointer to register with the division marks on the scale corresponding to the power being measured, said adjusting means being adapted to cause the pointer to indicate correctly throughout its movement.

2. A measuring instrument comprising two normally parallel pivotally-mounted expansible members, a pointer actuated by the differential expansion of the members and means for adjusting the pivotal point of one of the members.

1,417,672. RESERVOIR FOR OIL STOVES. WALTER C. LINDEMANN, Milwaukee, Wis. Filed Oct. 18, 1920. Serial No. 417,743. 7 Claims. (Cl. 158—46.)

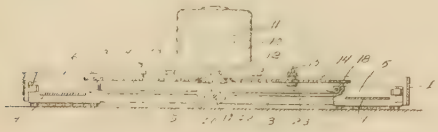


1. In a device for supplying fuel to liquid hydrocarbon stoves, the combination of a frame member, a reservoir comprising a main reservoir with bottom opening and an auxiliary reservoir surrounding said opening, a support secured to said frame member and extending around the main reservoir above the auxiliary reservoir, and a connecting member between said support and auxiliary reservoir having a fixed connection with one and a detachable connection with the other.

1,417,673. FLOOR POLISHER. MACDONALD ELLETT LIPSCOMB, Sweet Springs, Mo. Filed June 13, 1921. Serial No. 477,109. 4 Claims. (Cl. 15—49.)

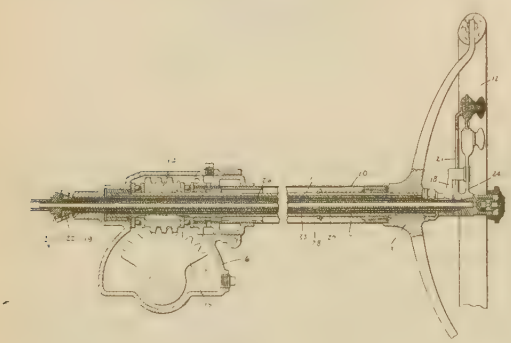
1. A floor polishing device comprising a frame, a brush mounted for reciprocating action in said frame, a motor

carried by said frame, means actuated by the motor for imparting reciprocating action to said brush, an eccentric roller mounted in said frame, and adapted for intermit-



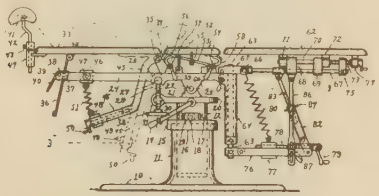
tent engagement with the floor for imparting intermittent travel to the device, and means whereby said roller is actuated from said motor.

1,417,674. ANTIRATTLE DEVICE FOR STEERING DEVICES. JOHN D. LOWE, Indianapolis, Ind., assignor to La Fayette Motors Company, Indianapolis, Ind., a Corporation. Filed Aug. 12, 1921. Serial No. 491,821. 3 Claims. (Cl. 74—39.)



1. A steering column for vehicles having a plurality of telescoping tubes contained therein, and means positioned between the adjacent surfaces of said tubes for preventing the engagement thereof whereby there will be no rattling or vibration set up therein.

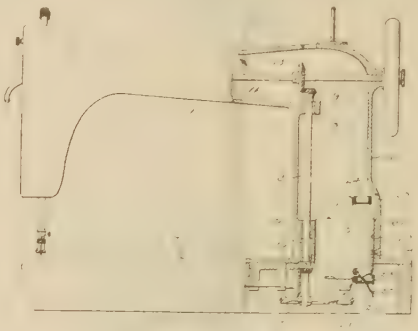
1,417,675. TREATMENT TABLE. JOHN V. MCMANIS, Kirksville, Mo. Filed July 30, 1919. Serial No. 314,278. 9 Claims. (Cl. 128—74.)



1. A treatment table comprising a base, a pedestal vertically adjustable relative to said base, a frame mounted upon and rotatably adjustable upon a substantially horizontal axle relative to said pedestal, means carried by said pedestal and frame to positively adjust said frame rotatably relative to said pedestal, and a plurality of table top sections mounted upon and relatively adjustable upon said frame.

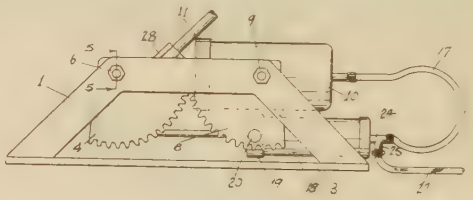
1,417,676. SEWING-MACHINE MOTOR DRIVE. ARTHUR T. MACE, East Cleveland, Ohio, assignor to The Domestic Electric Company, Cleveland, Ohio, a Corporation of Ohio. Filed Feb. 17, 1921. Serial No. 445,884. 12 Claims. (Cl. 112—220.)

1. In a motor driven sewing machine, the combination of needle bar and shuttle actuating members having a vertical drive shaft geared to said actuating members so as to cause them to move at less speed than the drive shaft, a hollow standard having provision for a motor, a motor removably mounted within such standard with its armature shaft substantially parallel with the drive shaft, and driving means connecting the armature shaft with the drive shaft including a sheave mounted on the



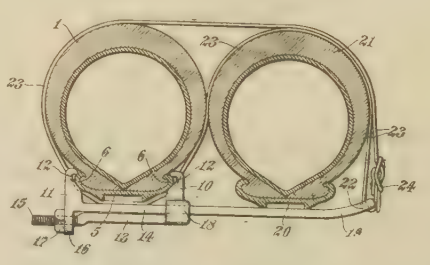
drive shaft projecting beneath the motor and removable whereby said driving means may be removed without disturbing the synchronous operation of the shuttle and needle bar.

1,417,677. COMPRESSION PUMP. FRED L. MANNY and WILLIAM H. KEY, Benton Harbor, Mich. Filed Mar. 28, 1921. Serial No. 456,471. 4 Claims. (Cl. 230—27.)



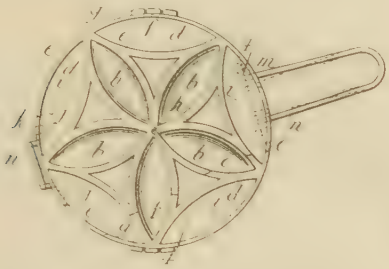
1. In a compound pump structure, a frame with symmetrical sides, pairs of segment gears pivotally disposed within the said frame and meshing with each other arranged to rock through substantially 90°, pump cylinders disposed between one pair of said gears, the larger of which cylinders is trunnioned at the upper edge of said segment gears and the smaller one of which is trunnioned at the lower edge of said gears, pistons and piston rods with bifurcated ends extending from said cylinders to symmetrically opposed cross rods between the opposed gear segments, a handle centrally disposed between the said second gears and pivotally carried on the said cross rods being retained in position by the bifurcated ends of said piston rods, a connection from the main pump cylinder to the intake end of the secondary cylinder containing a suitable check, and a connection from the secondary pump cylinder containing a check to the delivery hose, coacting for the purpose specified.

1,417,678. SPARE-TIRE HOLDER. JACOB MERZ, Chicago, Ill. Filed Oct. 23, 1919. Serial No. 332,831. 7 Claims. (Cl. 224—28.)



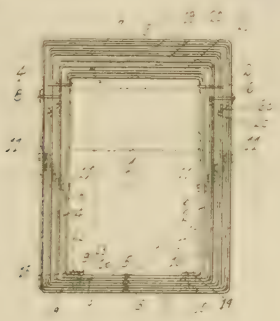
1. A spare tire holder, comprising, a pair of jaws adapted to grip the edges of a rim, and shanks on said jaws adapted to slide on one another.

1,417,679. MEANS FOR USE IN POACHING EGGS. ELLEN SUSAN MUSGRAVE, Amersham Common, England. Filed Nov. 22, 1920. Serial No. 425,879. 5 Claims. (Cl. 53—1.)



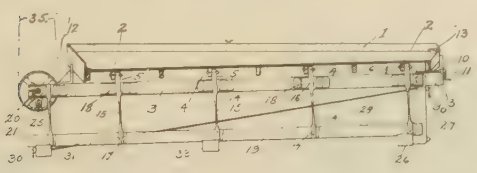
3. An egg poacher comprising a serving member and an egg separating member bodily detachable therefrom and carrying means hingedly and detachably connected to such serving member for the purpose specified.

1,417,680. CAMP STOOL. GUSTAVE NESLAND, Davenport, Iowa. Filed Nov. 16, 1921. Serial No. 515,561. 2 Claims. (Cl. 155—2.)



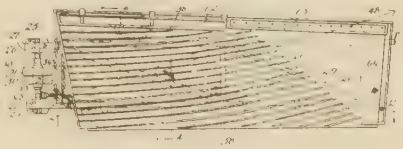
1. In a camp stool composed of two units capable of being folded into the space of a single unit, clasp means having a hexagon axle and spreading points, the clasp mounted within a boxing, the boxing and clasp mounted on a member of a unit of a stool, angulated groove means in the edges of the members of the units of a stool capable of receiving the arms of the clasp, the clasp suited for grasping the members of the stool upon which it is mounted, and other stools within such angulated grooves.

1,417,681. CONCENTRATOR. GUSTAVE A. OVERSTROM, Pasadena, Calif. Filed Nov. 20, 1916. Serial No. 132,387. 4 Claims. (Cl. 83—88.)



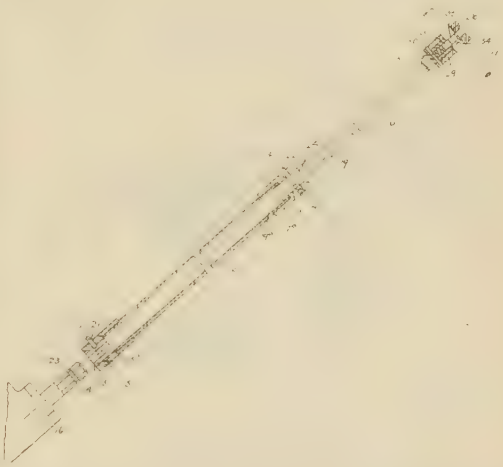
1. The combination, in a concentrator, of a horizontally reciprocating frame, and flexible supports therefor, a concentrating table hingedly mounted upon said frame, a shaft at one end of said frame, and an adjusting device at the other, an unbalanced power driven wheel mounted on said shaft, whereby, when said wheel is rotated, a reciprocating movement will be transmitted to said frame and table.

1,417,682. ORE-CONCENTRATING TABLE. GUSTAVE A. OVERSTROM, Pasadena, Calif. Filed July 17, 1918. Serial No. 245,309. 35 Claims. (Cl. 83—88.)



1. In an ore concentrator, the combination of a table and means for imparting a circular arc motion thereto, the center of the arc described by said table being at one side thereof, but in the vertical plane of the head motion end of said table, and which plane is at right angles to said end.

1,417,683. TELESCOPIC WRENCH. WILLIAM J. PARSONS, Montague, Mass., assignor to Millers Falls Company, Millers Falls, Mass., a Corporation of Massachusetts. Filed Dec. 8, 1921. Serial No. 520,894. 5 Claims. (Cl. 81—177.)

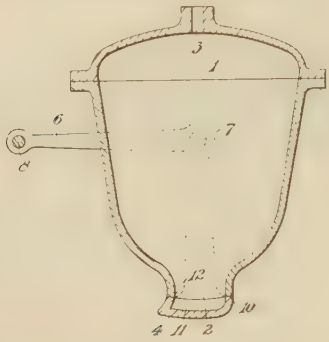


1. A telescopic wrench comprising an elongated inner member composed of a tube, and an inner and an outer sleeve, each sleeve having an enlarged bore portion receiving an end of the tube, and a polygonal bore portion of smaller diameter projecting from the sleeve, the polygonal bore portion of the inner sleeve constituting a wrench socket, and the polygonal bore portion of the outer sleeve constituting a coupling part and a guide; and an outer member composed of a solid rod polygonal in cross section, and slidably engaged with the bore of the outer sleeve to longitudinally extend and contract the wrench, the outer member being provided at its inner end with a stop enlargement, movable freely in the tube portion of the inner member, and adapted to abut against a shoulder on the said outer sleeve, to limit the elongation of the wrench, said stop enlargement being insertible in the tube portion of the inner member before the application of the inner sleeve, and prevented from withdrawal from said tube portion when the inner sleeve is applied.

1,417,684. APPARATUS FOR GATHERING GLASS FROM A MOLTEN MASS. ALFRED CECIL PILKINGTON, Rainhill, and JOSEPH GASKELL, St. Helens, England, assignors to Pilkington Brothers Limited, St. Helens, Lancaster, England, a Company of Great Britain. Filed Mar. 10, 1922. Serial No. 542,640. 6 Claims. (Cl. 49—62.)

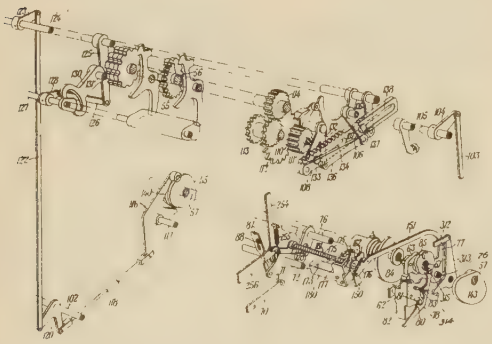
2. In apparatus for gathering glass, of the pipette type, an obturator adapted to contain a small quantity of glass, means operative to slide the said obturator over

the mouth of the pipette to open it, and an inner back edge on the said obturator adapted, on so sliding the



latter, to shear off from the glass in the mouth of the pipette, the small quantity of glass in the obturator.

1,417,685. COMBINED TYPEWRITING AND COMPUTING MACHINE. HENRY L. PITMAN, Elizabeth, N. J., assignor to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed May 15, 1919. Serial No. 297,274. 55 Claims. (Cl. 235—59.)



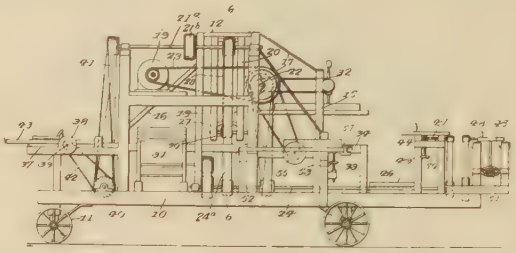
16. The combination of a carriage, numeral keys, computing mechanism, normally held power driving means for said computing mechanism, releasing means for said driving means, said releasing means being under the control of said keys, and means to lock said releasing means and thereby said numeral keys against actuation at predetermined positions in the travel of said carriage.

23. In a combined typewriting and computing machine, the combination of a carriage, numeral keys, computing mechanism, a power drive under the control of said numeral keys and with which said keys may become connected, means to prevent the simultaneous actuaton and connection of two keys with said power drive, and locking means to lock said power drive to prevent the actuation of any one of said keys at punctuation positions in the travel of said carriage.

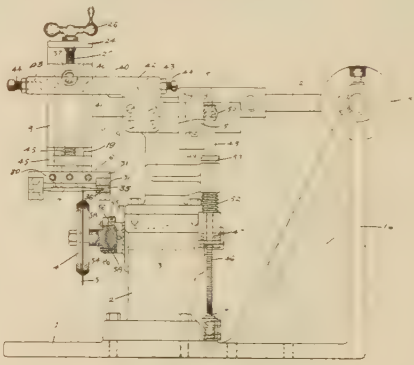
33. The combination of a carriage, numeral keys, computing mechanism, a normally held power drive for said computing mechanism, a release for said power drive under the control of said numeral keys, tabulator keys, a carriage release under the control of said tabulator keys, and means to permit the actuation of only one release at a time.

1,417,686. PORTABLE COMBINATION WOODWORKING MACHINE. JOHN F. POWELL, Monroe, La. Filed Aug. 1, 1921. Serial No. 488,970. 6 Claims. (Cl. 144—1.)

1. A wood working machine having a portable frame embodying a horizontal base, bench high tables supported thereby and a super structure including a motor supporting platform arranged above the plane of the tables, a main drive shaft disposed transversely substantially in the plane of the platform for direct connection with a motor thereon, forwardly and rearwardly extending longitudinal counter-shafts disposed respectively above the plane of the platform and adjacent to the plane of the base and operatively connected with the main shaft, and wood working implements disposed at the ends and sides of the frame and having tool carriers for selective connection respectively with said counter-shaft.

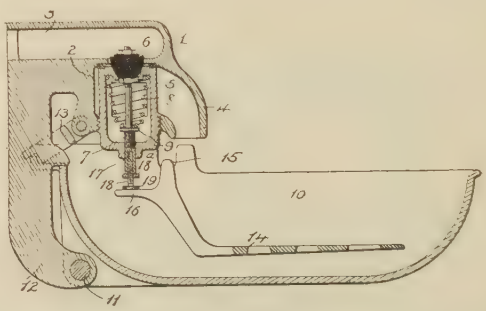


1,417,687. SAW-FILING MACHINE. WILLIAM S. PRITCHARD, Detroit, Mich. Filed Aug. 19, 1920. Serial No. 404,573. 18 Claims. (Cl. 76—35.)



1. The combination with means for holding a saw, of a member reciprocable transversely of the saw and adapted to hold a file for filing the teeth thereof, means for reciprocating said member, means for bodily raising said member during its travel in one direction to disengage the file from the teeth of the saw, and means independent of the saw for indexing the same while said member is in raised position.

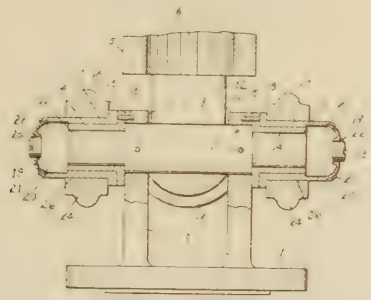
1,417,688. WATERING DEVICE FOR CATTLE. HUGO C. RASSMANN, Beaver Dam, Wis., assignor to F. Rassmann Manufacturing Company, Inc., Beaver Dam, Wis. Filed Feb. 11, 1921. Serial No. 444,183. 3 Claims. (Cl. 119—75.)



1. In a watering device, the combination with a valved fount including a spring-actuated valve, a bowl, and an

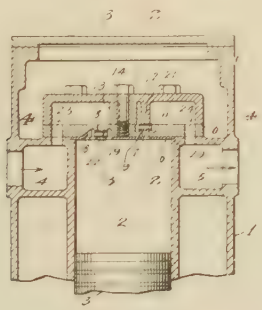
animal-controlled lever normally sustained in operative position by the stem of said spring-actuated valve, of adjusting means for said lever comprising a member having threaded connection with the valve stem and engaged by a part of said animal-controlled lever within the bowl.

1,417,689. UNIVERSAL JOINT. BERT O. RHODES, Kalamazoo, Mich. Filed Nov. 15, 1919. Serial No. 338,265. 5 Claims. (Cl. 64—102.)



5. In a universal joint, the combination of a joint member having a pair of journal pin arms, a journal pin removably secured in said arms with its journals projecting a second joint member having arms provided with integral journals, bushings non-rotatably secured to said journals, an annular coupling member formed of detachably connected sections, one of which is adapted to be slipped upon and to be removed from the arms of the first mentioned joint member when the journal pin is removed, the other being adapted to be slipped over the second mentioned joint member, and bearing members clamped between said coupling member sections.

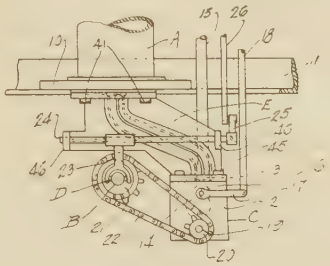
1,417,690. AUTOMATIC PLATE VALVE. MICHAEL RIESNER, Cincinnati, Ohio, assignor to Worthington Pump and Machinery Corporation, a Corporation of Virginia. Filed Apr. 13, 1920, Serial No. 373,609. Renewed Mar. 2, 1922. Serial No. 540,613. 18 Claims. (Cl. 251—119.)



1. The combination with a curved valve seat having valve supports at its ends, of a thin, flexible, normally curved plate valve cooperating with said seat to open and close a port therethrough, the ends of the valve normally resting freely on said supports, the valve flexing during this opening and closing movement and its ends being free to permit said flexing.

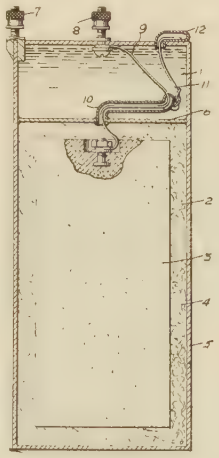
1,417,691. MANIFOLD BRACKET. EDGAR D. ROMANS, St. Paul, Minn., assignor to Grant Waldref, St. Paul, Minn. Filed Nov. 16, 1920. Serial No. 424,418. 4 Claims. (Cl. 138—9.)

1. In combination with a hoist cylinder, a bracket at the lower end of said cylinder and a pump supported by said bracket, said bracket being formed with a duct having an



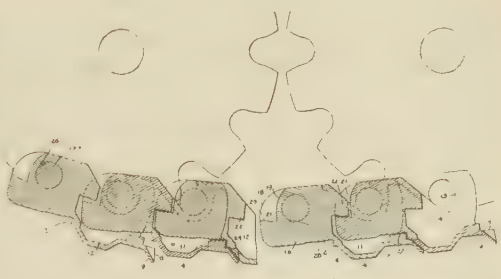
anti-leaking lining therein forming a connection between the cylinder and the pump.

1,417,692. BATTERY. DAVID ROSEN, New York, N. Y. Filed Nov. 13, 1920. Serial No. 423,831. 3 Claims. (Cl. 204—38.)



1. A dry battery casing comprising a plurality of spaced chambers, one of said chambers adapted to contain liquid and the other of said chambers adapted to contain solid material, a diaphragm between said chambers, a valve in said diaphragm, and means for opening the valve when desired to cause the association of the liquid with the solid material.

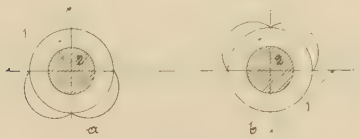
1,417,693. LINK FOR TRACTOR TRACKS. ROBERT L. SAVAGE, San Francisco, Calif. Filed Oct. 16, 1919. Serial No. 331,112. 2 Claims. (Cl. 305—10.)



2. An endless track for tractors comprising a plurality of links joined to one another, each of said links compris-

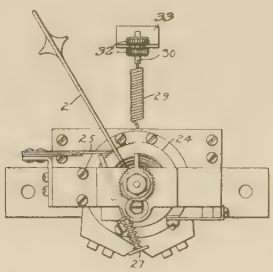
ing a tread portion, upright spaced walls extending longitudinally on the tread portion and having inclined upwardly opening pin receiving slots in the upper edges thereof, a wall extending between and outwardly from certain ends of the first named walls, a pin carried by the last named wall and projecting from opposite sides thereof for engagement in the slots of the next adjacent link and horizontally disposed shoulders formed on opposite ends of said last named wall and adapted for engagement with similar shoulders of adjacent links of the track.

1,417,694. FOUR-STROKE-CYCLE INTERNAL-COMBUSTION ENGINE. FIRMIN SMAL, Couthuin, Belgium. Filed Aug. 12, 1921. Serial No. 491,858. 1 Claim. (Cl. 123—53.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



The improvement relating to four-stroke internal combustion engines having valves controlled by a cam shaft and comprising one or more pairs of parallel cylinders each pair working on the one crank, characterized by a valve cam shaft having two sets of cams, each of which may be brought into action at will and separately to operate in such a manner the valves of each pair of cylinders as to produce, upon each corresponding crank, by the first set an alternate explosion in the cylinders of each pair, for every two strokes, and by the second set, a simultaneous explosion in the two cylinders every four strokes, substantially as and for the purpose hereinbefore set forth.

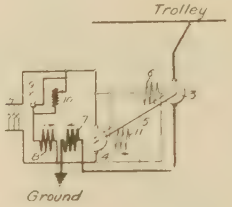
1,417,695. ELECTRICAL MEASURING INSTRUMENT. BENJAMIN H. SMITH, Turtle Creek, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed July 28, 1917. Serial No. 183,333. 5 Claims. (Cl. 73—151.)



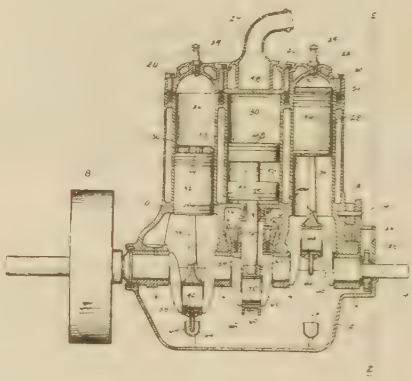
1. A measuring instrument comprising a pivoted indicating member, a yieldable positioning member therefor adjustably secured to the indicating member whereby the indicating member may be angularly adjusted with respect to the positioning member, and means for adjusting the tension of the positioning member.

1,417,696. CAR-LIGHTING SYSTEM. GERALD F. SMITH, Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed June 9, 1919. Serial No. 302,764. 5 Claims. (Cl. 171—224.)

1. A substantially constant-voltage lighting system comprising a direct-current motor-generator set having a field winding for the motor connected to the generator brushes and having a field winding for the generator connected in series relation with the motor armature, the generator magnetic circuit having a relatively low degree of saturation.



1,417,697. INTERNAL-COMBUSTION ENGINE. FREDRICK A. STANDIFORD, Coldwater, Kans. Filed Jan. 2, 1918. Serial No. 210,065. 2 Claims. (Cl. 123—59.)



1. In an internal combustion engine, a pair of combustion cylinders, a pump cylinder arranged in communication with said combustion cylinders, a crank shaft provided with a pair of oppositely moving pistons operating in said combustion cylinders, said combustion cylinders each having fuel inlet and exhaust ports maintained closed by the corresponding piston and adapted to be uncovered at about the end of the explosion stroke of the piston, said pump cylinder having its opposite ends in communication with said inlet ports respectively, and a double-acting plunger operating within said pump cylinder to deliver fuel charges therefrom alternately through said inlet ports to the combustion cylinders and to expel the exhaust gases therefrom, each of said pistons having its working face formed with deflecting surfaces arranged to deflect the incoming gas toward the opposite end of the corresponding cylinder and the exhaust gases in the direction of the exhaust ports of that cylinder.

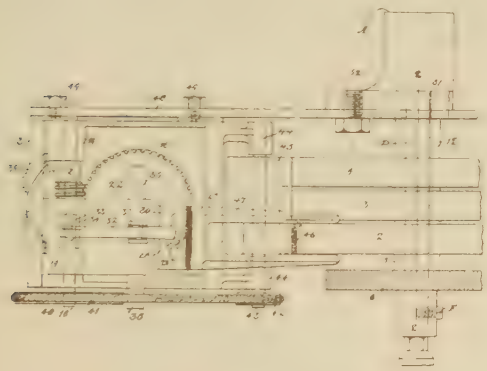
1,417,698. TEMPER SCREW. JOSEPH STROBEL, Tulsa, Okla. Filed July 8, 1920. Serial No. 394,747. 4 Claims. (Cl. 255—15.)

1. The combination with a temper screw, of a split bearing removably carried therein, the opposed faces of said bearing being curved to form an annular socket, a

cross bar adapted for engagement with a walking beam, and a ball formed on said bar engageable with the annular

socket of the bearing to form a universal swivel connection between said parts.

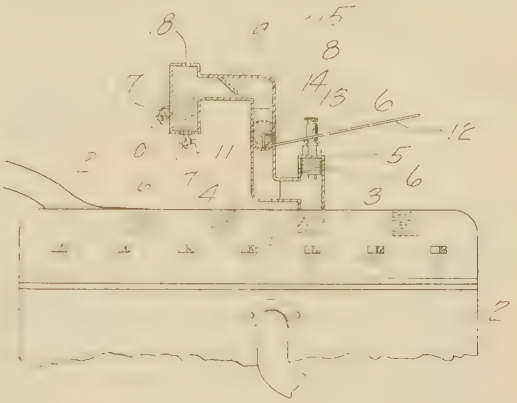
1,417,699. COMBINED REVERSING GEAR AND BELT SHIFTER AND TIGHTENER MECHANISM FOR POWER-DRIVEN MACHINES. WILLIAM HENRY SUMBLING, Toronto, Ontario, Canada, assignor to Sumbling Machinery Company, Limited, Toronto, Ontario, Canada. Filed July 19, 1920. Serial No. 397,212. 8 Claims. (Cl. 74—21.)



1. A reversing-gear comprising the combination of two bars; a suitable frame in which said bars are held against rotation; three pulleys mounted to freely rotate on one of said bars, the central pulley being essentially an idler; a gear-wheel associated with one of the outside pulleys to rotate therewith, and constantly in mesh with a gear-wheel mounted to freely rotate on the other of said bars; a pinion associated with said second-mentioned gear-wheel to be rotated thereby, and a pinion associated with the other outside pulley and designed to be rotated thereby, the said pinions adapted to mesh with a toothed rack for the purpose specified.

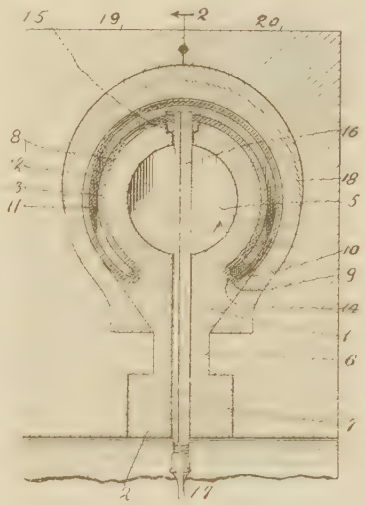
1,417,700. AUTOMOBILE ALARM. STEELE L. THOMPSON, Home, Pa. Filed Aug. 6, 1921. Serial No. 490,409. 1 Claim. (Cl. 116—138.)

In combination with a spark plug socket of an automobile engine of the internal combustion type; an alarm for the automobile, same comprising a pipe plug for seating in the socket, the outer end thereof being adapted to receive a spark plug in ordinary manner, and the said pipe plug having a branch pipe extended from one side; pipe joints extended from the branch pipe; a water well at the end of the connected joints for imparting a siren effect to the alarm, said well having drain cocks and a water port for filling and emptying the well; a rotary valve set in the pipe line and normally held closed; means



extended to the dash for opening said valve; and a vibrating membrane set in the pipe line.

1,417,701. APPARATUS FOR MAKING PNEUMATIC TIRES. ELNO H. TRUMP, Sebring, Ohio, assignor of one-half to John M. Alderfer, Akron, Ohio. Filed Nov. 24, 1917. Serial No. 203,722. 19 Claims. (Cl. 18—45.)



11. A tire building core comprising an annular rigid core conforming in shape to the tire to be built thereon, and an inflatable, elastic, non-metallic sheath positioned around the peripheral portions of said core.

1,417,702. PROCESS OF PRODUCING CYANIDES. FOORD VON BICHOWSKY and JOHN HARTHAN, Glendale, Calif. Filed Oct. 25, 1920. Serial No. 419,458. 4 Claims. (Cl. 23—13.)

1. The production of cyanides of the alkali metals which consists in heating titanium nitrides with a carbide of iron in the absence of free carbon and in the presence of an alkali metal salt.

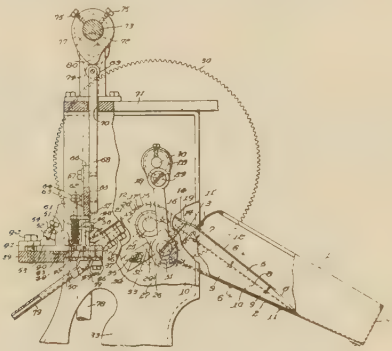
1,417,703. DEVICE FOR INDICATING CURVES. WALTER WAFFENSCHMIDT, Karlsruhe, Germany. Filed Dec. 21, 1921. Serial No. 523,937. 15 Claims. (Cl. 33—144.)

1. A device of the class described, comprising two end members adapted to move along a track, a substantially rectilinear connecting member extending from one of said

end members to the other, an intermediate member likewise adapted to move along the track, means for causing said intermediate member to move together with said end

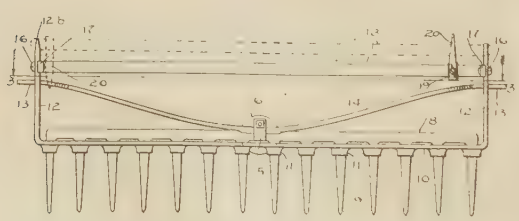
members, and an indicating member movable transversely relatively to said intermediate member and engaging said connecting member.

1,417,704. MULTIPLE STAPLING MACHINE. HARRISON B. WALTER, Philadelphia, Pa., assignor to Fibre Container Company, a Corporation of Pennsylvania. Filed Aug. 19, 1919. Serial No. 318,546. 4 Claims. (Cl. 1—3.)



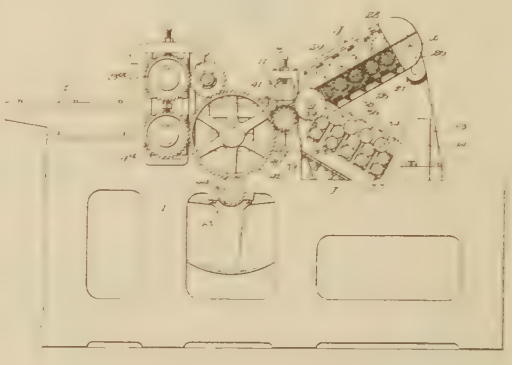
3. In a stapling machine comprising a feeding, driving and clinching means, the combination of staple holding and separating means comprising an angularly reciprocated hopper, a plurality of tapered longitudinal members secured within said hopper and at an inclination to the bottom thereof, said members adapted to receive staples in straddled position upon the reciprocation of said hopper and adapted to guide the same longitudinally thereover, said hopper being provided with openings adjacent said members through which said staple guiding members project and through which said staples are adapted to pass, bridge members connected to said guiding members and adapted to guide staples therefrom to staple receiving and supporting positions, said members provided with lateral overhanging portions, trip members adapted to receive and support said staples and picking-off means adapted to feed a single multiple of said staples from said trip members to said driving and clinching means.

1,417,705. GARDEN MARKER FOR RAKES. EDWARD WELSH, Wausau, Wis. Filed Mar. 28, 1919, Serial No. 285,726. Renewed Jan. 25, 1922. Serial No. 531,824. 2 Claims. (Cl. 97—82.)



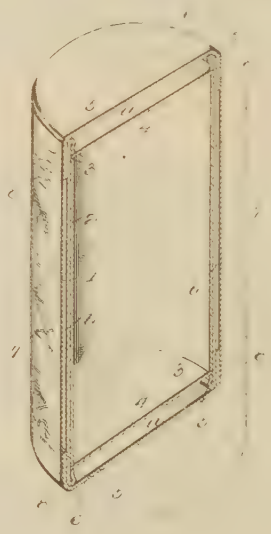
1. The combination with a rake handle and its head of an attachment for marking ground to be seeded, said attachment comprising two arms extending upwardly beyond the rake head, a straight bar connecting said arms and secured slightly away from their ends, and a marking finger slidably secured upon said bar.

1,417,706. METAL-EXPANDING MACHINE. HERBERT E. WHITE, Youngstown, Ohio, assignor to The Truscon Steel Company, Youngstown, Ohio, a Corporation of Michigan. Filed Dec. 11, 1920. Serial No. 430,031. 16 Claims. (Cl. 164—6.6.)



1. A metal expanding machine including a pair of divergent expander jaws, guides at the edges of the jaws having an interlocking engagement with the edge portion of the sheet, and feeding means for advancing the sheet over the guides.

1,417,707. PAPER CONTAINER FOR GREASELIKE SUBSTANCES. WILBUR L. WRIGHT, Fulton, N. Y., assignor to Sealright Co., Inc., Fulton, N. Y., a Corporation of New York. Filed June 20, 1918. Serial No. 240,935. 2 Claims. (Cl. 206—46.)



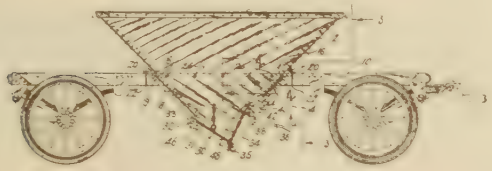
2. A grease package embodying a surrounding exterior label sheet protected by grease barriers from discoloration by seepage of grease from the interior of the package, said package consisting of a paper material can having sealed closures at both ends and projecting end flanges, and slip caps exteriorly fitting both ends of the can and covering said closures so as to cushion the can ends and form grease barriers, substantially as described.

1,417,708. RENDERING PAPER AND PAPER CONTAINERS GREASEPROOF. WILBUR L. WRIGHT, Fulton, N. Y., assignor to Sealright Co., Inc., Fulton, N. Y., a Corporation of New York. Filed July 11, 1918. Serial No. 244,472. 17 Claims. (Cl. 91—68.)

2. A grease-proofing composition containing sugar approximately to the point of saturation and a binder.

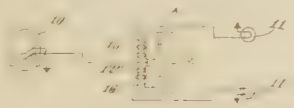
7. Paper material having a coating produced by the application thereto of a composition comprising an adhesive soluble in water and sugar approximately to the point of saturation.

1,417,709. SPREADER FOR ROAD CONSTRUCTION. CHARLES W. YELM, Denver, Colo., assignor of one-half to Maurice G. Kirkpatrick, Denver, Colo. Filed Dec. 16, 1918. Serial No. 267,064. 6 Claims. (Cl. 298—30.)



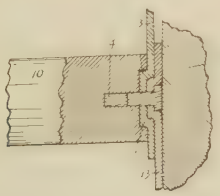
1. In a spreader, the combination with a chassis having wheels, said chassis having side supporting rails, of a hopper upon the chassis positioned between the front and rear wheels and extending above and below and beyond the side rails, said side rails passing through the hopper walls and through the carrying space therewithin and spaced substantially from the side walls of said hopper, the width of the hopper being independent of the width of the chassis, said hopper being carried and supported directly by said side rails.

1,417,710. SYSTEM OF ELECTRICAL DISTRIBUTION. EDWIN C. BALLMAN, St. Louis, Mo., assignor to Valley Electric Company, Wilmington, Del., a Corporation of Delaware. Filed Dec. 18, 1916. Serial No. 137,680. 10 Claims. (Cl. 171—242.)



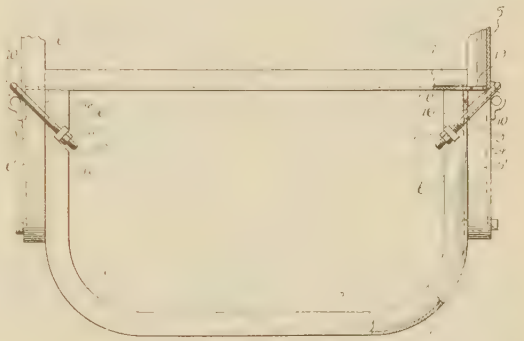
5. In a system of electrical distribution, an alternating current generator, current consuming devices connected in shunt relation and in series with said generator, and a reactance device comprising a plurality of coils, a core for said coils adapted to form part of a plurality of magnetic circuits, and a member adapted to form a return path for a plurality of said magnetic circuits.

1,417,711. RIVETING TOOL. FRANK A. BECKER and ALBERT P. ANDLAUER, Kansas City, Mo. Filed Dec. 27, 1920. Serial No. 433,301. 1 Claim. (Cl. 78—46.)



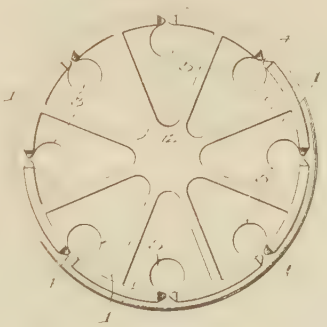
A riveting tool, including a shank, a recess at one end of said shank in diameter equal to or slightly in excess of the diameter of a rivet head plus twice the thickness of a desired assemblage of sheet metal and an inner hole concentric with and connecting to said recess.

1,417,712. BUMPER. WALTER A. BOCKIUS, Wilmette, Ill., assignor to The Beckley-Ralston Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 15, 1921. Serial No. 507,890. 13 Claims. (Cl. 293—55.)



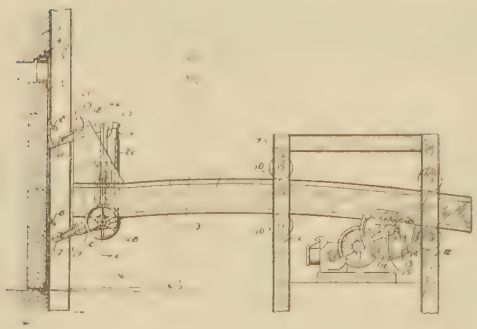
2. The combination with the side beams of a chassis frame of automotive vehicles, inner abutments on said beams and outer abutments thereon, of a bumper structure comprising a bumper bar having parallel supporting limbs engaging against the inner sides of said beams at the front ends thereof and engaging also against said inner abutments, and strap bolts anchored against said outer abutments and receiving said beams and limbs, said strap bolts extending diagonally to exert longitudinal and lateral pull components on said limbs to secure them against said beams and said inner abutments.

1,417,713. BEAD THREADER. WILLIAM W. BOLLS, Washington, D. C. Filed Apr. 2, 1919, Serial No. 287,095. Renewed Oct. 27, 1921. Serial No. 510,946. 9 Claims. (Cl. 223—52.)



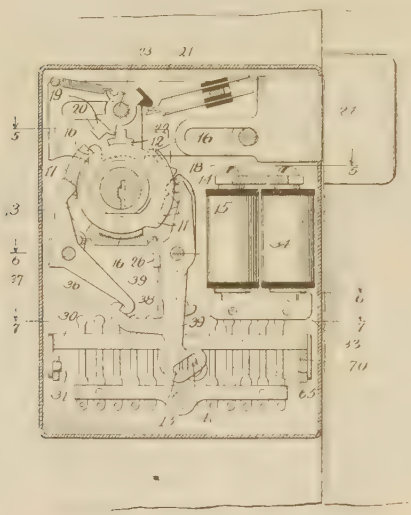
1. In a bead threader, a container having a bead holding compartment and a bead holding well at the outer end thereof communicating therewith and extending below the bottom of the compartment so that beads placed in the compartment will enter the well and be held therein under pressure from the beads in the compartment and a wall forming the outer end of the well and the outer end of the compartment and having a needle receiving slot so that a needle may be thrust laterally across the slot to enter the well.

1,417,714. DOOR-HANDLING MECHANISM. WILLIAM E. BOYER, Cleveland, Ohio, assignor to Samson D. Wright, Cleveland, Ohio. Filed Apr. 5, 1920. Serial No. 371,454. 5 Claims. (Cl. 254—84.)



1. Mechanism for handling the doors of coke ovens, including a beam, means on said beam for engaging the door, and means for guiding said beam bodily through a curved path so as to move one part of the door outwardly at a greater rate of speed than another part thereof.

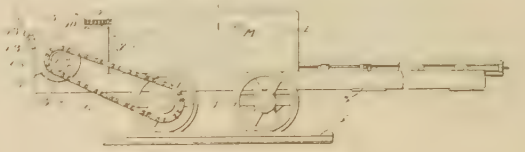
1,417,715. RECORDING LOCK. JAMES W. BRYCE, Binghamton, N. Y., assignor to International Time Recording Company of New York, Endicott, N. Y., a Corporation of New York. Filed June 26, 1920. Serial No. 391,972. 7 Claims. (Cl. 234—1.5.)



1. In a recording lock the combination with keys adapted to operate the same but otherwise having special conformation, of a series of key tumblers or plungers adapted to be moved or set in different permutations and combinations by the insertion of a key, circuits controlled by said plungers and running to a recorder, normally separated contacts in said circuits and means for closing the same controlled by the turning of a key in the lock.

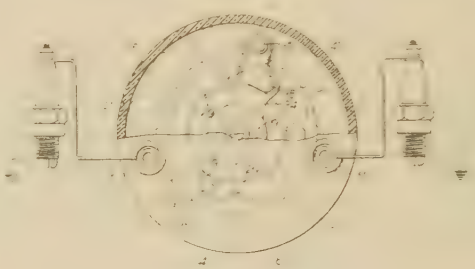
1,417,716. MINING MACHINE. FRANK CARTLIDGE, Claremont, N. H., assignor to Sullivan Machinery Company, a Corporation of Massachusetts. Filed June 24, 1918. Serial No. 241,723. 16 Claims. (Cl. 105—64.)

1. The combination with a wheeled truck and a mining machine mounted thereon and including a motor, of a hydraulic motor operatively connected with the wheels of said truck, a pump driven by said mining machine motor for supplying liquid to said hydraulic motor, and valve



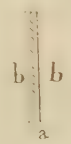
mechanism between said pump and said hydraulic motor for controlling the movements of said truck.

1,417,717. DISTRIBUTOR FOR IGNITION APPARATUS. FRANK CONRAD, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 13, 1919. Serial No. 323,570. 7 Claims. (Cl. 123—148.)



1. In a distributor device, the combination with a plurality of contact terminals and two stationary and approximately semi-annular contact plates adapted to be periodically energized, of a two-part rotatable distributor arm having a plurality of brushes on each part, one of the brushes on each part being adapted to engage the contact terminals successively and the other brush on each part being adapted to engage the stationary contact plates successively.

1,417,718. DIAPHRAGM. ARTHUR FREDERICK RICHMOND COTTON, London, England. Filed Feb. 8, 1921. Serial No. 443,331. 7 Claims. (Cl. 181—32.)

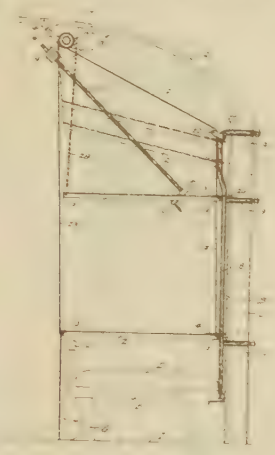


1. A vibratory diaphragm, composed of textile fabric stiffened by impregnation with celluloid by means of a solvent of the latter.

1,417,719. CONVERTIBLE DAY COACH AND SLEEPER. JOHN W. COVINGTON, Salt Lake City, Utah. Filed Aug. 6, 1918. Serial No. 248,593. 5 Claims. (Cl. 105—318.)

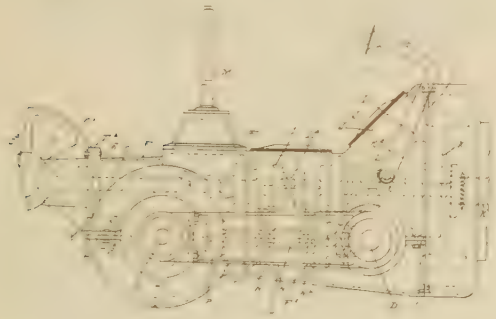
1. The combination with a supporting structure, of a berth mechanism, including vertical supports, a plurality of berth frames, means for slidably connecting the rear

edges thereof to the vertical supports, and a raising and lowering mechanism, for moving the berths simultaneously



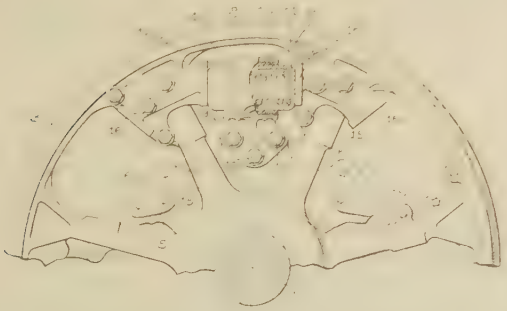
into and out of operative position the movement of the aisle edges being more rapid than the rear edges.

1,417,720. UNIT CONSTRUCTION FOR TRACTORS. GEORGE W. DUNHAM, Detroit, Mich., assignor to Graham Brothers, Evansville, Ind., a Corporation of Indiana. Filed Mar. 8, 1916. Serial No. 82,995. 7 Claims. (Cl. 74—56.)



1. The combination of an engine, a jack-shaft and a transmission there-between including parallel gear shafts, and a two part housing supporting said engine, jack-shaft and transmission, one part of said housing being removable and one of said shafts being removable therewith.

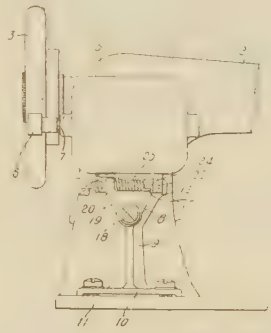
1,417,721. RESILIENT DRIVING CONNECTION. GEORGE M. EATON, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 25, 1921. Serial No. 510,354. 8 Claims. (Cl. 105—131.)



1. The combination with a driving member and a driven member, of a spring element supported by one of said members and provided with a retaining means that is movable, under abnormal pressure, in the direction of reaction.

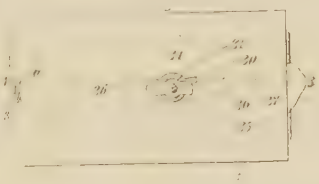
5. The combination with a driving member and a driven member, of a spring element held in operative position on the driving member by a frictionally-held member.

1,417,722. MOUNTING FOR SEWING-MACHINE MOTORS. RALPH EHRENFELD and HAROLD G. CALDWELL, Wilkinsburg, Pa., assignors to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed July 5, 1919. Serial No. 308,734. 12 Claims. (Cl. 74—26.)



1. In combination with a driven machine comprising a driven wheel, a motor provided with a drive wheel adapted to engage said driven wheel, and a support for said motor comprising means for permitting movement thereof with respect to said driven machine in a plurality of planes disposed at an angle to each other, and means for defining the path of movement of said motor.

1,417,723. SAFETY SWITCH AND FUSE BOX. CHARLES L. EIDLITZ, New York, N. Y., assignor to Metropolitan Electric Manufacturing Company, a Corporation of New Jersey. Filed Aug. 14, 1919. Serial No. 317,515. 4 Claims. (Cl. 200—50.)

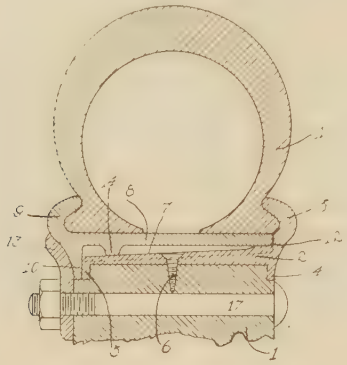


1. In a safety switch and fuse box, the combination of a casing and a cover therefor, a switch within the casing and having an operating member projecting through the cover when the cover is in closed position, the member and opening through which it projects being so shaped as to permit the cover to be opened when the member is in certain positions and prevent it when in all other positions.

1,417,724. SECTIONAL RIM FOR PNEUMATIC TIRES. WILLIAM FLOOD, Detroit, Mich., assignor of one-half to Robert Vickers, Detroit, Mich. Filed May 3, 1919. Serial No. 294,363. 2 Claims. (Cl. 152—21.)

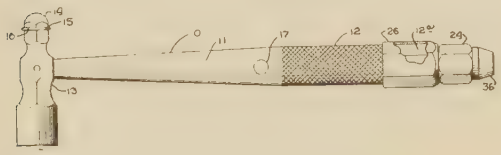
1. The combination with a wheel and an inflatable tire therefor, of a two part rim, one part being in fixed relation with the wheel and the other part being removable and engaging over and supported in spaced relation with the fixed part, said fixed part having a tire engaging flange on one side and the peripheral face thereof being formed at an angle to the axis and sloping away from the flange, the

removable part having a tire engaging flange on the outer side complemental to the flange of the fixed part and the opposite edge seating adjacent the flange of the fixed part,



said removable part having an inner circumferential rib near its flange, said seat and rib maintaining the two rim parts in spaced relation, and detachable means for holding the removable part in position on the said fixed part.

1,417,725. TOOL KIT. GEORGE R. FULLENWIDER, Maple Valley, Wash., assignor of one-half to Olof Olson, Maple Valley, Wash. Filed Dec. 19, 1919. Serial No. 346,007. 15 Claims. (Cl. 7—8.)



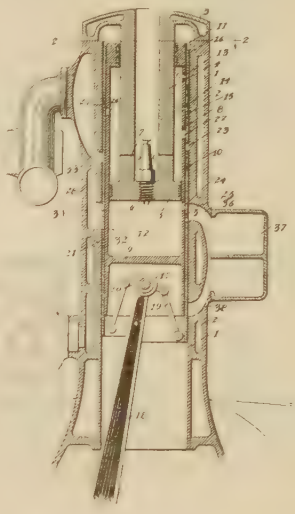
1. A tool kit comprising a body having a hollow handle and a transverse head, and a plurality of associated work-engaging implements adapted for assembly within the handle and selectively upon the head for operative manipulation by the body, and including means for retaining said body and implements against relative rotation when assembled.

1,417,726. MOTOR-DRIVEN HANDSAW. CHARLES M. GEIGER, New York, N. Y., assignor of one-half to Alfred L. Flynn, New York, N. Y. Filed June 23, 1920. Serial No. 390,991. 1 Claim. (Cl. 143—68.)

A portable saw comprising an electric motor having a plate secured thereto at its inner end, gearing on said inner end of said plate operatively connected to the motor shaft, a barrel supported on the outer end of said plate, said barrel formed with a hand guard at its extremity, a plunger operating in said barrel and a pitman connecting said gearing with said plunger for reciprocating the same, and a saw secured to said plunger.

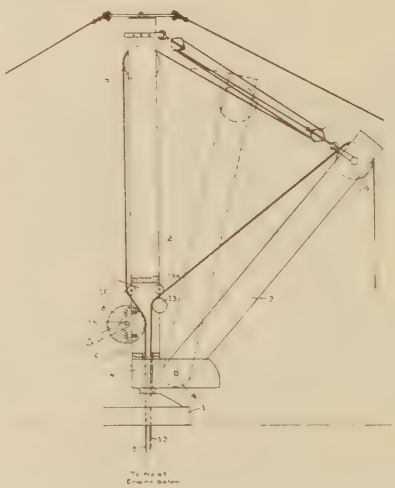
1,417,727. INTERNAL-COMBUSTION ENGINE. GEORGE BALDWIN GERAU, Miami, Fla. Filed Jan. 29, 1920. Serial No. 354,868. 8 Claims. (Cl. 123—65.)

1. An internal combustion engine, comprising a pair of cylinders, with integral connecting and separating webs arranged to define a gas reservoir for each cylinder and including a cylinder intake port leading to each explosion chamber; and a piston in each cylinder one forcing fresh gas on the inward stroke, into the reservoir, cylinder port



and explosion chamber of the other cylinder when that piston nears the extremity of its outward stroke, and vice versa.

1,417,728. GUY DERRICK. JOHN ROBERT GILL, Birmingham, Ala. Filed Dec. 18, 1920. Serial No. 431,688. 6 Claims. (Cl. 212—58.)

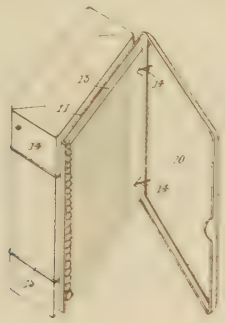


1. The combination with a guy derrick mounted at an elevation above the hoisting engine controlling it, of a hoist cable leading upwardly to the derrick for controlling the derrick boom, and an auxiliary overhauling drum adjacent to the derrick about which said cable is wound and which is operable to relieve the boom of the counter-balancing weight of the cable.

1,417,729. MATCH PACKET OR CARTON. ANDREW W. GRAHAM, Buffalo, N. Y., assignor to City Trust Co. Branch of The Marine Trust Co. of Buffalo, trustee, Buffalo, N. Y. Filed Dec. 8, 1920. Serial No. 429,239. 3 Claims. (Cl. 206—48.)

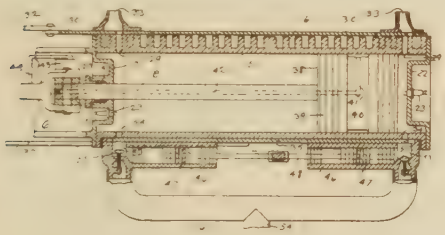
3. In a carton, a body portion formed of a piece of cardboard like material pressed to form a shallow, tray like body, a cover portion formed integrally with the body portion and hingedly connected thereto, and a plurality of elastic strands each having one end connected to the cover adjacent its free edge and the other end passing through

the cover adjacent the body and connected to the body whereby the strands yieldably hold the parts closed and



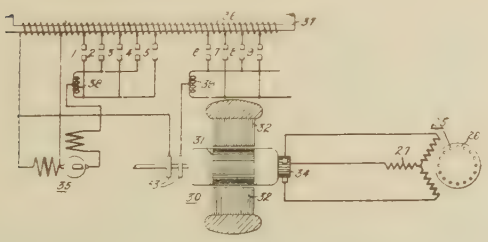
whereby that portion of the strands crossing the cover forms means for attaching the device to a package.

1,417,730. GAS ENGINE. THEODORE W. HAINLINE, Portland, Oreg., assignor of one-half to Robert S. Wittmeier, Denver, Colo. Filed May 11, 1920. Serial No. 380,690. 4 Claims. (Cl. 123—61.)



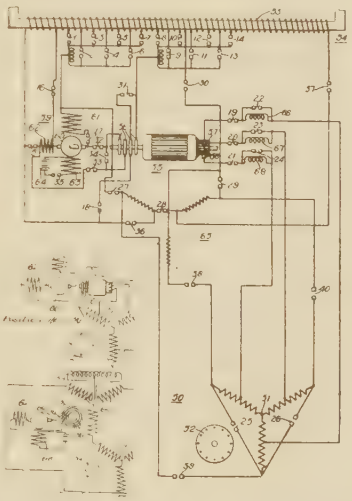
1. In an internal combustion engine, a combustion cylinder, a piston working in the cylinder, the cylinder having an inlet and an exhaust port at each end, firing means at each end of the cylinder, charge compressing means operating to compress and deliver a charge alternately to the opposite ends of the cylinder through the inlet ports, valves controlling the inlet and exhaust ports, and means operating to actuate the said valves in timed relation to the reciprocation of the piston and acting to maintain the exhaust port at either end of the cylinder open and the corresponding inlet port closed during the period of movement of the piston in the direction of the corresponding end of the cylinder and until it has reached approximately the limit of its stroke, to then move the exhaust valve to closed position, and, simultaneously with and during and immediately following the movement of the exhaust valve to closed position, move the inlet valve momentarily to open position.

1,417,731. MEANS FOR AND METHOD OF ACCELERATING INDUCTION MOTORS. RUDOLF E. HELLMUND, Swissvale, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 10, 1918. Serial No. 249,335. 11 Claims. (Cl. 172—274.)



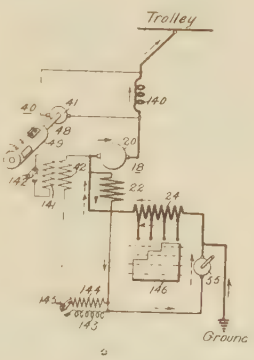
10. The method of accelerating an induction motor from a source of variable frequency and variable voltage which consists in varying first the voltage and then the frequency during each step of the acceleration of said induction motor.

1,417,732. MEANS FOR AND METHOD OF ACCELERATING INDUCTION MOTORS. RUDOLF E. HELLMUND, Swissvale, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 10, 1918. Serial No. 249,336. 16 Claims. (Cl. 172—274.)



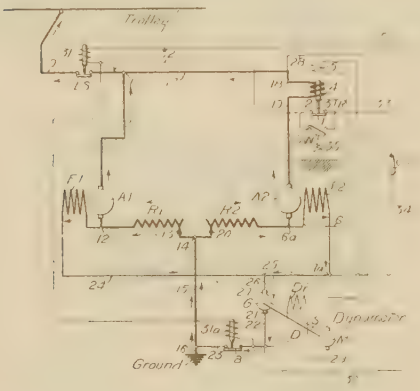
16. The method of accelerating an induction motor associated with a frequency changer which consists in taking steps tending to vary first the voltage and then the frequency of said frequency changer during each step of the acceleration of said induction motor and temporarily inserting a current-limiting device prior to said voltage-varying operation.

1,417,733. SYSTEM OF CONTROL. RUDOLF E. HELLMUND, Swissvale, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed May 7, 1919. Serial No. 295,265. 17 Claims. (Cl. 172—179.)



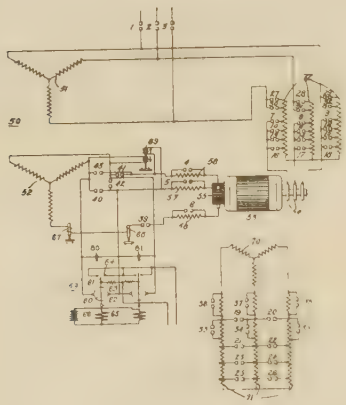
4. In a system of control, the combination with an electric motor having an armature and field-exciting means, of an impedance connected in the armature circuit, a plural-coil transformer having one coil connected in a circuit including said field-exciting means, and a relay device of the motor type for governing the motor operation and having its co-operating windings respectively connected in circuit with another transformer coil across said impedance and connected across said field winding.

1,417,734. SYSTEM OF CONTROL. RUDOLF E. HELLMUND, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed July 5, 1919. Serial No. 308,771. 17 Claims. (Cl. 172—179.)



1. In a system of regenerative control, the combination with a momentum-driven dynamo-electric machine having an armature and a field-magnet winding, of means for opening the regenerative circuit under predetermined operating conditions wherein the ratio of electrical and magnetic losses to machine output exceeds selected limits.

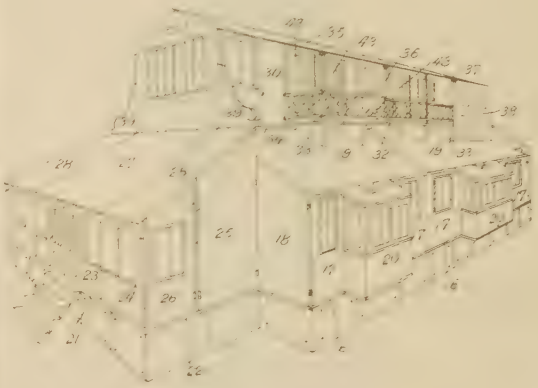
1,417,735. SYSTEM OF SPEED CONTROL FOR INDUCTION MOTORS. RUDOLF E. HELLMUND and HERBERT G. JUNGK, Swissvale, Pa., assignors to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 26, 1918, Serial No. 251,385. Renewed Apr. 13, 1922. Serial No. 552,219. 22 Claims. (Cl. 172—274.)



22. The method of accelerating an induction motor associated with a frequency changer which consists in taking steps tending to vary first the frequency and then the voltage of said frequency changer during each step of the acceleration of said induction motor.

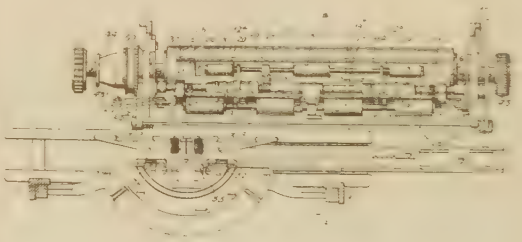
1,417,736. MOVABLE BUNGALOW. EVA CONSTANCE HEYGATE, Tankerton, England. Filed July 5, 1921. Serial No. 482,404. 7 Claims. (Cl. 20—2.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

1. A movable bungalow consisting of a main floor, wheels supporting the main floor, partitions fixed to the upper side of the main floor, a superstructure capable of sliding over



the partitions, a floor in the superstructure, and partitions hinged to the floor in the superstructure.

1,417,737. TYPEWRITING MACHINE. FREDERIC W. HILLARD, Tottenville, N. Y. Filed Mar. 26, 1921. Serial No. 455,928. 28 Claims. (Cl. 197—127.)

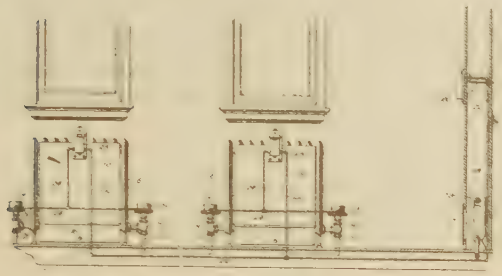


1. In a visible writing typewriter, the combination with the carriage and its platen, of a rear feed roll device, a front feed roll device, and a deflector apron, means for pivoting and controlling the deflector apron wholly independently of said feed roll devices, and means for normally spring-pressing the deflector apron to the platen, said spring pressure means exerting its pressure on the deflector apron to thereby hold it at the platen wholly independently of the position of the feed roll devices.

1,417,738. APPARATUS FOR THERMOSTATIC CONTROL. NELS HOFSTAD, Chicago, Ill., assignor to Johnson Service Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 18, 1921. Serial No. 453,338. 6 Claims. (Cl. 236—37.)

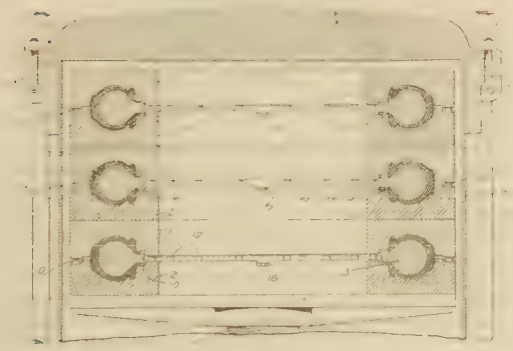
1. The combination with a room to be heated and ventilated, of an air duct leading directly thereto from out of doors; a regulable heating element in said room operative in part to heat air entering through said duct and in part to heat the air in the room by direct radiation; a thermostat responsive to the temperature of the heated air discharging from said duct and connected with said heating element to regulate the same, said thermostat serving to maintain said temperature substantially constant; and a

second thermostat subject to room temperature and operatively connected with said heating element, said second



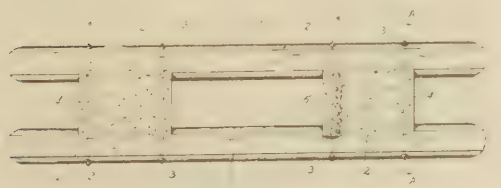
thermostat serving, when room temperature is sub-normal, to increase the heating effect of said element despite any regulative tendency of the first thermostat.

1,417,739. METHOD AND APPARATUS FOR MANUFACTURING TIRES. ERNEST HOPKINSON, New York, N. Y. Filed Apr. 28, 1921. Serial No. 465,125. 16 Claims. (Cl. 18—17.)



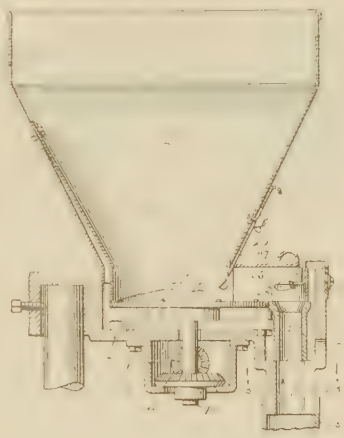
1. That method of curing tire casings in sectional molds, which includes, subjecting the casings to vulcanizing treatment at first with the sections of the molds held separated and thereafter with the sections of the molds closed and exerting a substantial compacting pressure on the casings.

1,417,740. SLED FOR DONKEY ENGINES. GEORGE W. IVES, Milwaukie, Oreg. Filed Aug. 30, 1920. Serial No. 407,051. 3 Claims. (Cl. 280—19.)



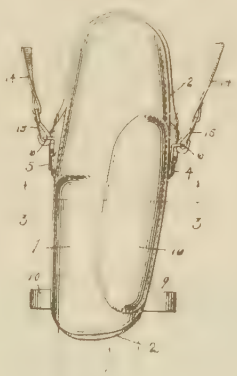
1. A sled for donkey engines, comprising a pair of runners of rough logs hewn on top to a level surface, a reinforced concrete slab cast in place between the runners at each end of the slab, the upper surface of said slab being level with the top of the runners, and bolts extending through the concrete from one side of the runners to the other.

1,417,741. AUTOMATIC FEEDER. ARON JOHNSON, Brooklyn, N. Y. Filed June 12, 1920. Serial No. 388,672. 6 Claims. (Cl. 113—113.)



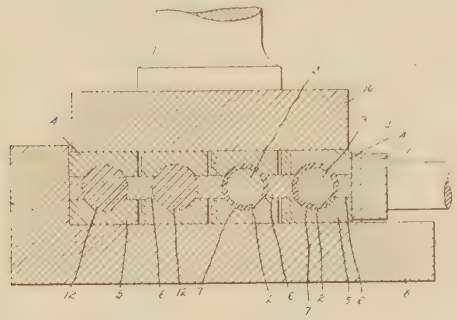
1. Automatic feeding apparatus comprising a frame provided with an outlet, a plate therein, means for rotating said plate, a vibrator plate therein and contiguous the rotary plate provided with an outlet alining with the frame outlet, and means for vibrating said plate.

1,417,742. KNEE BOOT. JAMES D. KELLER, Detroit, Mich. Filed Nov. 9, 1921. Serial No. 513,886. 3 Claims. (Cl. 54—82.)



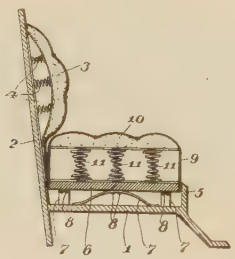
2. A knee boot consisting of a body cushioned portion having means to secure it to the leg of the animal and a resilient pad on the exterior of the boot in the rear of the middle portion thereof, said pad being oblong with rounded ends and with its greatest dimension upright when the boot is in position and tapering from front to rear.

1,417,743. PROCESS AND APPARATUS FOR FORMING LAMINATED RODS AND TUBES. WILLARD H. KEMPTON, Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 8, 1918. Serial No. 257,387. 12 Claims. (Cl. 18—16.)



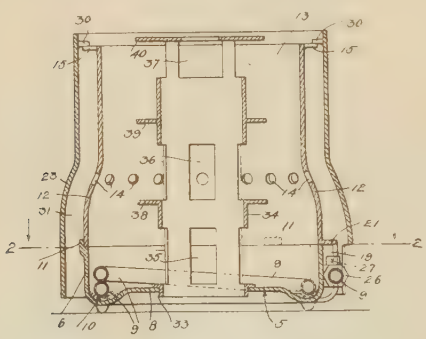
1. A mold for rods, tubes and the like comprising means for partially compressing a body to be molded, and means for limiting such compression, such limiting means being subsequently movable to complete the compression.

1,417,744. VEHICLE SEAT. ARTHUR ATWATER KENT, Ardmore, Pa. Filed Dec. 29, 1920. Serial No. 433,807. 5 Claims. (Cl. 155—50.)



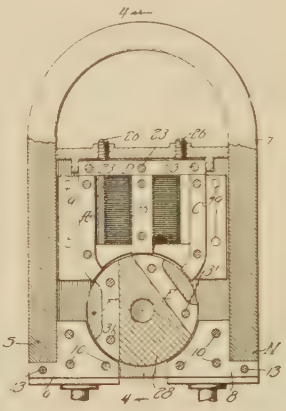
1. Seat structure for moving vehicles comprising a support, an inertia-imparting weight structure spaced therefrom and movable with respect thereto, and resilient means opposing relative movement of said weight structure and said support, whereby movement is retarded and its amplitude restricted.

1,417,745. GAS GENERATOR AND BURNER. JAMES A. KENWORTHY, Los Angeles, Calif. Filed June 6, 1921. Serial No. 475,327. 3 Claims. (Cl. 158—53.)



2. A generator and burner, comprising a sleeve closed at its bottom and open at its top forming a mixing chamber, a generator comprising a coil of pipe disposed in the bottom of said mixing chamber the discharge end of which being adapted to direct the vaporized oil therein at a tangent with the inner surface of the wall of said mixing chamber, the wall of said mixing chamber being provided with an air inlet aperture adjacent the discharge end of said generator, and a centrally disposed air supply tube extending through said mixing chamber provided with a plurality of apertures adapted to admit air into said mixing chamber.

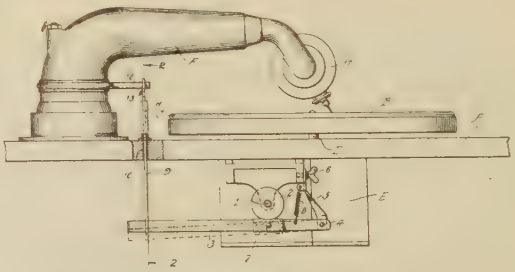
1,417,746. MAGNETO. ARTHUR C. KLECKNER, Racine, Wis., assignor to Webster Electric Company, Racine, Wis., a Corporation of Wisconsin. Filed Jan. 3, 1921. Serial No. 434,559. 16 Claims. (Cl. 171—209.)



1. In a magneto, a substantially E-shaped core structure, a winding on the middle leg of the core structure, a magnet, and inductor means adapted when in one position to establish a low reluctance path for flux between one of the magnet poles and the wound core leg, and between the other magnet pole and a first one of the unwound core legs, said inductor means adapted when in another position to establish low reluctance paths for flux between the first-mentioned magnet pole, and the second unwound core leg, and between the other magnet pole and the wound core leg.

11. A magneto comprising a magnet, pole pieces for the magnet provided with concave polar faces, a trifurcated core structure, the legs of which are provided with concave extremities concentric with the concave faces of the pole pieces, and a rotor, comprising a pair of inductor elements having extremities adapted to co-operate with the concave faces of the pole pieces and core structure legs.

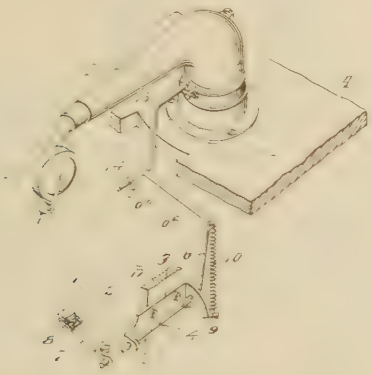
1,417,747. CONTROL MEANS FOR GRAPHOPHONES. EDWIN O. KLEMM, Dayton, Ohio, assignor to Klemm Manufacturing Company, Saginaw, Mich. Filed Dec. 6, 1919. Serial No. 343,106. 14 Claims. (Cl. 192—116.)



1. In graphophone mechanism, the combination with a record carrier, a reproducer arm having a reproducer to

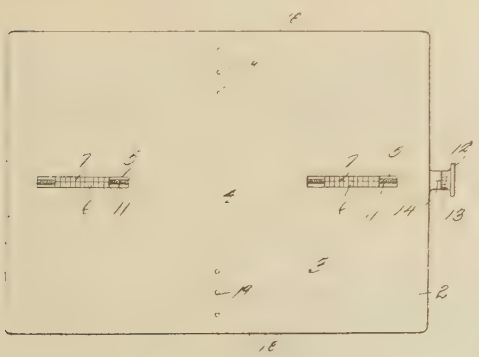
traverse a record upon said carrier, of a stopping device for the carrier, a trip on the arm, and a controlling detent connected with the stopping device, the last two parts being adapted to interlock for adjusting the trip relatively to the arm to predetermine the time when the stopping means shall become effective, and to cooperate to move the detent for retracting the stopping means to permit starting of the carrier for reproduction.

1,417,748. CONTROL MECHANISM FOR GRAPHOPHONES. EDWIN O. KLEMM, Dayton, Ohio, assignor to Klemm Manufacturing Company, Fenton, Mich., a Corporation. Filed Sept. 15, 1920. Serial No. 410,517. 8 Claims. (Cl. 192—116.)



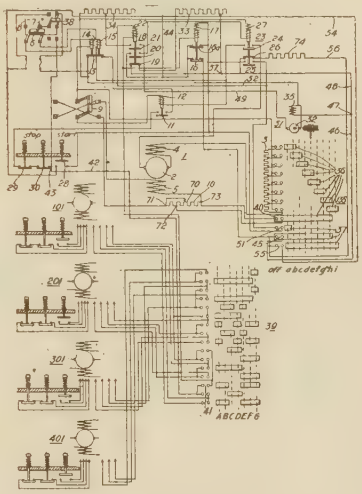
1. Graphophone mechanism comprising in combination, a record carrier and a reproducer to traverse a record on said carrier, driving mechanism for the carrier, stop means for the driving mechanism, including a brake member, an arm carrying the reproducer, a trip on the reproducer arm movable with and independently thereof, and a detent connected with the brake member to control the operativeness thereof, said detent embodying an arm having a portion to engage and cause movement of the trip relatively to the arm, and a second portion to engage the trip and to be restrained from movement by the trip, and spring means to move the detent arm when the restraining influence of the trip is removed therefrom.

1,417,749. NEGATIVE-REGISTERING DEVICE. ALEXANDER T. KOPPE, Chicago, Ill., assignor to Offset Directoplate Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 31, 1921. Serial No. 511,926. 16 Claims. Cl. 101—382.



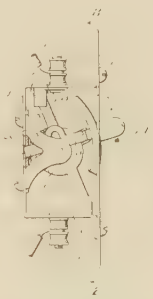
1. A multi-color negative registering device, said device comprising a base, a chase detachably disposed on the base and adapted to receive a negative, means for holding the negative in the chase, and adjustable gage means carried by the base and adapted to cooperate with centering marks on the negative.

1,417,750. MOTOR-CONTROL SYSTEM. EDWIN S. LAMMERS, Jr., Elyria, Ohio, assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed May 28, 1919. Serial No. 300,391. 7 Claims. (Cl. 172—179.)



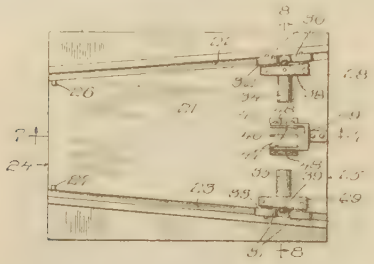
2. The combination with an electric motor, a source of energy therefor, and a controller therefor having a normal position, and normally operable from said position at a predetermined speed, of means for automatically returning said controller to said position at increased speed upon failure of power of said source.

1,417,751. SNAP SWITCH. LUDVIG LARSEN, Chicago, Ill. Filed Nov. 28, 1919. Serial No. 341,121. 2 Claims. (Cl. 200—68.)



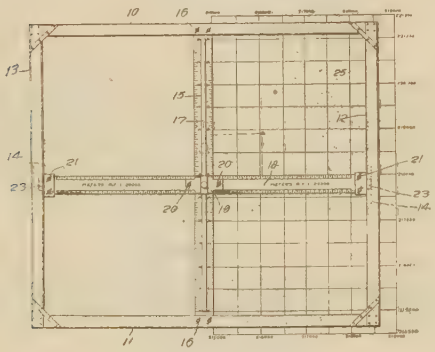
1. A snap switch comprising an insulating casing, a face plate secured thereto and being provided with an opening, a plurality of stationary contacts carried by said insulating casing, a bracket secured to said insulating casing, a switch arm pivotally mounted in said casing and adapted to oscillate in the opening of said face plate, a conducting frame pivotally mounted in said bracket and being provided with slots, said frame having arms adapted to engage said stationary contact plates, a spring stop secured to said bracket and having lugs adapted to enter either of said slots in said conducting frame, a spring carried by said bracket and having its ends engaging said switch arm and said conducting frame, and means carried by said switch arm for releasing said spring stops from the slots in said conducting frame after a predetermined movement of said switch arm, whereby said second named spring gives said conducting frame a quick throw.

1,417,752. METHOD AND MEANS FOR WRAPPING HAIR NETS. JOHN LINDGREN, Chicago, Ill. Filed Mar. 26, 1921. Serial No. 455,776. 20 Claims. (Cl. 93—2.)



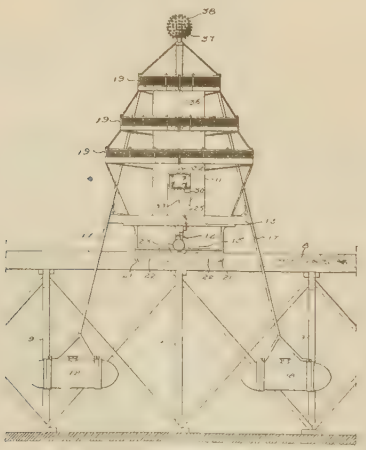
1. The method of wrapping hair-nets, which comprises placing the net upon a sheet of paper or the like, then rolling said sheet with the net inside to a cylindrical shape, and then flatting and folding said cylindrical shape.

1,417,753. PLOTTER. WILLIAM C. LINEAWEAVER, Fort Sill, Okla., assignor of one-half to Worthington Swift, Lawton, Okla. Filed June 4, 1921. Serial No. 475,058. 4 Claims. (Cl. 33—80.)



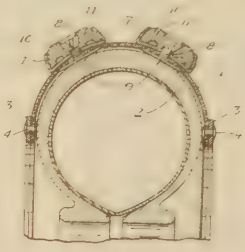
1. A plotter comprising a rigid frame, a bar extending across the frame and rigidly secured to opposite members of the frame, and a rule slidable along and relative to the bar and to the frame sections in parallelism with the bar.

1,417,754. AMUSEMENT DEVICE. SALVATORE LIUNI, Philadelphia, Pa., assignor of one-third to Raymond Koon and one-third to Domenico Caimi, both of Philadelphia, Pa. Filed Sept. 12, 1921. Serial No. 500,118. 9 Claims. (Cl. 104—63.)



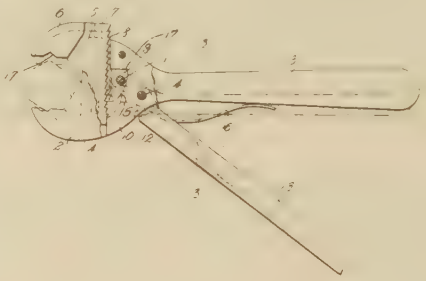
1. A device of the character described including means providing a runway having an undulated upper surface; a carriage having a single ball adapted to run on said surface of the runway; and counter-balancing means for said carriage; substantially as described.

1,417,755. PNEUMATIC-TIRE PROTECTOR. PHILIP LOME, Chicago, Ill. Filed Nov. 9, 1921. Serial No. 513,897. 6 Claims. (Cl. 152—16.)



6. In a device of the character described comprising a tire tread strip; a wear cup disposed on said strip; a washer of larger circumference than said cup disposed therein; a rivet passing through said tread strip and said washer and having its head mushroomed to hold said washer in said cup and said cup to said strip, said cup having inwardly curved edges for compressing said washer to cause it to bulge outwardly, whereby same will continue to bulge outwardly despite wear thereon and on the edges of said cup.

1,417,756. WRENCH. ARTHUR MCDONALD, Vancouver, British Columbia, Canada. Filed Nov. 18, 1921. Serial No. 516,198. 8 Claims. (Cl. 81—87.)



1. An adjustable wrench, comprising in combination, a fixed jaw member having a handle rigid therewith, an adjustable jaw member having a shank endwise movable in a slot formed for it in the rigid member, the edge of which shank further from the jaws has ratchet teeth, the shoulders of which oppose movement of the jaws apart, a pawl adapted to engage the teeth of the jaw shank, a lever pin-connected at one end to the pawl and adjacent such connection pivotally connected to the rigid jaw member, said lever adapted to move against the rigid handle member by which movement the teeth of the pawl are pressed into engagement with those of the jaw shank to retain the movable jaw member in the position to which it has been set.

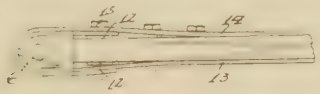
1,417,757. APPARATUS FOR MANUFACTURING CUP PASTRY. WALTER MCLAREN, Chicago, Ill., assignor to Alexander McLaren, Dayton, Ohio. Filed Dec. 31, 1919. Serial No. 348,665. 8 Claims. (Cl. 107—58.)

1. In apparatus of the character stated, a female baking mold having a blind molding cavity and a re-

stricted throat between the molding cavity and the mouth of the mold, a core adapted to enter and partly

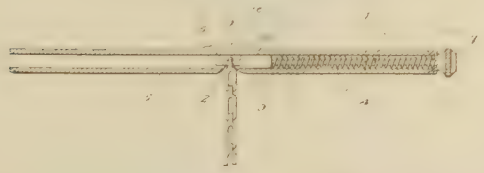
fill the molding cavity and including a neck to fit into said throat to close the mold against the escape of batter while permitting the escape of steam.

1,417,758. GATE-HINGE CONSTRUCTION. ROBERT MCLAUGHLIN, Monmouth, Ill., assignor of one-half to A. G. Patton, Monmouth, Ill. Filed July 29, 1920. Serial No. 399,722. 2 Claims. (Cl. 16—128.)



2. A hinge structure for a farm gate comprising hinge members defining a loop at the rear end of said gate, a bearing block secured in said loop and having a depending leg, said depending leg having a rounded projection adapted to contact the anchoring bolts of the gate to preclude the gate from being raised when in closed position.

1,417,759. FISH STRINGER. THOMAS BRAINARD MCNIECE, Mansfield, Ohio, assignor of one-half to Forest L. Garrison, Cincinnati, Ohio. Filed May 12, 1921. Serial No. 469,030. 1 Claim. (Cl. 224—7.)

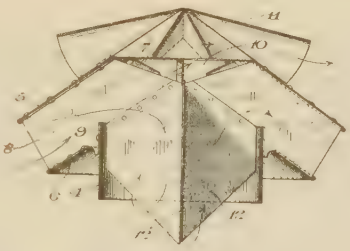


In a fish stringer, the combination with a barrel having an integral thickened intermediate portion provided with a narrow gradually restricted entrance opening, of a spring actuated plunger within said barrel and movable across said opening, and a chain having a terminal link formed from a single length of material bent intermediate its ends whereby to form an attaching eye adapted to be received within said barrel, the end portions of said length of material being enlarged to form shoulders adapted to engage the walls of said gradually reduced entrance opening whereby to position said attaching eye.

1,417,760. AUGER BIT. ELMER T. MCPHERSON, Wallingford, Conn. Filed Jan. 7, 1921. Serial No. 435,627. 3 Claims. (Cl. 145—117.)

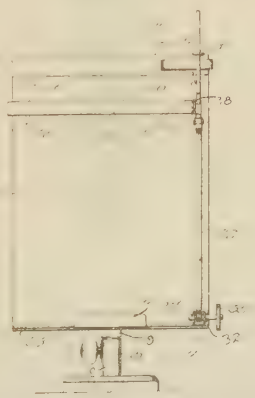
2. A balanced auger bit having its cutting-edge and the smoothing-edge of the spur located substantially in line, and the latter carried downward below the said cutting-edge for balancing the action of the bit.

1,417,761. VENTILATOR AND CHIMNEY CAP. ROBERT T. MERRILL, Milwaukee, Wis., assignor to The Crown Ventilator Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Apr. 13, 1921. Serial No. 460,927. 4 Claims. (Cl. 98—4.)



4. In a ventilator and chimney cap, the combination, with a draft tube, a frusto conical deflector provided with a central opening, a second deflector located above said tube and first named deflector and provided with a central opening, and radial ribs connecting the two deflectors and extending toward the axis of the tube, of deflector plates depending into and meeting at the axis of said tube and forming extensions of some of the ribs, said deflector plates having their lower edges inclined from the wall to the axis of said tube.

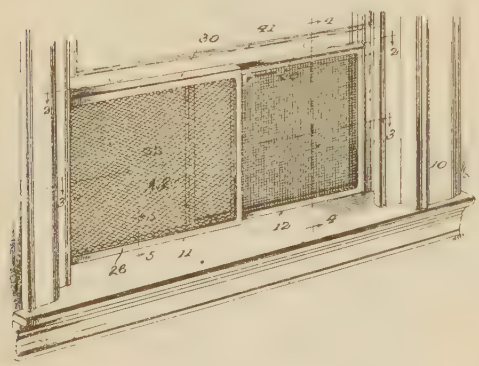
1,417,762. COPYHOLDER. LOUISE A. MOCHEL, Chicago, Ill. Filed May 16, 1919. Serial No. 297,691. 1 Claim. (Cl. 120—33.)



A copy holder comprising a rack having one of its vertical edges bent upon itself, but spaced from the

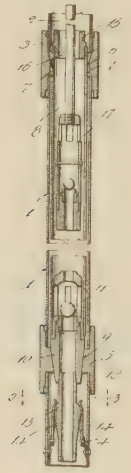
front face of the body portion of the rack to provide a guide channel, a carrier entering said channel and encompassing the bent edge portion to frictionally and adjustably engage the rear face of said rack, a marker integral with said carrier and extending over the front face of said rack and means for vertically adjusting said carrier.

1,417,763. WINDOW SCREEN. CHARLES S. MYERS, Hazleton, Pa. Filed Sept. 9, 1920. Serial No. 409,091. 2 Claims. (Cl. 156—38.)



2. A device of the class described including a pair of slidably connected sections, foraminous bodies secured to said slidably connected sections, and a reinforcing rod extending across one of said sections and having its end portions secured along the sides of the same and extended inwardly and laterally to form stop elements adapted for limiting the movement of the sections with relation to each other.

1,417,764. OIL-WELL PUMP. JOHN H. NICHOLS, Oilfields, Calif. Filed Apr. 7, 1921, Serial No. 459,401. Renewed Feb. 27, 1922. Serial No. 539,752. 4 Claims. (Cl. 103—80.)

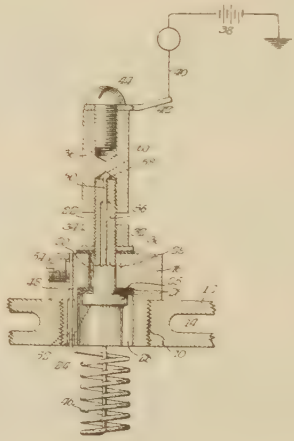


1. In an oil well, a tubing, a sucker rod in the tubing, a plunger carried by the sucker rod, a cylinder and standing valve removably seated in the tubing, an anchoring element carried by and extending beneath the standing valve, resilient means carried by said tubing for engaging said anchoring element to releasably hold the cylinder and standing valve in place, and means carried by the cylinder engageable by the plunger whereby the cylinder and standing valve may be released from the gripping means and drawn out of a well with the sucker rod and valve.

1,417,765. STATION INDICATOR. HERBERT J. PENDRAY, Victoria, British Columbia, Canada. Filed Apr. 17, 1919. Serial No. 290,758. 4 Claims. (Cl. 40—93.)

1. A station indicator comprising a band of flexible material across which the names of the stations are printed in succession, a frame, winding rollers rotatably mounted within said frame, to which rollers the ends of the band are respectively secured so that the band may be wound on either roller off the other, a display roller rotatably mounted intermediate of and parallel to the winding rollers, around the outer side of which display roller the band passes from one winding roller to the other, means applied to the band on the display roller for imposing a frictional grip between that roller and the band, means for rotating the display roller in either direction, whereby the band is withdrawn from one winding roller and delivered to the other, and means directly operated from the display roller for winding the band upon the roller toward which it is delivered.

1,417,766. EXTERNALLY-HEATABLE IGNITION PLUG. ALFRED PETER, Beloit, Wis., assignor to Fairbanks, Morse & Co., Chicago, Ill., a Corporation of Illinois. Filed June 1, 1920. Serial No. 385,595. 3 Claims. (Cl. 123—145.)

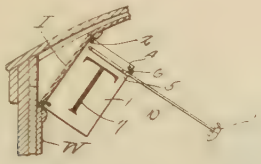


1. An ignition plug having parallel longitudinal passages, and a resistance coil having respective integral end portions straightened and extending in parallelism whereby movement of the coil in one direction will engage said end portions in respective passages and opposite movement of the coil will disengage the end portions from said passages, and means for releasably securing said end portions of the coil in said passages.

1,417,767. VEHICLE SIGN. WILLIAM A. PETERSEN, Excelsior Springs, Mo. Filed Nov. 11, 1919. Serial No. 337,372. 1 Claim. (Cl. 40—138.)

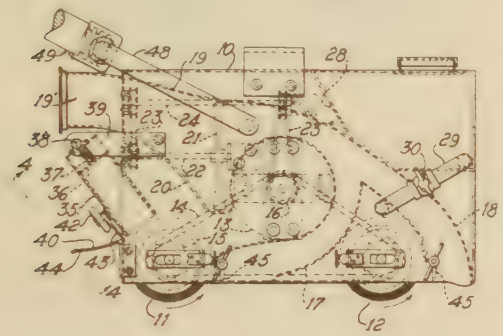
A device of the class described including inclined hinged members mounted for swinging movement and

having a sign on each side thereof, an arm secured to and extending across each hinged member to reinforce the same, said arm extending beyond the free terminal of



the hinged member, a weight carried by the free terminal of the arm, and a rod pivotally connected to the hinged members to cause them to swing about their hinges in unison when put in motion.

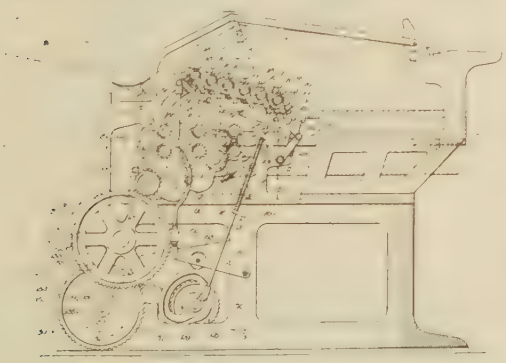
1,417,768. BRUSHING AND POLISHING MACHINE. STEVEN RADIMAK, New York, N. Y. Filed July 20, 1921. Serial No. 486,119. 8 Claims. (Cl. 91—39.)



1. In a device of the class described, a pair of rotary brushes, means for supporting a cake of wax adjacent one of the brushes, and means for delivering a polishing liquid on the other brush.

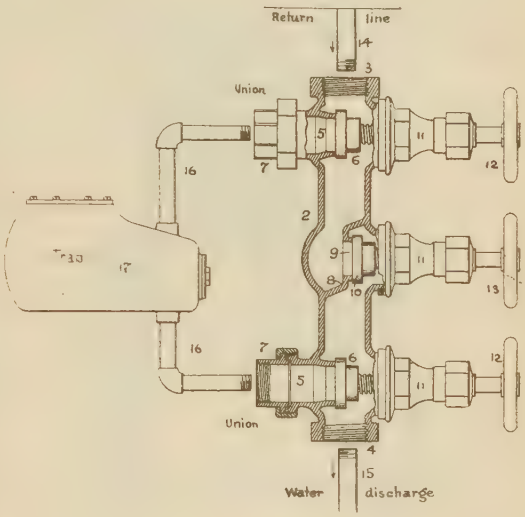
7. In a device of the class described, a rotary cylindrical brush, a guide box for a cake of wax hinged at one side and having its opposite side open and adapted to be swung into or out of registry with the said brush, and a retainer plate curved concentric to the pivot point of the guide box.

1,417,769. MULTICOLOR-PRINTING PRESS. CHARLES A. RICHARDS, Chicago, Ill. Filed May 27, 1921. Serial No. 472,955. 11 Claims. (Cl. 101—187.)



1. A multi-color printing press having a plurality of sets of ink fountains, a platen, a form roller for each set of fountains, intermediate rollers for transferring ink between each set of fountains and a corresponding form roller, a reciprocatory type frame for carrying the forms between the form rollers and the platen, and means for selectively bringing the form rollers into contact with forms on the type frame.

1,417,770. BY-PASS VALVE. FRANK H. SCHAEFER, Camden, N. J. Filed July 8, 1921. Serial No. 483,174. 5 Claims. (Cl. 277—57.)



1. An organized by-pass valve device comprising a body part having a thoroughfare provided at one end with an inlet port and at the other end with an outlet port, and further having the body divided intermediate of its ends by a transverse diaphragm having a by-pass port, said body also having two independent lateral ports one on each side of the by-pass port and respectively opening into the thoroughfare between the by-pass port and the inlet and outlet ports, in communication with a by-pass valve adjustably carried by the body for controlling the by-pass port, and two independent operating valve means also carried by the body and respectively arranged to control the lateral ports to open both lateral ports when the by-pass port is closed.

1,417,771. MEDICINAL COMPOUND AND METHOD OF PRODUCING THE SAME. JAY FRANK SCHAMBERG and GEORGE W. RAIZISS, Philadelphia, Pa., assignors to Dermatological Research Laboratories, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 21, 1920. Serial No. 375,433. 3 Claims. (Cl. 167—9.)

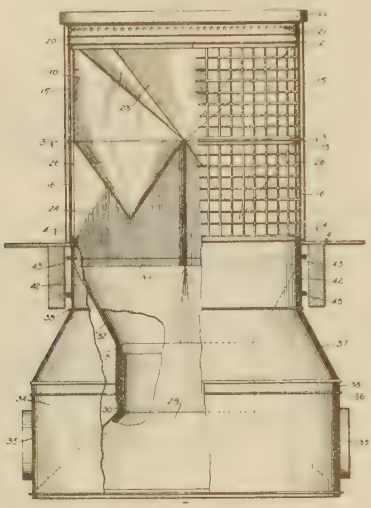
1. The new medicinal product described, which is the reduced derivative of an extract of araroba powder, is minutely crystalline in form, yellow in color, melting at about 190° C., slightly soluble in ether and methyl alcohol, and more soluble in glacial acetic acid, chloroform, benzene and ethyl alcohol.

3. The process described which consists in dissolving the amorphous powder extract of araroba powder in acetic acid, in the presence of tin metal, at a boiling temperature, subjecting the solution to the repeated action of hydrochloric acid at a prolonged boiling temperature, filtering the same, washing the filtrate for the complete removal of acetic acid, and finally cooling the residue for the separating out of the crystalline precipitate.

1,417,772. HEAT-DISTRIBUTING DEVICE. ALBERT G. SCHERER, Chicago, Ill., assignor to The Excelsior Steel Furnace Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 19, 1920. Serial No. 374,892. 4 Claims. (Cl. 98—54.)

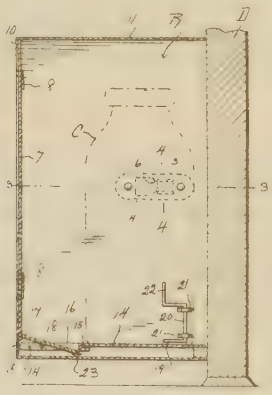
2. A register structure comprising a reticulated wall extending in a plurality of planes, a rear wall member connecting the ends of said reticulated wall, and a conduit located within the walls of said structure the walls of said

conduit converging forwardly from said rear wall member and meeting adjacent the forward portion of said reticu-



lated wall and said conduit walls being flared upwardly and outwardly to meet said reticulated wall in all of its planes and intermediate its top and bottom.

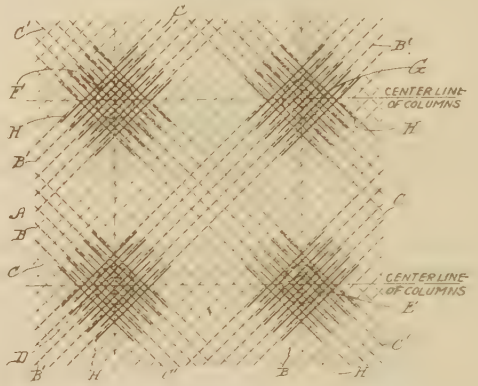
1,417,773. DEPOSIT AND COLLECTION RECEPTACLE. FREDERICK W. SCHULZE, Philadelphia, Pa. Filed July 9, 1921. Serial No. 483,550. 6 Claims. (Cl. 232—42.)



1. A device of the class described including a receptacle provided with an inwardly swinging door, a floor within the receptacle supported for swinging movement, a portion of the floor adjacent the door normally swinging downwardly by gravity, and a latch pivotally supported by said portion of the floor and normally swinging upwardly, said normally depressed portion of the floor swinging upwardly upon imposing weight upon the opposite portion of the floor, said latch holding the door against inward swinging movement when said normally depressed portion of the floor is elevated.

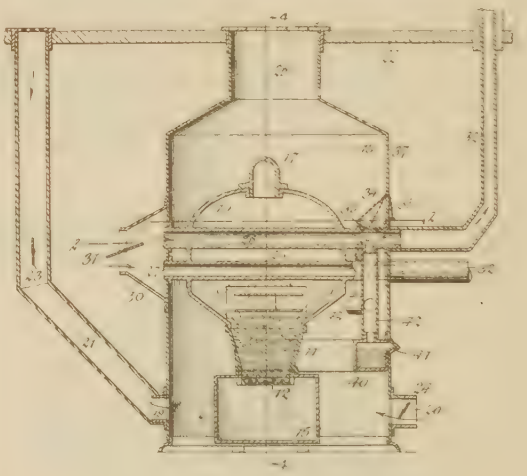
1,417,774. MONOLITHIC FLAT SLAB. KARL R. SCHUSTER, Brooklyn, N. Y. Filed June 1, 1918. Serial No. 237,700. 10 Claims. (Cl. 72—15.)

7. A monolithic flat slab supported solely on columns and initially stiffened by two belt courses of rods extending diagonally to the center lines between the columns and positioned in crossing relation to each other and in the material of the slab below the neutral axis thereof, the aggre-



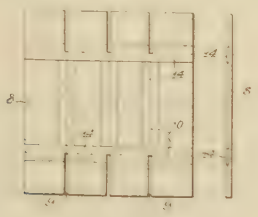
gate area of the rods being increased on the longer diagonal lines between diagonally opposite columns of adjacent pairs of columns.

1,417,775. HOT-AIR FURNACE. DEWEY A. SCOTT, Buffalo, N. Y. Filed Dec. 4, 1920. Serial No. 428,188. 4 Claims. (Cl. 126—109.)



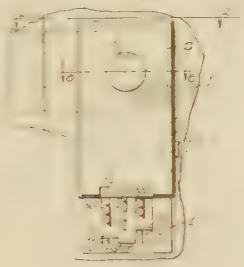
1. A hot air furnace comprising a combustion chamber, an upright main air heating chamber enclosing said combustion chamber and having an air inlet and an air outlet, a supplemental air heating pipe extending horizontally through said combustion chamber, and having an air inlet and a main air outlet outside of said main air heating chamber and also having an auxiliary air outlet whereby said supplemental pipe may be placed in communication with said main air heating chamber, and a movable gate which in one position closes the main air outlet of said supplemental pipe and opens said auxiliary air outlet and in another position closes said auxiliary air outlet and opens said main outlet of the supplemental pipe.

1,417,776. BOX CONSTRUCTION. CARL R. SHAFER, Detroit, Mich. Filed Sept. 27, 1920. Serial No. 413,132. 6 Claims. (Cl. 229—49.)



1. As a new article of manufacture, a container made of a piece of cellular material having an inset reinforcement of similar material.

1,417,777. COMBINATION KEYLESS NIGHT LATCH. JOSEPH SOMORA, Chicago, Ill. Filed July 11, 1921. Serial No. 483,841. 5 Claims. (Cl. 70—60.)



1. In a device of the type described, a casing, a plurality of manually controlled combination plates carried by said casing, said plates having grooves adapted to be alined with each other, a lock plate having a plurality of alined lugs adapted to be received in the grooves when the grooves are alined, a shaft having a pinion rigidly secured thereto, a pair of slidable racks constantly in mesh with said pinion, said racks engaging with said lock plate and preventing the rotation of said shaft, when the lugs in said plate are out of engagement with said grooves, said racks being free to move when said lugs are received in said grooves.

1,417,778. PROCESS OF MAKING FRICTION FACINGS. FREDERICK C. STANLEY, Bridgeport, Conn., assignor to Raybestos Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Sept. 24, 1919. Serial No. 325,911. 20 Claims. (Cl. 91—70.)

3. A process of making a friction facing, consisting in forming a felted unwoven sheet, the major portion of which consists of asbestos fibre, forming friction facings of the desired configuration from said sheet and subjecting them to a plurality of independent saturations and subjecting the facings to a separate baking operation after each saturation.

10. A process of making a friction facing consisting in forming a facing having a substantially incombustible wearing surface and subjecting it to saturation in an oxidizable binder and then baking it in the presence of an oxidizing agent contained in the body of the facing.

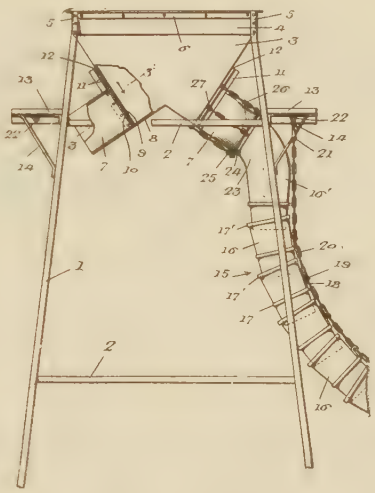
13. The process of making a friction facing composed of unwoven fibrous material having an oxidizing agent incorporated therein, comprising saturating the facing with an oxidizing binder, and in then subjecting the facing to a heat treatment.

20. The process of making friction facings composed of fibrous material, which comprises subjecting the facing to independent saturations in binders containing different relative quantities of binder constituents forming the binder, each bath containing an oil, and in heating the facing after each bath.

1,417,779. FRICTION FACING. FREDERICK C. STANLEY, Bridgeport, Conn., assignor to Raybestos Company, Bridgeport, Conn., a Corporation of Connecticut. Original application filed Sept. 24, 1919, Serial No. 325,915. Divided and this application filed Aug. 23, 1920. Serial No. 405,508. 4 Claims. (Cl. 91—70.)

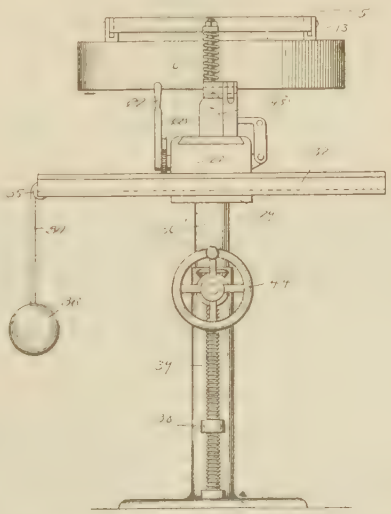
2. A friction facing composed of unwoven sheet asbestos fiber, saturated with a baked sulphurized binder.

1,417,780. LOADING HOPPER AND CHUTE. ALVA L. STEPHENS, Portland, Oreg. Filed Aug. 21, 1919. Serial No. 318,892. 2 Claims. (Cl. 193—4.)



1. A loading apparatus embodying a hopper having an inclined wall with an opening therein, a pair of shims secured to said wall at opposite sides of said opening, angle members secured to the shims, an inclined spout secured at its upper end to said members in communication with said opening, a valve slidable along said wall between said wall and said members and spout and having its edges guided by said members, and a chute connected to and leading downwardly from said spout.

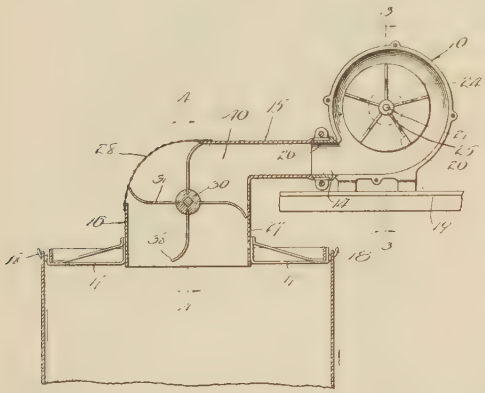
1,417,781. PACKAGE-MARKING MACHINE. ROBERT F. STUART, Kokomo, Ind. Filed June 7, 1920. Serial No. 387,216. 12 Claims. (Cl. 197—1.)



1. In a package imprinting machine, a supporting member, a vertically adjustable platform supported thereby,

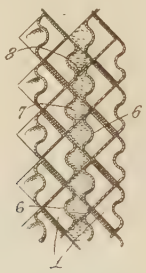
printing means carried by the platform, and laterally overhanging the latter and mounted for bodily movement in two relatively transverse horizontal directions, the printing means being disposed for downward actuation to print upon the upper face of a package disposed laterally of the supporting member.

1,417,782. CONVEYING AND CLEANING MECHANISM FOR COTTON. LOUIS CARROLL STUKENBORG, Chicago, Ill., assignor to Frederick W. Stukenborg, Chicago, Ill. Filed Feb. 10, 1919. Serial No. 276,049. 7 Claims. (Cl. 19—75.)



1. In cotton conveying means, a blower comprising a casing having a central inlet and a tangential outlet, a shaft rotatively mounted in said casing, a plate fixed to said shaft on the sides of the casing remote from the said inlet, and blades carried by said plate and extending towards the inlet opening without obstruction so as to leave spaces between the blades for cotton from said inlet.

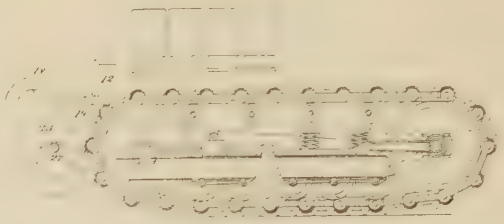
1,417,783. AUTOMOBILE RADIATOR. ROBERT R. SWANEY, Sacramento, Calif. Filed Dec. 26, 1919. Serial No. 347,472. 4 Claims. (Cl. 257—130.)



1. A honey-comb radiator consisting of a plurality of sections, each section comprising vertically disposed rows of square cells positioned to lie with their opposite corners in vertical and horizontal alinement respectively, the cells of each section being fitted in with those of adjacent sections, and continuous water-passages formed between the sections through which a straight vertical line may be drawn.

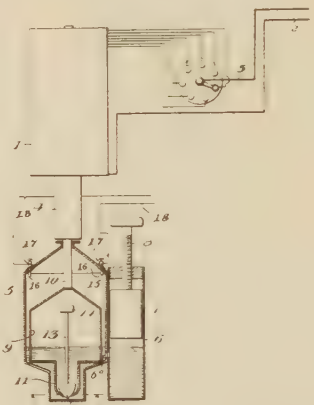
1,417,784. WINDLASS ATTACHMENT FOR TRACTORS. WILLIAM TURNBULL, Peoria, Ill., assignor to The Holt Manufacturing Company, Stockton, Calif., a Corporation of California. Filed Apr. 27, 1917. Serial No. 164,944. 1 Claim. (Cl. 254—166.)

In a tractor, a windlass detachably connected to the front end of the main frame below the same, driving connections for said windlass extending to the motor and including a transverse shaft journaled on the front end



of the main frame, a casing for said transverse shaft, and downwardly extending brackets for the windlass, said casing and brackets being integrally formed.

1,417,785. RELAY. EDOUARD VEDOVELLI, Paris, France. Filed July 16, 1920. Serial No. 396,792. 6 Claims. (Cl. 200—97.)

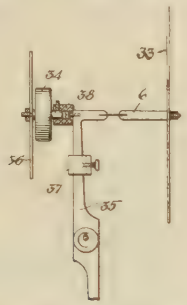


4. A time controller for an electric circuit closer comprising a receptacle filled to a predetermined level with a dense fluid; a vessel mounted in said receptacle for vertical movement and having a passage at its lower end whereby the interior of the vessel communicates with the interior of the receptacle and permitting the flow of the fluid contained in the receptacle to and from the vessel; means for partially closing said opening, said means being effective when the vessel is ascending to reduce the flow of fluid from said vessel to said receptacle and being rendered ineffective when the vessel is descending to permit a rapid descent of the vessel; a tank for the dense fluid adjacent said receptacle and communicating therewith; and a plunger in said tank for forcing said fluid into the receptacle to increase the level thereof in the receptacle.

1,417,786. SOUND-RECEIVING APPARATUS. WILLIAM L. WALKER, New York, N. Y. Filed Nov. 19, 1917. Serial No. 202,680. 10 Claims. (Cl. 179—122.)

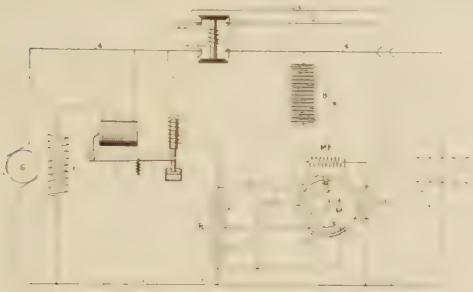
1. In a sound detecting apparatus, a sound receiver, a microphone comprising a cell provided with a diaphragm, cooperative electrodes mounted upon the cell wall and diaphragm respectively, means connecting the diaphragm directly to said sound receiver, means supporting said cell for movement with said receiver, and means for damping the movement of said cell so that when said sound receiver moves slowly both of said electrodes are moved slowly with the sound receiver, but with substantially no relative movement therebetween, and when the

sound receiver moves rapidly the electrode carried by the diaphragm is moved relatively to the other electrode, said



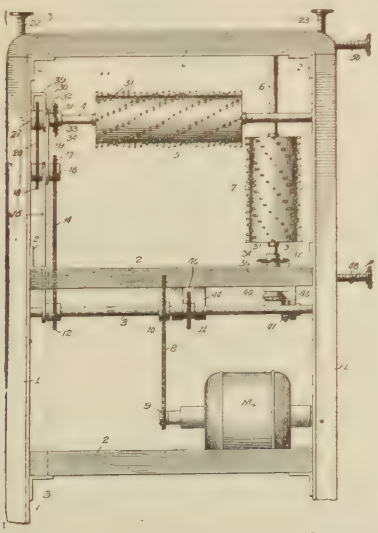
other electrode being restrained from movement by said damping means.

1,417,787. RAILWAY LIGHTING SYSTEM. LEONARD A. WATSON, Port Washington, N. Y., assignor to The Safety Car Heating and Lighting Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 29, 1916. Serial No. 74,999. 20 Claims. (Cl. 171—313.)



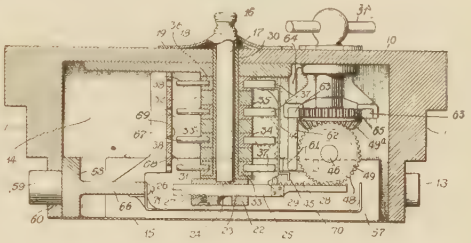
1. In a railway car lighting system, in combination; a variable speed generator; a storage battery connected to be charged thereby; regulating means, responsive to a function of the generator output, operable to maintain the generator voltage constant; and means responsive to the condition of charge of the battery arranged to affect said regulating means to maintain a higher constant generator voltage when the battery has reached a predetermined state of charge.

1,417,788. CLAY-PRODUCT-FACING MACHINE. WILLIAM E. WILSON, Mason City, Iowa. Filed May 1, 1920. Serial No. 378,059. 14 Claims. (Cl. 25—20.)



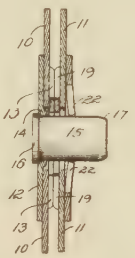
1. In a brick or tile making machine, the combination of a rotatable marking element having means thereon adapted to engage the surface of a moving ribbon or tube of ceramic material, means to cause rotation of said marking element, means for independently moving the ends of said marking element transversely to the direction of its axis and means to permit such movement without disturbing the driving means for the marking element.

1,417,789. COMBINATION LOCK. JAMES M. ZWEIMAN, West New York, N. J. Filed June 22, 1921. Serial No. 479,503. 22 Claims. (Cl. 70—53.)



1. A combination locking device comprising a casing provided with extensible locking bolts, a pair of shafts mounted in said casing, a series of selectors carried by one of said shafts, and means movable transversely of said selectors by the rotation of said other shaft whereby each selector may be engaged and then rotated by said selector shaft to effectuate the movement of said locking bolts.

1,417,790. FASTENER FOR ENVELOPES. LEW ARNTZ, Des Moines, Iowa. Filed Mar. 14, 1921. Serial No. 452,204. 1 Claim. (Cl. 229—78.)

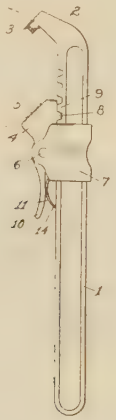


In combination with an envelope or container having a closure flap thereon, a fastener device for preventing the opening of the envelope or container without the mutilation thereof, said device including a plate secured to the back of the envelope or container, said plate having an opening formed therein, an outwardly extending curved flange formed on the edge of said opening, a pin received in said opening having a head thereon, the head on said pin being received on the under side of said plate and resting against the curved flange, a second plate secured to the closure flap of the envelope of the container, said second plate being provided with an opening adapted to receive said pin member when the closure flap is in closed position, means for preventing the opening of said closure flap when once closed, said means comprising resilient fingers formed on said second plate, said fingers being designed to coact with the pin member for preventing movement in one direction as specified.

1,417,791. METHOD OF TREATING PHOTOGRAPHIC DRY PLATES OR FILMS. JOSEPH D. BAGLEY, Springville, Utah. Filed Feb. 7, 1921. Serial No. 443,311. 1 Claim. (Cl. 95—88.)

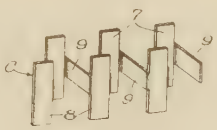
The method of treating photographic dry plates or films consisting in subjecting the dry plates or films to the action of alcohol after exposure and before development and while wet with alcohol subjecting them to the action of a photographic developer.

1,417,792. ADJUSTABLE SPANNER WRENCH. JOHN J. BARTENSTEIN, Cleveland, Ohio, assignor to The Fairmount Tool and Forging Company, a Corporation of Ohio. Filed Oct. 13, 1919. Serial No. 330,279. 1 Claim. (Cl. 81—90.)



In a wrench, the combination of a handle having an inwardly extending pin, a strap, the strap being slidably mounted upon the handle, a block, the block being pivoted to the strap, the block having an inclined face adapted to engage a body to be moved, the handle having teeth, the block having a lug at one side of the pivot adapted to engage said teeth to prevent sliding movement of the block, a lever extending from the block at the other side of the pivot for tilting the block to disengage its lug from said teeth, and a spring fixed in said block and tending to press said lever of the block from said handle for holding said lug in engagement with said teeth, substantially as described.

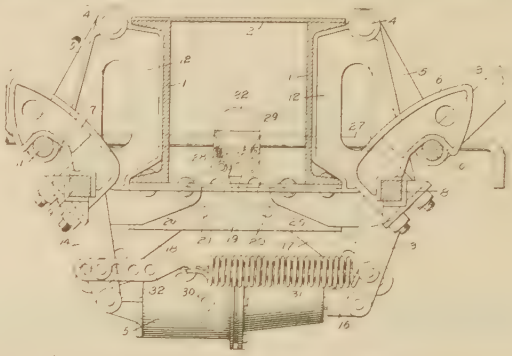
1,417,793. CLIP FOR PLASTER BOARDS AND THE LIKE. HARRY H. BURSON, Chicago, Ill., assignor to Simplex Steel Products Company, Chicago, Ill., a Corporation of Illinois. Filed July 31, 1920. Serial No. 400,498. 3 Claims. (Cl. 72—118.)



2. A clip of the kind described comprising a body of sheet metal bent in zigzag fashion and adapted to present its edges between the edges of a pair of juxtaposed plaster boards to thereby space them apart a definite distance, a plurality of wings formed integral with the clip body in double courses, one on each side of the two plaster boards, the wings being extended from the clip body in opposite directions to engage with both plaster boards, substantially as described.

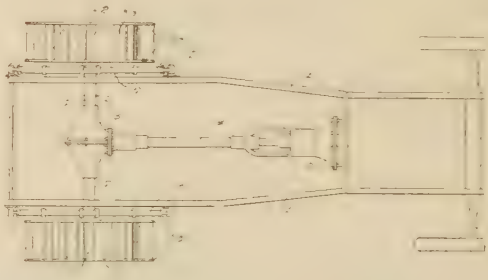
1,417,794. SHAFT-CONTROL DEVICE. CHARLES H. CLARK, Library, and HOWARD L. BEACH, Mount Lebanon, Pa., assignors to Clark Car Company, a Corporation of Pennsylvania. Filed Sept. 9, 1920. Serial No. 409,277. 18 Claims. (Cl. 105—265.)

2. In a shaft locking device for a dump car, a lever fixed on the shaft, a bar having a slotted connection to said lever and provided with a pin and arcuate slot connecting the bar to the car frame, said pin and slot preventing longitudinal movement of said bar when either extremity of said slot is engaged by said pin, and said bar preventing the movement of said lever when one extremity is engaged by



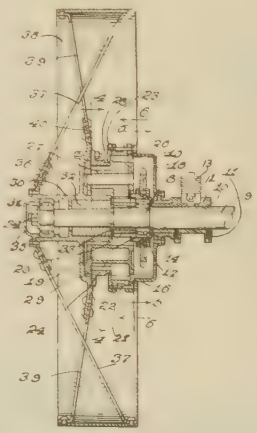
said pin and permitting said movement when its other extremity is so engaged.

1,417,795. DETACHABLE DRIVING WHEEL. ALBERT E. COOK, Evanston, and THOMAS VAN TUYL, Kankakee, Ill.; said Van Tuyl assignor to said Cook. Filed June 14, 1918. Serial No. 240,095. 9 Claims. (Cl. 180—75.)



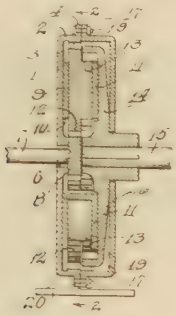
1. The combination with an automobile or truck rear axle sleeve mechanism and a collar rotatably journaled thereon, of a stationary internal gear supported on said sleeve mechanism, and a speed reducing wheel adapted to be removably bolted to said collar to coact with said internal gear to convert the automobile or truck into a tractor.

1,417,796. INTERCHANGEABLE TRUCK AND TRACTOR ATTACHMENT. ALBERT E. COOK, Evanston, and THOMAS VAN TUYL, Kankakee, Ill.; said Van Tuyl assignor to said Cook. Filed June 14, 1918. Serial No. 240,096. 13 Claims. (Cl. 74—7.)



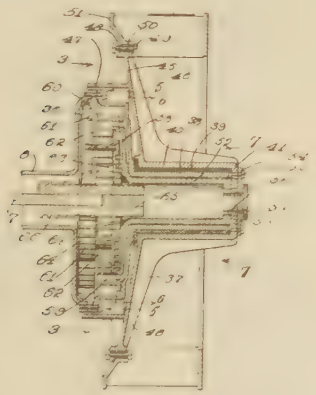
1. A speed reduction device comprising an axle, driving means rotatable thereon, a floating gear disposed around said axle and connected with said driving means, and a speed reduction mechanism driven by said floating gear.

1,417,797. SPEED-CHANGING GEAR. ALBERT E. COOK, Evanston, and THOMAS VAN TUYL, Kankakee, Ill.; said Van Tuyl assignor to said Cook. Filed June 14, 1918. Serial No. 240,097. 8 Claims. (Cl. 74—34.)



1. In a device of the class described, a casing, a stationary internal gear integral therewith, a floating spider within said casing, floating gears within said spider meshing with said stationary internal gear, a movable internal gear meshing with said floating gears, a driven shaft secured to said movable internal gear, and a geared driving shaft connected with said floating gears to rotate the same whereby said driven shaft is rotated at a rate of speed different from that of the driving shaft.

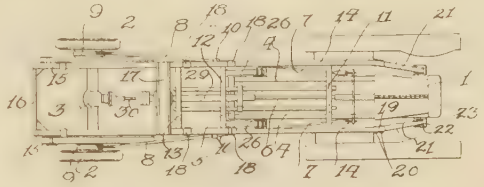
1,417,798. SPEED-CHANGE TRACTOR ATTACHMENT FOR AUTOMOBILES. ALBERT E. COOK, Evanston, and THOMAS VAN TUYL, Kankakee, Ill.; said Van Tuyl assignor to said Cook. Filed June 14, 1918. Serial No. 240,099. 7 Claims. (Cl. 74—59.)



1. A speed change mechanism embracing a driving axle, a speed change wheel, a rack driving cylinder slidably mounted on said axle, means on said rack for connecting the wheel therewith, and pinion means engaged with the rack adapted to slide said rack driving cylinder to move the means thereon into engagement with said speed change wheel, whereby a drive from said axle is changed by said speed change wheel to produce different speed changes depending upon the direction of movement of said rack driving cylinder.

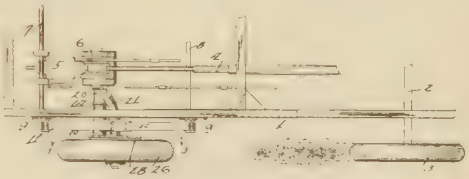
1,417,799. SPRING-MOUNTED TRACTOR ATTACHMENT. ALBERT EUGENE COOK, Evanston, and THOMAS VAN TUYL, Kankakee, Ill.; said Van Tuyl assignor to said Cook. Filed Nov. 10, 1919. Serial No. 336,808. 4 Claims. (Cl. 180—16.)

1. The combination with automobile chassis frame sills, of auxiliary frame sills, a brace member rigidly connecting said auxiliary frame sills, spring mechanisms connecting said chassis frame sills to said auxiliary frame



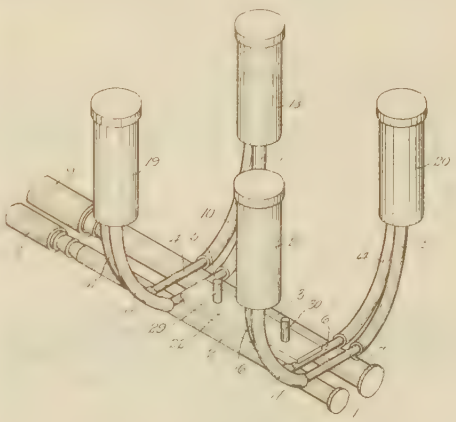
sills, and spring devices connecting said chassis frame sills to said auxiliary frame brace members.

1,417,800. OSCILLATING AXLE MECHANISM. ALBERT EUGENE COOK, Evanston, and THOMAS VAN TUYL, Kankakee, Ill.; said Van Tuyl assignor to said Cook. Filed May 14, 1920. Serial No. 381,345. 10 Claims. (Cl. 180—70.)



1. The combination with a vehicle frame, of a driving axle, a housing therefor rigidly secured on said frame, a bracket journalled on said housing, a shaft supported thereby to oscillate about said housing, a wheel journalled on said shaft, gears connecting said wheel with said axle, a spring adjustably supported on said frame, a member clamped on said spring, and means on said bracket adapted to have roller contact with said member to afford a spring suspension for said frame.

,417,801. COW MILKER. EDITH AMY COOK, Glenomaru, Otago, New Zealand. Filed Apr. 12, 1921. Serial No. 460,679. 3 Claims. (Cl. 31—101.)

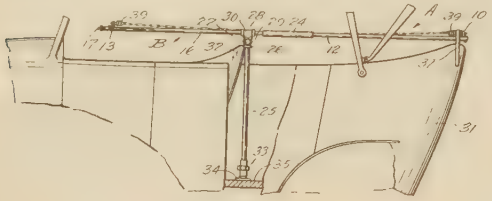


1. In a milking machine having a claw and teat cups connected thereto, the combination with the claw of a weighted piece approximating sixty eight ounces avoirdupois substantially as and for the purposes set forth.

1,417,802. AUTOMOBILE BED. FRED B. COSPER, Seattle, Wash. Filed Aug. 1, 1921. Serial No. 488,786. 5 Claims. (Cl. 5—72.)

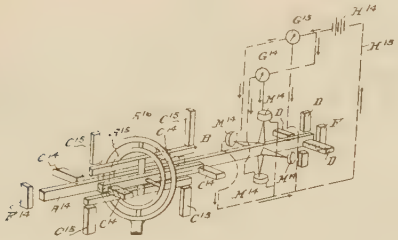
1. In an automobile bed, a supporting stand, a bed frame comprising head and foot sections, resilient means con-

necting said sections in foldable relations with respect to each other, one of said sections being pivotally connected



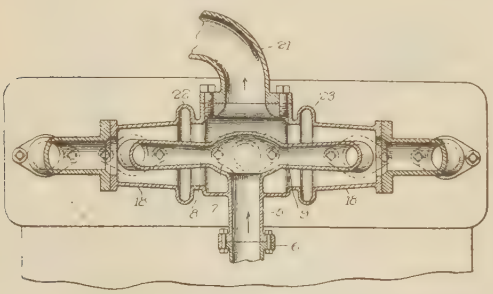
to said stand, and sleeve devices engaging members of both of said sections for releasably securing the frame in its extended position.

1,417,803. MAGNETOMETER FOR MEASURING WEAK MAGNETIC FIELDS. JULIO LOPES VALENTE DA CRUZ, Newcastle-upon-Tyne, England. Filed Apr. 23, 1918. Serial No. 230,353. 4 Claims. (Cl. 177—352.)



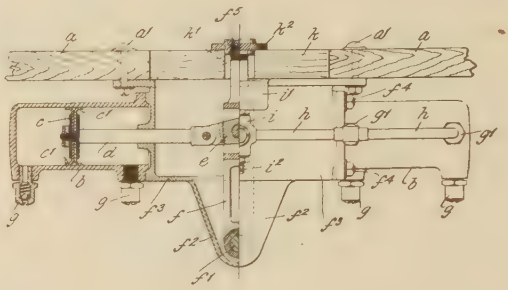
1. In apparatus for detecting and measuring weak magnetic forces, the combination of a magnet, means for rendering the said magnet astatic to earth, oppositely directed abutments against which said magnet will exert variable pressure under the influence of deflecting magnetic force, means for causing an electrical current to pass through said abutments whereby the intensity of the current is subjected to variation corresponding to the variations of pressure on the abutments, and means for giving indication of such current variations.

1,417,804. INTERNAL-COMBUSTION ENGINE. DAVID P. DAVIES, Racine, Wis., assignor to J. I. Case Threshing Machine Company, Racine, Wis., a Corporation. Filed Oct. 1, 1919. Serial No. 327,803. 3 Claims. (Cl. 123—122.)



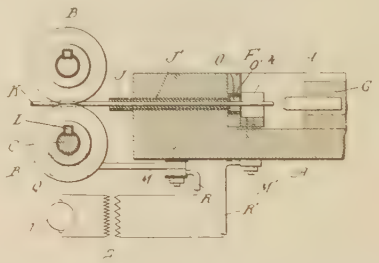
1. The combination, with an internal combustion engine, of a manifold comprising a jacket having channels integrally formed in its walls to permit expansion and contraction thereof, an expansion chamber therein for the reception of a fuel mixture, and Venturi tubes communicating with said chamber and extending laterally from each side thereof, said tubes terminating in curved formation and communicating with said engine.

1,417,805. TIRE PUMP. IFOR LLEWELLYN DAVIES, Blackheath, England. Filed May 19, 1920. Serial No. 382,669. 5 Claims. (Cl. 230—27.)



1. A tire pump comprising cylinders disposed horizontally with their axes in alignment, a piston in each of said cylinders, a piston actuating member common to said cylinders and pistons, a detachable operating element adapted to be applied to said actuating member for manual operation thereof, means for conveying compressed air from each cylinder from opposite sides of the piston therein and a distributing chamber for receiving such compressed air from the cylinders and having an outlet for said air to a tire, in combination with a vehicle foot-board, a movable member in said foot-board adapted to be displaced to permit application of the operating element to the piston actuating member, and means for attaching the pump to said foot-board.

1,417,806. METHOD AND APPARATUS FOR FORMING HEADED ARTICLES. OTTO H. DE LAPOTTERIE, Kent, Ohio, assignor to Townsend Company, New Brighton, Pa., a Corporation of Pennsylvania. Filed Mar. 1, 1918, Serial No. 219,841. Renewed Apr. 8, 1921. Serial No. 459,716. 9 Claims. (Cl. 219—3.)

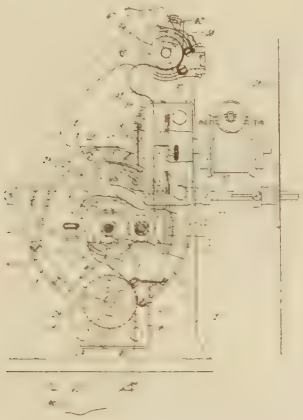


1. In a heading machine, the combination of means for feeding a rod or bar, means for shearing a blank therefrom comprising a movable die, and means for passing an electric current through said rod or bar and said die.

1,417,807. CINEMA AND ANALOGOUS PROJECTION APPARATUS. MARCEL DELUME, Paris, France, assignor to Société d'Exploitation des Brevets Dupuis, Paris, France. Filed Jan. 21, 1919. Serial No. 272,309. 3 Claims. (Cl. 88—17.)

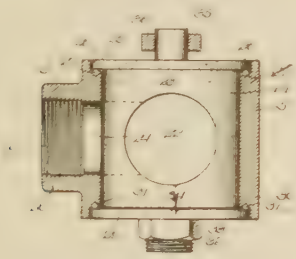
1. A framing mechanism for moving picture machines comprising a driving shaft, a casing adjustable around said shaft, film driving mechanism in said casing adjustable by the adjustment of said casing to adjust the framing, a helical gear on said shaft, an obturator shaft, a

helical gear on the obdurator shaft engaging the first mentioned gear, and means on said casing to adjust the



obturator shaft and its helical gear relatively to the gear on the driving shaft, whereby the obturator and framing adjustments are simultaneously effected.

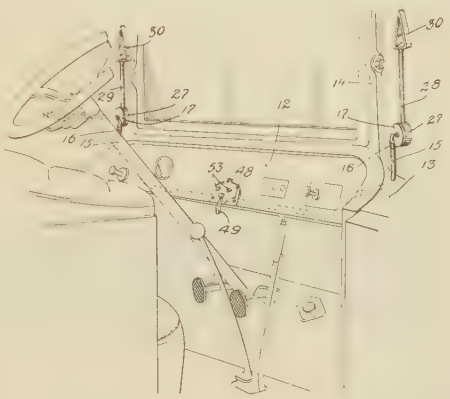
1,417,808. BY-PASS VALVE. CHARLES J. DEWEY, Chicago, Ill. Filed Feb. 26, 1921. Serial No. 447,947. 1 Claim. (Cl. 251—109.)



In a three-way valve, a casing having a straight-away bore and an intermediate, bisecting bore with a transverse bore extending through the point of divergence of the two said bores and with a rabbet surrounding each terminal end of the transverse bore; a three-way valve rotatable in said transverse bore and having a stem extending axially from its axis at one end; a disk overlying a stem at one end and secured to the valve and lying in the adjacent rabbet; another disk overlying the other end of the valve and lying in the other rabbet; a ball race in each rabbet with balls therein in contact with the respective discs; a shim between one disk and the adjacent end of the valve; means to secure the disks to the respective ends of the valves and a handle secured to one of said stems to rotate the valve.

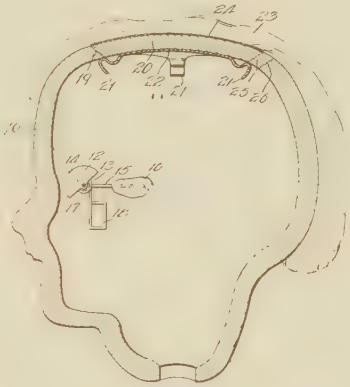
1,417,809. TRAFFIC SIGNAL. ROY D. DOUGLASS, Minneapolis, Minn. Filed Nov. 29, 1920. Serial No. 427,217. 10 Claims. (Cl. 116—54.)

1. The combination with a pivoted arm, of yielding means tending to move said arm into a projected position, a retracting connection extended from said arm, a latch normally active on said connection to hold said arm in a retracted normal position, but movable to release the same, and a manually operated retractor operative on said connection to move the same back to normal position and to again subject the same to said latch, said arm



being connected to its operating connection by a device that will slip under excessive pressure.

1,417,810. DOLL. WILLIAM P. DUN LANY, Chicago, Ill., assignor to Sears, Roebuck and Co., Chicago, Ill., a Corporation of New York. Filed May 25, 1918. Serial No. 236,498. 10 Claims. (Cl. 46—40.)

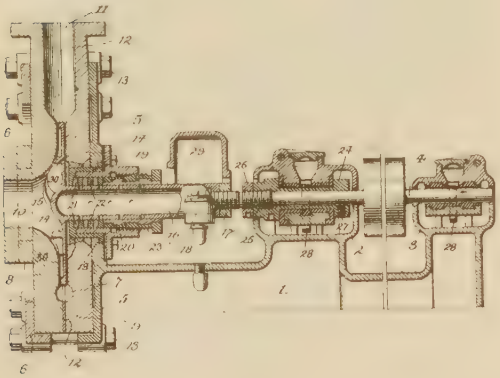


1. A hollow doll head having eyes movably mounted within the head, and having a hole in the upper portion of the head through which the eyes may be mounted or repaired, a substantially flat rigid member closing said hole, disengageable means for securing said member in place, and a wig affixed to the outer side of said member and removable therewith from the main portion of the head.

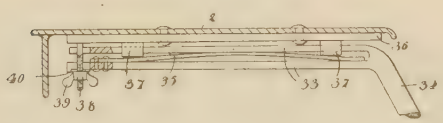
1,417,811. TOOTHBRUSH. EDWARD R. ELLIOTT, San Francisco, Calif., assignor to Leonard Free, San Francisco, Calif. Filed June 14, 1920. Serial No. 389,763. 1 Claim. (Cl. 15—202.)

A tooth brush comprising a brush portion having reversed arcuate portions; and a handle rotatably connected to the brush portion and arranged to permit end for end rotation of said brush on said handle, said brush and handle having means for normally retaining said brush in fixed position relatively to said handle.

1,417,812. CENTRIFUGAL PUMP. GUY H. ELMORE, Swarthmore, Pa. Filed Aug. 8, 1918. Serial No. 248,912. 5 Claims. (Cl. 253—200.)

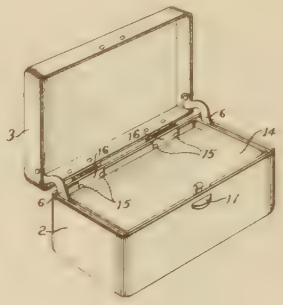


1. A pump of the impeller type, comprising a casing containing a volute chamber; a rotary impeller located within the volute chamber and having a concentric neck or hub projecting from one face; a sleeve encircling the impeller neck, having a radial flange extending inwardly thereto, and held rigidly in position concentric with the axis of the impeller; a stuffing-box encircling the hub or neck of the impeller and extending into the sleeve; an externally threaded stuffing-box gland screwing into the correspondingly threaded open end of the stuffing-box; and alternate yielding and rigid packing rings interposed between the inner flange of the sleeve and the stuffing-box gland, and forming with said gland, stuffing-box and sleeve, a combined bearing and packing gland for the impeller neck or hub.

1,417,813. MUD OR SPLASH GUARD FOR VEHICLES. WILLIAM FAIRCLOUGH, Wigan, England. Filed Feb. 17, 1920. Serial No. 359,268. 2 Claims. (Cl. 280—154.)

1. A mud or splash guard comprising in combination mud guard units or segments reinforced on the underside by strips, lugs projecting downwardly from the underside thereof, arms or strips united at one end to an arm which is fixed to the chassis, a plate spring inserted between the strips to render the said arms or strips self opening, the parts being so arranged that the lugs will take onto and slide along the upper fixed arms, a bolt being provided to compress the said arms and lock the guard in position.

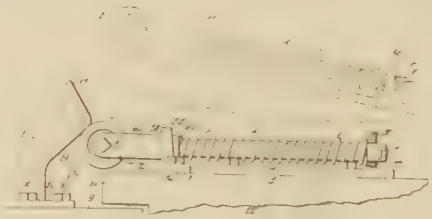
1,417,814. DISPLAY CASE FOR SMALL ARTICLES. NELSON H. FAIRWEATHER, Everett, Mass., assignor to Gillette Safety Razor Company, Boston, Mass., a Corporation of Delaware. Filed Mar. 12, 1921. Serial No. 451,931. 8 Claims. (Cl. 190—16.)

1. A case comprising a body portion and a hinged cover, a shallow receptacle movable upward and downward within the body portion and substantially filling the top of the latter when in its uppermost position, a support for the receptacle movable upward and downward within the body portion and also backward and forward



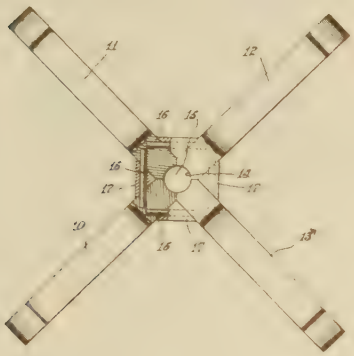
beneath the receptacle, and connections between the cover and the ends of the support for raising and lowering the latter when the cover is opened and closed.

1,417,815. SELF-CLOSING LATCH. MAX W. FISCHER, Portland, Oreg., assignor to Gillen-Cole Co., Incorporated, Portland, Oreg. Filed Oct. 4, 1921. Serial No. 505,428. 1 Claim. (Cl. 292—75.)



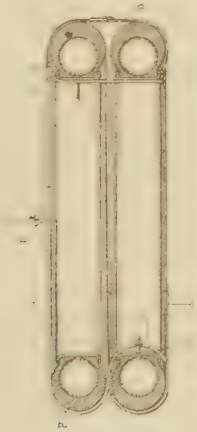
As a new article, a door latch of the character stated comprising a frame adapted for being attached to a door edge, the said frame including a pair of outwardly extending brackets, one at the inner and the other at the outer end of the frame, the inner bracket having an aperture, the bracket at the outer end having an elongated slot, a latch bolt including a shank that slidably engages the apertured bracket and a non-circular bifurcated head that constantly rides within the non-circular slot in the outer bracket, a roller bearing mounted within the bifurcations of the bolt head, a coil spring disposed upon the bolt, one end thereof engaging the inner end of the bolt head, the other end engaging an inner bracket of the latch frame, the said spring tending to normally thrust the bolt, with its roller bearing, beyond the edge of the door to which the latch may be attached, and a latch post, the said post having a base portion to adapt it for attachment to the door frame or jamb, the said post having an outer bearing surface inwardly beveled relatively to the door frame and adapted for being engaged by the latch bearing roller as the door is closed to thereby push the latch bolt back and store tension in the spring, the said post having another bearing surface that is inwardly beveled relatively to the door jamb and whose outer end merges with the inner end of the other beveled surface whereby to receive the bearing roller of the latch bolt and automatically swing the door with the bolt inwardly under tension of the spring to thereby cause the door to close tightly against the door frame or jamb.

1,417,816. CHAIR BASE. THOMAS W. FOOTE, Cleveland, Ohio. Filed July 18, 1921. Serial No. 485,462. 2 Claims. (Cl. 155—138.)



1. A chair base comprising a plurality of legs having their inner ends juxtaposed at an angle to each other leaving spaces between adjacent leg ends, filler blocks in said spaces, and pins passing through the legs and filler blocks to interconnect the same.

1,417,817. TIRE HOLDER. BEECHER FRANK, Cleveland, Ohio. Filed Feb. 19, 1921. Serial No. 446,277. 8 Claims. (Cl. 224—29.)



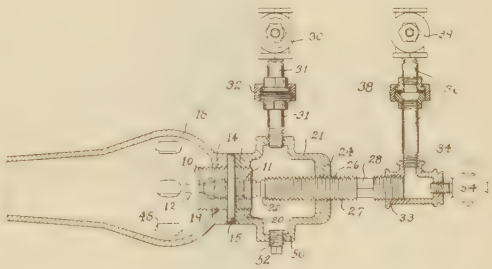
1. A tire holder for extra tires comprising a body member provided at one end portion with reversely directed saddles extending laterally therefrom, one of said saddles being adapted to engage a tire from without and the adjacent saddle being adapted to engage the second tire from within, the opposite end portion of the body member being provided with an extension disposed in the same general direction as the saddles, said extension being adapted to extend through the central opening defined by the applied tires, and a securing means coacting with the second named extension and adapted to extend over the applied tires.

1,417,818. NAIL. WILLIAM K. FROST, Hollywood, Calif. Filed June 7, 1921. Serial No. 475,672. 2 Claims. (Cl. 85—21.)

1. A fastening element comprising a cylindrical shank having a penetrating point formed on one end thereof and an inwardly extending slot extending in from one side thereof toward the penetrating point, and terminating short thereof in substantial alignment with the longitudi-

nal center of the shank, a resilient tongue defined by said slot, and a tapered penetrating point formed on said tongue.

1,417,819. FUEL-OIL BURNER. ALBERT J. FUETTER, Cleveland, Ohio. Filed June 23, 1920. Serial No. 390,993. 3 Claims. (Cl. 158—73.)



1. In a fuel oil burner, a nozzle comprising two coaxial apertured members, means for supplying oil through one of the members and air through the other, a combustion hood on said nozzle and a conduit for supplying air to said nozzle, said nozzle and said combustion chamber being coaxially arranged, said oil supplying member having spiral vanes thereon.

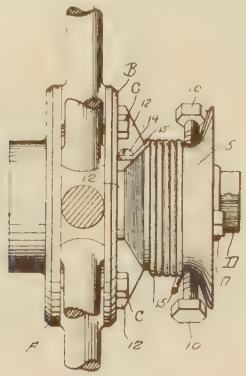
1,417,820. MEANS FOR RENDERING THE ALTERATION OF DOCUMENTS CAPABLE OF DETECTION. VYVIAN EDWIN GOODMAN, Finsbury, London, England, assignor of two-thirds to Waterlow and Sons, Limited, London, England. Filed Aug. 27, 1921. Serial No. 496,146. 2 Claims. (Cl. 91—67.95.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

1. The herein described method of rendering the alteration of documents capable of detection, consisting in coating a black or dark-surfaced paper with an opaque but light-coloured composition sensitive to a chemical eradicator.

1,417,821. AUTOMOBILE WHEEL ATTACHMENT. WALTER H. GREEN, Dardanelle, Ark. Filed May 4, 1921. Serial No. 466,795. 1 Claim. (Cl. 242—95.)

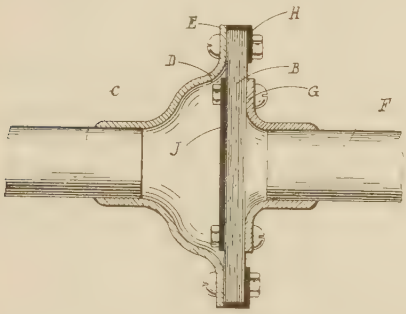
A wheel attachment of the character described comprising a body member having a socket for the reception of a wheel hub, spaced flanges projecting from the ends of the body member, said flanges cooperating with the periphery of the body member to form a pulley, means extending through the periphery at one end of the body member for

securing the body member to an axle, means extending through said end of the body member in angular relation



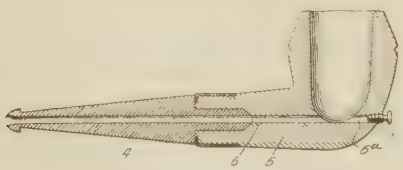
to the first mentioned means for securing said end to the hub of the wheel, and means for connecting the cable to the pulley portion of the body member.

1,417,822. COUPLING FOR CONNECTING SIDE CARS TO MOTOR CYCLES. Walter Ferdinando Grew, Coventry, England, assignor to Thermoid Rubber Company, Trenton, N. J. Filed Dec. 12, 1921. Serial No. 521,841. 3 Claims. (Cl. 208—45.)



1. In a sidecar coupling, the combination of an arm carried by the sidecar, a cup on said arm, a flange to said cup, a bracket on the motor-cycle, a flange on said bracket and a flexible disc attached to both of said flanges, substantially as set forth.

1,417,823. SMOKER'S PIPE. Charles F. Guedel, Indianapolis, Ind., assignor of one-half to Guedel Manufacturing Co., Inc., Portland, Ind., a Corporation of Indiana. Filed Oct. 25, 1920. Serial No. 419,177. 1 Claim. (Cl. 131—12.)

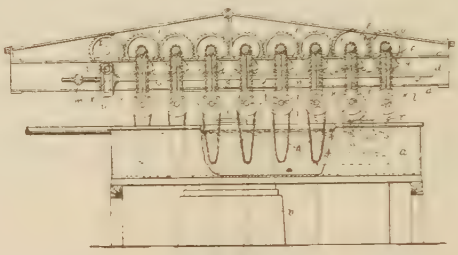


A pipe comprising a body provided with a bowl and a stem having a draft duct therein extending transversely to and having its inner end intersecting and completely open to the bottom of the chamber in the bowl, the body having a transverse opening having its inner end intersecting and completely open to the bottom of said chamber extending through the front thereof and in substantial alignment with the duct in the stem to permit a cleaner to be passed directly and completely through the stem and the bottom of the chamber in the bowl, and removable means for closing said opening.

1,417,824. OUTBOARD BUOY FOR BOATS. Gustave Haack, Madison, Wis. Filed Jan. 3, 1922. Serial No. 526,803. 1 Claim. (Cl. 114—123.)

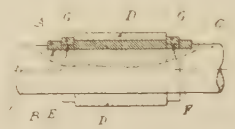
In a device of the kind described, closed metal tubes containing compressed air and extending along both sides of a boat between the water-line and gunnel, said tubes provided with plates extending outward from the ends thereof, a bracket with a plurality of holes secured to the stem of the boat and the forward plates fastened to the bracket by a bolt, brackets secured to both sides of the boat, a plurality of holes through said brackets in which screws are disposed for attaching the plates at the rear ends of the tubes thereto, and means for admitting and retaining compressed air in the tubes.

1,417,825. DYEING MACHINE. Emil S. Halter, Paterson, N. J. Filed Feb. 5, 1921. Serial No. 442,665. 8 Claims. (Cl. 8—10.)



1. A machine for treating skeins in a liquor bath, including, with a vat, a carrier over the vat oscillatory laterally of the pendent skeins, and between limits of movement approximately equidistant from the surface of the bath, and a reel revoluble on the carrier on an approximately horizontal axis and over which the skeins are looped and from which they hang pendent.

1,417,826. KEYING DEVICE FOR SHAFTS. Paul Harivéau, Paris, France. Filed Aug. 2, 1920. Serial No. 400,782. 7 Claims. (Cl. 287—52.)

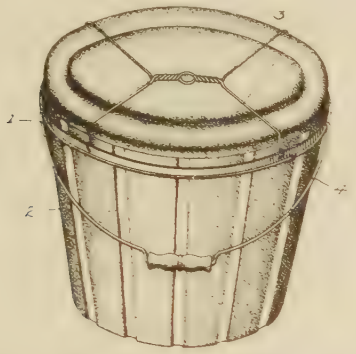


1. A device for keying the hub of a wheel to its shaft and more especially the rotors of centrifugal pumps, a key connecting the hub to the shaft, a recess provided in the key at each end of the hub and a flexible split ring engaged in said recess forming an abutment for the hub.

1,417,827. FASTENING DEVICE FOR SHIPPING-CASE COVERS. Jess B. Hawley, Evanston, Ill., assignor to American Seamless Container Company, Chicago, Ill., a Corporation of Delaware. Filed Mar. 11, 1920. Serial No. 364,901. 7 Claims. (Cl. 217—89.)

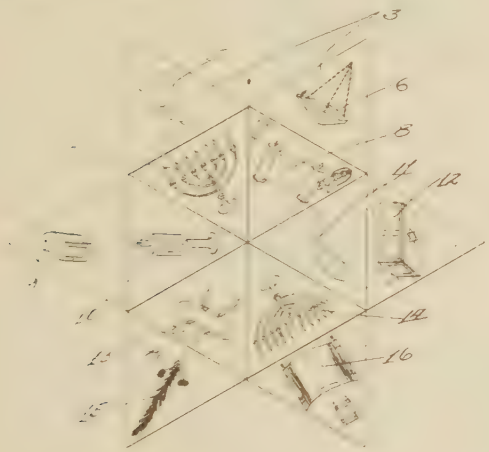
1. In a device of the class described, a hoop, a plurality of wire loops adapted to be twisted together over the out-

side of a pail cover, the free ends of said loops being each passed outwardly through an aperture in the hoop, then



bent upwardly and inwardly, and the free end portion of the loop being bent downwardly along the inside of the hoop.

1,417,828. EDUCATIONAL DEVICE. HERMAN HIRSCH, Chicago, Ill. Filed Feb. 19, 1920. Serial No. 359,988. 1 Claim. (Cl. 46—35.)



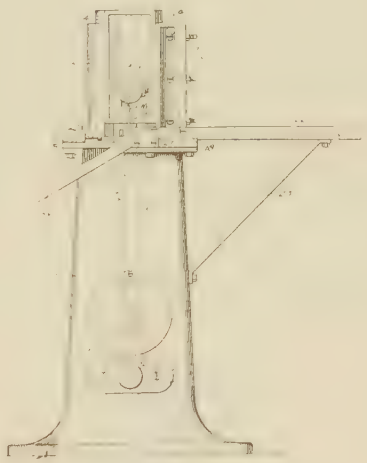
In combination, twelve triangular blocks, a hexagonal block and a hexagonal box, all the sides of all of the blocks being equal, and all the blocks having the same thickness, the interior diagonal of the box being equal to that of the hexagonal block and the depth of the box being three times the thickness of blocks, a symbol on one face of each triangular block and a legend on the opposite face thereof, all of said symbols and legends being different, a picture on one side of said hexagonal block, and a representation on the cover of the box of the star-shaped figure that can be formed from the blocks, whereby the twelve triangular blocks may be formed into two hexagons and positioned on the hexagonal block to fit in the box and whereby a six-pointed star may be formed either from the twelve triangular blocks or from six of them and the hexagonal block.

1,417,829. FURNACE. HENRY JOHNSON, Winston-Salem, N. C., assignor to The Southern Iron & Steel Corporation, a Corporation of North Carolina. Filed June 28, 1920. Serial No. 392,454. 1 Claim. (Cl. 110—73.)

A furnace for curing tobacco comprising in one portable structure made of metal, an exterior longitudinal wall, an interior longitudinal wall, and transverse end walls together forming an enclosed air chamber, the chamber formed by the inner wall and end walls having near one end a fire bridge extending upwardly from the bottom of the furnace and spaced from the rear end wall to form a secondary chamber, a grate supported on the fire bridge and the front end wall, an exit flue located near the bottom of said secondary chamber, damper controlled

air flues extending from the front end of the furnace through the air chamber and opening into said secondary chamber in proximity to said exit flue, and doors opening into the spaces above and below the grate.

1,417,830. CUTTING MACHINE. FRANK M. JOSLIN, Amsterdam, N. Y., assignor to Inman Manufacturing Company, Inc., Amsterdam, N. Y., a Corporation of New York. Filed Mar. 29, 1920. Serial No. 369,485. 3 Claims. (Cl. 164—47.)



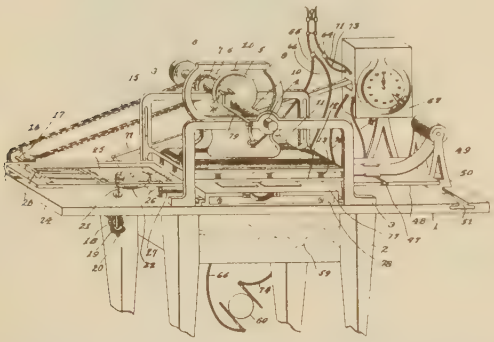
1. A machine of the class described comprising a frame having a vertically arranged guide way, a cutter carrier slidably mounted in said guide way, said carrier having a hollow boss extending laterally therefrom beyond said frame, a rib arranged beneath said boss at right angles to the front face of the carrier and integrally connected with said boss and with said carrier, a cutter secured to the lower edge of said rib and arranged substantially in a vertical plane passing through the axis of said boss, a reciprocating member arranged at the rear of said carrier for operating the same, and means mounted in said boss and engaging said reciprocating member.

1,417,831. PROCESS FOR OBTAINING IN SOLUBLE STATE SOME OF THE CONSTITUENTS OF COMPLEX ROCKS. FÉLIX JOURDAN, Rome, Italy. Filed Dec. 22, 1920. Serial No. 432,614. 2 Claims. (Cl. 23—22.)

1. Process of obtaining in soluble state some of the constituents of complex potassic rocks containing also salts of iron, aluminum, calcium and magnesium, which

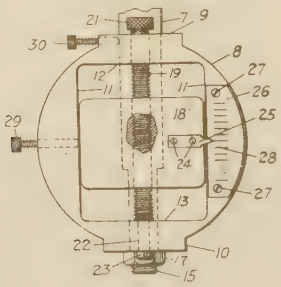
consists in attacking said rocks with hydrochloric acid, using a temperature of 300° to 600° C., and recovering the hydrochloric acid.

1,417,832. PHOTOPRINTING MACHINE. CHARLES KESSES, New York, N. Y. Filed Oct. 27, 1920. Serial No. 419,927. 4 Claims. (Cl. 95—75.)



1. An intermittently operating motor operated photo printing machine, including an exposure regulating device, lamps for making the prints, circuits for supplying current to the operating motor and the lamps, said circuits being controlled by said exposure regulating device, means for holding a negative, a feeding mechanism for feeding a strip of sheet material, said feeding mechanism including a carrier connected to the motor for intermittent reciprocation, a gripping device on said carrier to grip the paper when the carrier moves from the negative, a stationary gripping device to grip the paper when the carrier moves toward the negative and means to lift the paper from the negative while it is being advanced by the carrier.

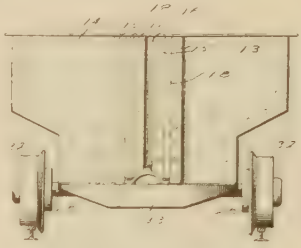
1,417,833. PENDULUM BALL FOR AUTOMATIC SCALES. LAWRENCE H. KENNEDY, Dayton, Ohio. Filed Feb. 14, 1921. Serial No. 444,882. 3 Claims. (Cl. 265—61.)



1. A pendulum ball for automatic scales, comprising a casting having a hollow interior portion rectangular in cross section, and adjustable means slidable through said interior portion along its major axis for the purpose specified.

1,417,834. MINING CAR. WILLIAM KIRCHMAN, Van Buren, Ark., assignor to The Engineering Works, Van Buren, Ark., a Corporation of Arkansas. Filed Apr. 19, 1921, Serial No. 462,632. Renewed Apr. 18, 1922. Serial No. 555,234. 3 Claims. (Cl. 105—364.)

1. An end section for a car body of the class described, comprising a pair of side panels each carrying an end panel and the outer lower corner of each end panel being cut away to accommodate the car wheels, and connecting



means between the end panels adapted to permit the distance therebetween to be increased or decreased.

1,417,835. PROCESS OF MAKING EMULSION. LESTER KIRSCHBRAUN, Evanston, Ill. Filed Feb. 1, 1919. Serial No. 274,497. 6 Claims. (Cl. 134—1.)

6. A process of making an emulsion, consisting in first forming a bulk supply by making an aqueous mixture of water and colloidal clay, adding a waterproof adhesive binder, thoroughly mixing these ingredients into an emulsion in which the binder forms the internal phase and the emulsifying agent and water the external phase, feeding additional water and colloidal clay, and also separately feeding the binder to said bulk supply and agitating the bulk supply while forming the emulsion.

1,417,836. WATERPROOF BOARD AND PROCESS OF MAKING SAME. LESTER KIRSCHBRAUN, Chicago, Ill. Filed May 28, 1920. Serial No. 384,902. 5 Claims. (Cl. 154—45.9.)

1. A wall board composition consisting of a plurality of relatively thin saturated felted fibrous plies, the opposed surfaces thereof being adhesively united with a rigid cementitious substance and comminuted reinforcing particles coating said plies, a coating and granular facing on an exposed surface of said composition.

1,417,837. PROCESS OF MAKING WATERPROOF COMPOSITION. LESTER KIRSCHBRAUN, Evanston, Ill. Filed July 15, 1920. Serial No. 396,413. 6 Claims. (Cl. 106—31.)

1. A stock consisting of bitumen in a discrete form in an aqueous vehicle and containing an oxidizing agent.

1,417,838. COLORED BITUMINOUS COMPOSITION AND PROCESS OF MAKING SAME. LESTER KIRSCHBRAUN, Evanston, Ill. Filed Mar. 16, 1918. Serial No. 222,938. Renewed Oct. 28, 1921. Serial No. 511,098. 5 Claims. (Cl. 106—33.)

1. A prepared bituminous product consisting essentially of a solid body being the residue remaining from the steam distillation of wax tailings, said body being yellowish brown in color and pitchy and having a conchoidal fracture when cold.

1,417,839. WATERPROOF PRODUCT. LESTER KIRSCHBRAUN, Evanston, Ill. Filed Feb. 1, 1919. Serial No. 274,499. Renewed Oct. 28, 1921. Serial No. 511,100. 3 Claims. (Cl. 154—40.)

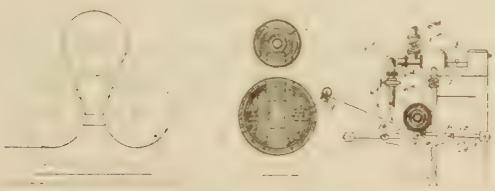
1. A process of making a mottled waterproof sheet, consisting in making a colored emulsified bituminous

matrix, mixing this matrix with a fibre of a different color than the matrix, forming this mixture into a sheet and causing an uneven surface distribution of the binder so that the color of the matrix and the binder respectively predominate in different areas of the surface of the sheet.

1,417,840. PROCESS OF TREATING SATURATED FIBROUS COMPOSITIONS. LESTER KIRSCHBRAUN, Evanston, Ill. Filed Sept. 10, 1919, Serial No. 322,990. Renewed Oct. 28, 1921. Serial No. 511,102. 2 Claims. (Cl. 92—21.)

1. The process of recovering for reuse, the fibrous and bituminous constituents of waste saturated felt consisting in mechanically disintegrating the fibres with their contained bitumen in the presence of a heated emulsifying agent.

1,417,841. PROCESS OF SATURATING FELT. LESTER KIRSCHBRAUN, Chicago, Ill. Filed Nov. 21, 1919, Serial No. 339,691. Renewed Nov. 7, 1921. Serial No. 513,586. 3 Claims. (Cl. 91—68.)

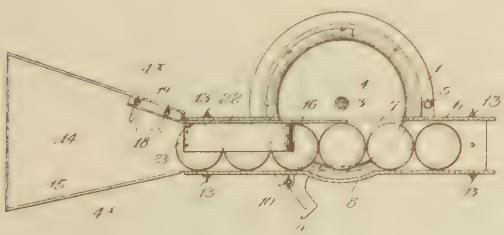


2. A process of saturating felt, consisting in applying a hot bituminous saturant in liquid form to the one face of the hot dry sheet, at or adjacent the point where it is being wound up.

1,417,842. COMPOSITION FOR PAINT. HAMPTON CHARLES KISHPAUGH, Annandale, Minn. Filed Feb. 27, 1922. Serial No. 539,713. 1 Claim. (Cl. 134—46.)

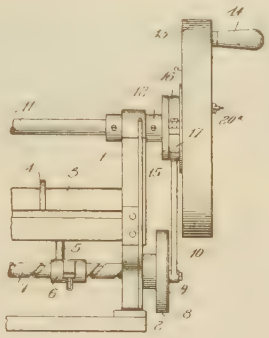
A paint composition of calcium carbonate one hundred (100) parts, calcium oxide five (5) to twenty-five (25) parts, pigment enough to produce the desired color, compounded by thoroughly mixing and grinding these ingredients in the stated proportions.

1,417,843. SLICING MACHINE. WALTER CHANDLER KNAPP, Rochester, N. Y., assignor to Liberty Bread Slicer Inc., Rochester, N. Y., a Corporation of New York. Filed May 5, 1920. Serial No. 378,943. 5 Claims. (Cl. 146—12.)



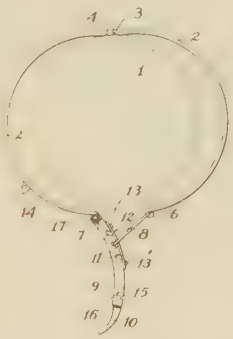
1. In a slicing machine, the combination of a knife, a chute for directing the material to be sliced to the knife, and a plate pivoted in the chute and extending forwardly and downwardly over the knife to engage the material to be cut as it is fed into engagement with the knife.

1,417,844. SLICING MACHINE. WALTER CHANDLER KNAPP, Rochester, N. Y., assignor to Liberty Bread Slicer Inc., Rochester, N. Y., a Corporation of New York. Filed June 5, 1920. Serial No. 386,742. 4 Claims. (Cl. 146—12.)



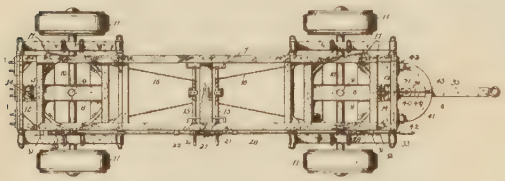
1. In a slicing machine, the combination of a frame, a chute for the material to be sliced mounted in said frame, a pusher in said chute, a worm rotatably mounted in said frame, means operatively connecting said worm with said pusher, a knife shaft revolubly mounted in said frame, a wheel on said shaft, a collar eccentrically pivoted to said wheel and adjustable relatively to the shaft to vary the thickness of the slice, and means operatively connecting said collar with said worm.

1,417,845. CASK COVER. ANDREW LEESEKAMP, Anamosa, Iowa. Filed Aug. 30, 1921. Serial No. 496,990. 1 Claim. (Cl. 217—89.)



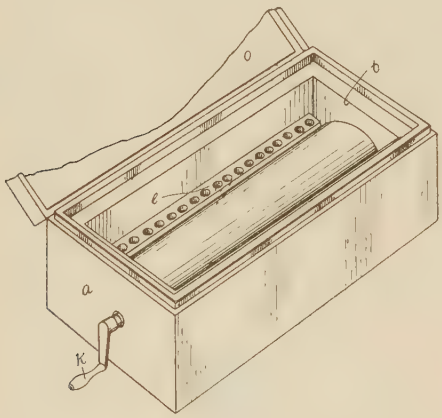
In a device of the class described, the combination of a springy, split, ring-like body provided intermediate its end with an outwardly-extending portion, a strap hinge on said outwardly-extending portion, said body having its ends formed into loops, an elongated link mounted in one of said loops, a curved lever-handle pivotally mounted in the other loop, an apertured lug formed upon the body contiguous to said loop with the lever-handle, said lever-handle provided with a plurality of sockets in its inner edge, said sockets extending inwardly toward the inner end of the lever-handle, said elongated link positioned in one of said sockets, a curved plate positioned over said sockets and extending through the elongated link and bearing against the lever-handle, bolts extending through said plate and into said lever-handle detachably securing the plate to said lever-handle, said lever handle provided with a slot receiving said lug, and fastening means extending through the slotted portion of the lever-handle and a lug fixedly holding the lever-handle in a closed position upon the ring-like body, substantially as shown and described.

1,417,846. TRAILER. SAMUEL E. LIEDABRAND, Springfield, Ill. Filed July 19, 1920. Serial No. 397,526. 8 Claims. (Cl. 280—91.)



1. In steering mechanism of the character set forth, the combination with a vehicle frame, of front and rear sets of wheels pivotally mounted thereon, two transverse shafts mounted on said frame, connecting means between each shaft and one of said sets of wheels, a single actuating member, and means for connecting the actuating member to either shaft at will to turn either set of wheels independently of the other.

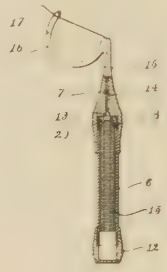
1,417,847. MEANS FOR MAKING ICE CREAM. JOHN MCAULIFFE LONG, Manchester, England. Filed July 9, 1921. Serial No. 483,640. 3 Claims. (Cl. 257—98.)



3. In a freezing machine, a vessel for holding the substance to be frozen having a curved trough-shaped lower part, a revoluble cylinder for holding the freezing substance journaled in the said chamber and arranged with its periphery adjacent to one side of the upper part of the said curved lower part, an angular space being formed between the cylinder and the remainder of the curved lower part, and a perforated scraper secured in the upper part of the said angular space so that the substance to be treated is caused to be propelled around and around in the chamber and caused to pass through the perforation of the scraper into the space above the scraper and cylinder.

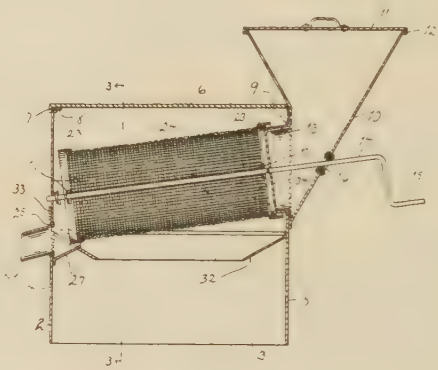
1,417,848. DENTAL TOOL. FREDERICK L. MACDONALD, Waltham, Mass., assignor to Flostik Company, Waltham, Mass., a Corporation. Filed Mar. 12, 1921. Serial No. 451,683. 8 Claims. (Cl. 132—92.)

5. A dental floss tool having, in combination, a hollow body, a head withdrawably connected to said body having a straight floss-way therethrough, said floss-way having a cone-shaped inner end, and a floss-bobbin in said body comprising a spindle having an upper end shaped



complementally to said cone-shaped end of the floss-way and adapted to be seated therein when the head and body are in closed relation.

1,417,849. DUSTLESS ASH SIFTER. JOHN MAIERS, Philadelphia, Pa. Filed May 21, 1918. Serial No. 235,854. 2 Claims. (Cl. 83—60.)

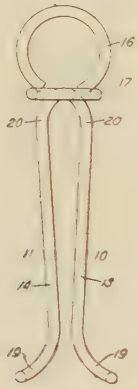


1. An ash sifter comprising a housing provided with a hopper at one end, an outlet spout at the opposite end and a doorway in one of its sides normally closed by a gravity slide door, baffle plates secured to the side and end walls of the housing intermediate the top and bottom thereof, a guide shelf located entirely within the housing and secured to the end wall of the housing having the outlet spout, said guide shelf passing through one of the baffle plates and being approximately semi-circular in shape and a rotary sieve journalled within the housing above the baffle plates and having one end overlying the guide shelf the upper ends of said guide shelf projecting above the longitudinal center of said sieve, as shown.

1,417,850. CLOTHESPIN. JOSEPH B. MARSHALL, Westport, Conn., assignor to Shilepsky and Marshall, Westport, Conn., a Copartnership consisting of Nathan Shilepsky and Joseph B. Marshall. Filed July 14, 1921. Serial No. 484,675. 2 Claims. (Cl. 24—139.)

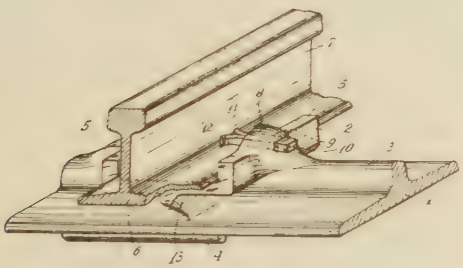
1. A clothes pin consisting of a single length of wire bent to provide jaws, each of said jaws comprising a pair of arms having connection at their lower ends, one of said jaws having an arm constituting an end portion of said length of wire and an arm connecting with one of the arms

of the other jaw, there being a bend between said connecting arms, and said other jaw having an arm terminating



in a loop, said loop freely encircling said bend and the upper end of that arm constituting the end portion of said length of wire.

1,417,851. RAIL TIE. JACOB V. MAYHEW, Pittsburgh, Pa. Filed Mar. 22, 1922. Serial No. 545,711. 3 Claims. (Cl. 238—69.)

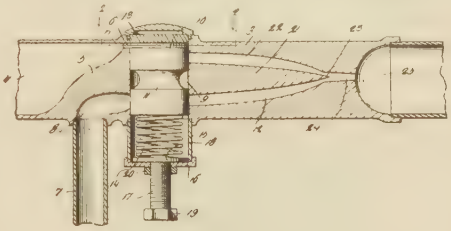


1. In a tie for rails, the combination of a tie-member, rail-chairs formed integrally therewith and having guide-flanges for said rails, and wedges for securing the rails upon said chairs; said wedges being positioned in the flanges of said chairs and inclined a lesser amount than the slope of the rail-flanges engaged by them.

1,417,852. WATCH FOB. THOMAS F. MULLEN, Stafford Springs, Conn. Filed Jan. 26, 1921. Serial No. 439,966. 1 Claim. (Cl. 62—21.)

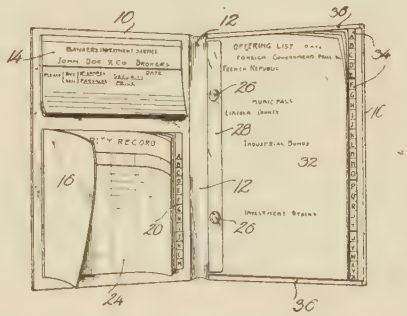
A watch-fob comprising a supporting loop, a strip of textile fabric passed through the loop, for suspension thereby, the ends of the strip being overlapped, and a snap fastener for detachably connecting the overlapped ends of the strip one section of the snap fastener being connected with one end portion of the strip and the other section thereof being connected with the other end portion of the strip, the strip covering the snap fastener from the front and rear of the fob when the latter is in suspended relation.

1,417,853. INJECTOR FOR STEAM ENGINES. CHARLES A. NASH, Seattle, Wash. Filed Dec. 10, 1920. Serial No. 429,687. 3 Claims. (Cl. 162—1.)



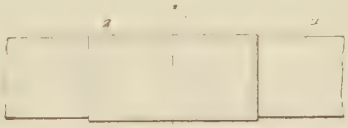
1. An injector for steam boilers including an injecting pipe having steam and water inlets, a valve in the path of said inlets, said valve being automatically opened by the influx of steam to permit simultaneous passage of steam and water through said pipe.

1,417,854. SECURITIES SALES OUTFIT. JAMES QUIGG NEWTON, Denver, Colo. Filed Oct. 1, 1920. Serial No. 413,968. 4 Claims. (Cl. 281—31.)



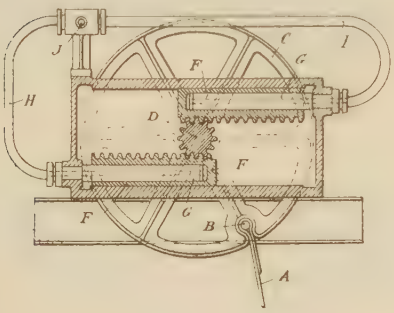
1. A securities selling outfit comprising a folder having two swingingly connected members, means on one member for positively engaging and retaining sheets, loose descriptive sheets positioned between the engaged sheets, and upstanding flanges on edges of said member to assist in retaining the loose sheets between the engaged sheets.

1,417,855. BELT BUCKLE. CINCO S. ODA, Boston, Mass., assignor of one-half to Peter N. Fisher, Boston, Mass. Filed Mar. 19, 1921. Serial No. 453,597. 1 Claim. (Cl. 24—73.)



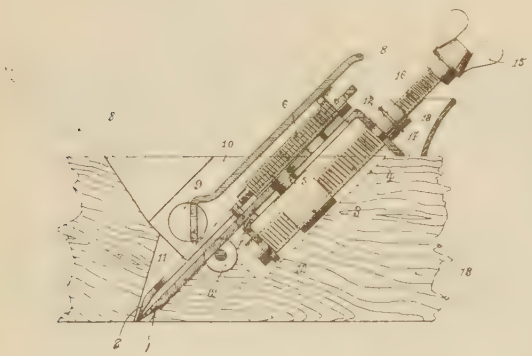
In combination with a belt, a buckle thereon having a transversely arranged bridge piece at its rear, spaced from its front part, said bridge piece having a vertically arranged slot in its upper part having an enlarged upper end which extends into the upper side of the buckle, and a stud adapted to be connected with the trousers for engaging the slot for preventing the buckle and belt from moving upwardly upon the trousers.

1,417,856. HYDRAULIC WINDLASS FOR DROP-STAMPING MACHINES. JEAN ALBERT PERONY, St.-Ouen, France, assignor to Societe d'Outillage Mecanique et d'Usinage d'Artillerie, St.-Ouen, Seine, France, a Limited Joint-Stock Company of France. Filed Nov. 2, 1920. Serial No. 421,351. 18 Claims. (Cl. 78—30.)



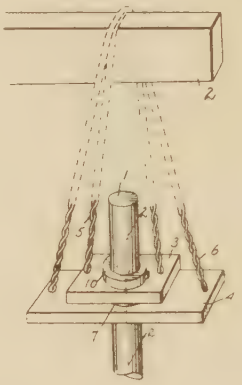
1. In a lifting windlass for drop-stamping machines, the combination with a shaft provided with a pinion and carrying a drum to which is attached a flexible connection with the tup, of a motor comprising a driven member provided with a rack engaging said pinion, and controllable means for regulating the operation of the motor to raise the tup, said controllable means being operable to free the motor and permit dropping of the tup.

1,417,857. HAND PLANE. STEPHEN PFEIFFER, St. Pilt, Neubau Station, Ribeauville Circle, Upper Alsace, France, assignor to Charles Koller and Charles Freysz, both of Strasburg, Alsace, France. Filed June 28, 1920. Serial No. 392,493. 3 Claims. (Cl. 145—11.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



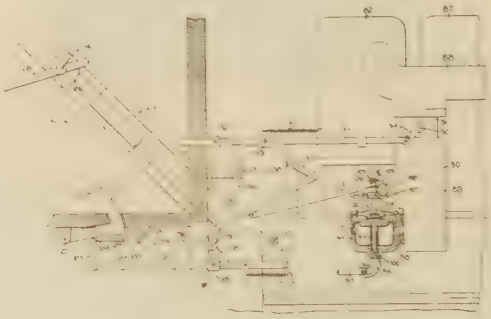
1. A plane in which the iron sliding over a rigid metal guide is clamped in position by means of a lever and can receive displacements in the direction of its longitudinal axis, the plane being characterized by the fact that besides the upper and lower wings at right angles, which serve as a support for the screw that displaces the blade longitudinally, the guide is provided with lateral wings or cheeks for the mounting of the tightening lever, while underneath the nipple of the nut which serves to displace the iron longitudinally and which also serves as a point of articulation for the transverse displacement of the iron a transverse bolt is mounted in such a way as to be able to rotate and at the same time to move transversely to the longitudinal axis of the plane, and this bolt, in moving, acts directly on the iron and displaces it transversely.

1,417,858. MECHANISM FOR TURNING PUMP RODS AND THE LIKE. EDWARD W. PIETZSCHKE, Redondo Beach, Calif. Filed Feb. 2, 1922. Serial No. 533,734. 11 Claims. (Cl. 74—14.)



1. The combination with a member adapted to be rotated, of twisted strand supporting means therefor connected to said member at opposite sides of its axis of rotation, and means for tensioning said supporting means to cause relative twisting of the same and rotation of said member.

1,417,859. METHOD AND APPARATUS FOR OBTAINING WORK IN INTERNAL-COMBUSTION ENGINES. JOSEPH G. PROSSER, Chicago, Ill., assignor to Prosser Company, Boston, Mass., a Corporation of Massachusetts. Filed Mar. 8, 1917. Serial No. 153,430. 15 Claims. (Cl. 123—108.)

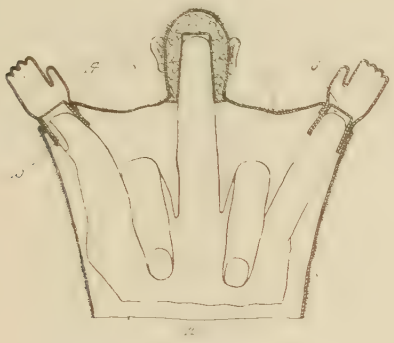


1. In an internal combustion engine, means for controlling the work performed by regulating the quantity of mixture admitted to the cylinder, means for controlling the amount of work performed by regulating the quality of mixture admitted to the cylinder, and means for rendering either of said controlling means effective as desired, and means positioned for operation by the foot of the operator for effecting the regulation of whichever controlling means is in action.

1,417,860. TOY. HANNAH REICH, Chicago, Ill. Filed Dec. 11, 1919. Serial No. 344,109. 2 Claims. (Cl. 46—40.)

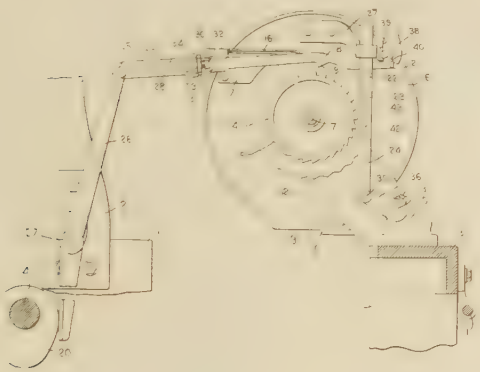
1. A toy in the form of a mitten adapted to be placed over the hand and having head and body portions constructed in imitation of an animate object and having hand or paw members attached to said body portions and movable relative thereto, said head having a receptacle for the insertion of one finger, said hand or paw members,

respectively, being formed so as to provide therein receptacles for the insertion of two other fingers, or one other finger and the thumb, said receptacles being of such shape and formed of such material as to take a frictional grip on



the fingers or on the fingers and thumb, as the case may be, which grip is maintained during manipulations of said head portion and said hand or paw members relative to each other and to said body portion, for the purpose specified.

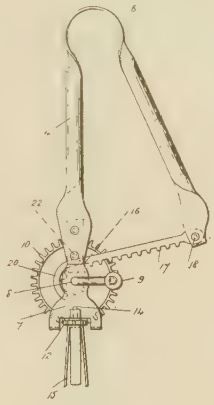
1,417,861. BATTERY FEED FOR AUTOMATIC FILLING-REPLENISHING LOOMS. ALONZO E. RHOADES, Hopedale, Mass., assignor to Draper Corporation, Hopedale, Mass., a Corporation of Maine. Filed Sept. 13, 1920. Serial No. 409,836. 9 Claims. (Cl. 139—85.)



1. An automatic filling replenishing loom comprising a rotary battery or hopper for the fresh filling carriers, a transfer mechanism for effecting transfer of the filling carriers therefrom, a ratchet wheel on the rotary battery or hopper, a constantly rotating cam shaft and a cam thereon, a pawl for cooperation with the ratchet actuated by the cam and normally out of engagement with the ratchet and means controlled by the transfer mechanism for effecting engagement of the pawl with the ratchet.

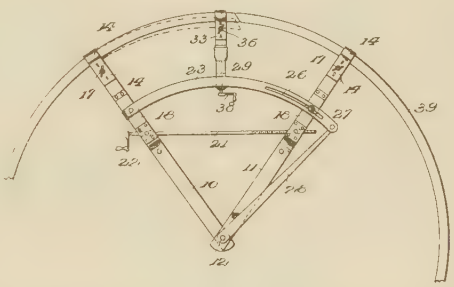
1,417,862. DRIVING MECHANISM. CHARLES C. SCHMAND, Grays River, Wash. Filed Sept. 6, 1921. Serial No. 498,611. 3 Claims. (Cl. 74—27.)

1. A driving mechanism, comprising a handle formed of two finger bars having their upper ends connected by a spring, a frame secured to one finger bar, a crank-shaft journaled in the said frame and provided with a crank-handle, a driving wheel and a toothed pinion secured side by side on the crankshaft, and a toothed rack pivoted to the other finger bar and adapted to engage with the said pinion, the said rack having a smooth hooked portion at its free end which bears on the toothed pinion when the rack is out of gear with it, the said driving



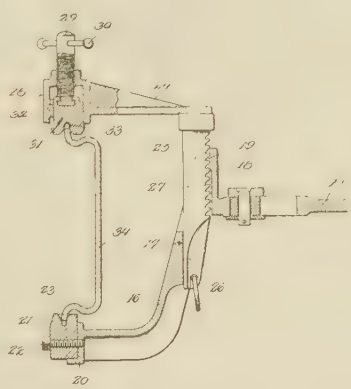
wheel being operated by the movement of either hand singly or by both hands simultaneously at will.

1,417,863. RIM TOOL. GEORGE V. SEARS, Bingham Canyon, Utah. Filed Feb. 18, 1919. Serial No. 277,788. 5 Claims. (Cl. 157—1.)



1. A rim tool including coacting pivotally connected arms, rim engaging means carried thereby, a cross arm fixed upon one of said pivoted arms and having slidable connection with the other, rim engaging means carried by said cross arm and adjustably shiftable radially with respect to the axis of said pivoted arms, and means for adjustably swinging the pivoted arms.

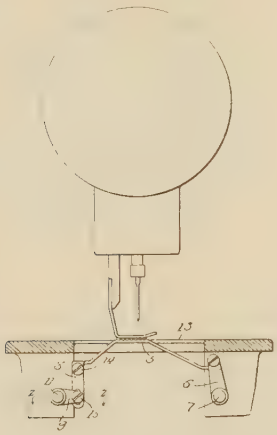
1,417,864. RIM CLAMP. GEORGE V. SEARS, Salt Lake City, Utah. Filed Sept. 14, 1920. Serial No. 410,180. 2 Claims. (Cl. 157—1.)



1. A rim engaging clamp including a fixed jaw, a coacting movable jaw loosely connected with the fixed jaw

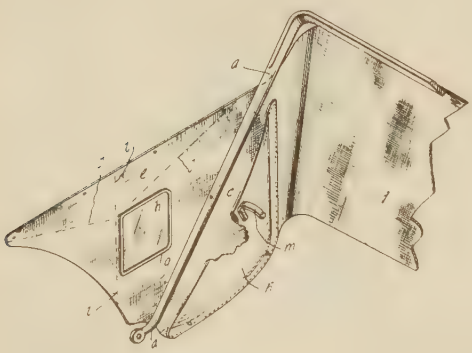
but adjustable with respect thereto, and rim engaging means carried by the jaws and provided with straight rim edge receiving slots having convex walls.

1,417,865. ELEVATION ADJUSTMENT FOR SEWING-MACHINE FEED. ALBERT D. SMITH, Detroit, Mich. Filed July 30, 1918. Serial No. 247,426. 2 Claims. (Cl. 112—215.)



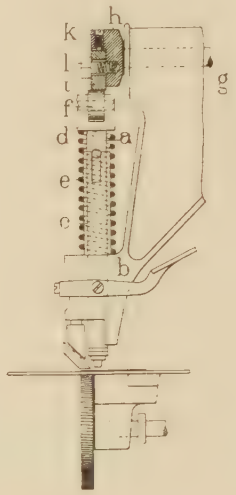
2. In a sewing machine feed mechanism, the combination of an elevation rock-shaft, a feed-motion rock shaft, a feed member, a crank arm fixed to the feed-motion rock-shaft and pivotally connected directly to the feed member, a crank arm fixed to the elevation rock-shaft, and a link pivotally connected at its ends directly to the elevation crank arm and to the feed member, the pivotal connection between the link and said crank arm comprising a pivot bolt adjustably secured in a slot in said member and pivoted in said crank arm, whereby the distance between the pivotal connections of said link may be varied for directly varying the elevation of the feed member.

1,417,866. GYPSY OR SIDE CURTAIN FOR AUTOMOBILE OR SIDE TOPS. SIDNEY G. SPURLING, Portland, Oreg. Filed Oct. 5, 1921. Serial No. 505,669. 5 Claims. (Cl. 296—138.)



1. In a vehicle top, comprising front and back top-bows and top cover, the combination of, triangular gypsy curtains constituting the side enclosures of the top and secured to the back top-bow, each gypsy curtain being provided with a triangular extension piece, means for fastening the top of each extension piece to the bottom edge of the cover of the vehicle top, and a pocket provided on the interior of the main part of each gypsy curtain, into which to insert the extension piece, the latter being adapted to be folded together into a form permitting its insertion in said pocket.

1,417,867. PUNCHING MACHINE. LÜDWIG STREIBEL, Karlsruhe, Germany, assignor of two-thirds to Adam Ehresmann and Oscar Maier, both of Karlsruhe, Germany. Filed Jan. 18, 1922. Serial No. 530,154. 2 Claims. (Cl. 164—106.)



1. In a punching machine in combination, a machine frame, a punch-holder vertically movable in said machine frame, a driving shaft rotatably mounted in said machine frame, a circular disk mounted on said shaft, a spring pressing said punch-holder upwards against the periphery of said disk, a cam being radially adjustable in said disk so as to project more or less over the periphery thereof, which cam on the rotation of said shaft presses down said punch-holder against the action of said spring, and means for adjusting said cam and for fixing the same in its position.

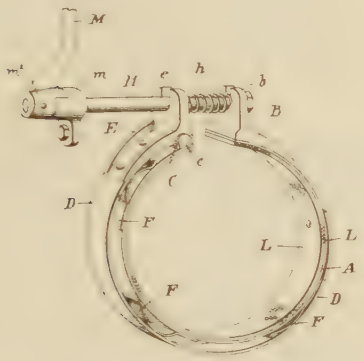
1,417,868. DEVICE FOR MANIPULATING COTTER PINS. DANIEL R. TANNER, Le Grande, Oreg. Filed May 28, 1921. Serial No. 473,380. 3 Claims. (Cl. 81—3.)

1. Pliers for manipulating a cotter-pin having coacting jaws, and one of said jaws having a tapered prong for insertion through the eye of pins of various sizes, and the remaining jaw being cut away to permit said prong to pass such jaw, the cut-away jaw having a portion for engagement with the loop end of the cotter-pin on that side opposite the side through which the prong projects to effect tight insertion of said prong when said jaws are closed.

1,417,869. PROCESS OF DYEING. HANS TOEPFER, New York, N. Y., assignor to The Grasselli Chemical Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 4, 1921. Serial No. 489,849. 2 Claims. (Cl. 8—5.)

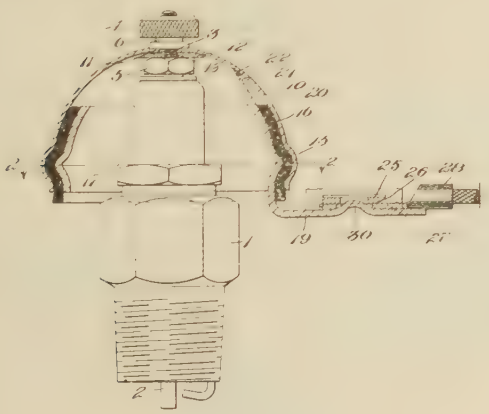
1. In the art of dyeing animal fibres, the process comprising using cobalt salts in conjunction with azo dyestuffs derived from nitro-ortho-amidophenols.

1,417,870. TRANSMISSION BAND FOR AUTOMOBILES. ALGER S. VOIGHT, Joliet, Ill. Filed June 20, 1921. Serial No. 478,842. 2 Claims. (Cl. 188—249.)



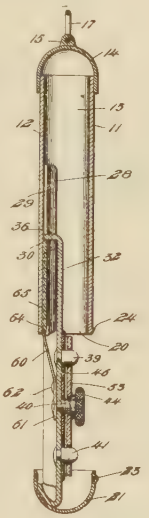
2. A transmission band for automobiles, comprising an inner band extending substantially around a drum, and which carries a shoe at one end and a guide at the other end, an outer band of slightly less length detachably connected at one end to the inner band and carrying at its other end a shoe that fits in said guide, springs interposed between the two bands at intervals and carried by the inner band, and means engaging the shoes for applying pressure to the inner band through said springs.

1,417,871. ATTACHMENT FOR SPARK PLUGS. ERNEST F. WACKWITZ, Arlington Heights, Mass. Filed June 1, 1920. Serial No. 385,399. 4 Claims. (Cl. 123—148.)



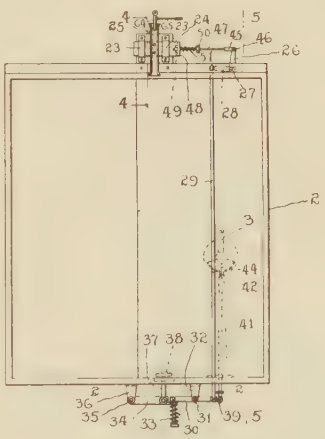
1. In a device of the character described in combination, a hood of electrical conductivity attachable at its upper extremity over the top of a spark plug, a metal connector for a lead, an insulating member between the hood and connector, and means forming an auxiliary gap between said connector and said hood.

1,417,872. BLADE PENDANT. DAVID M. WALL, Providence, R. I. Filed Aug. 11, 1921. Serial No. 491,631. 4 Claims. (Cl. 30—10.)



4. In a blade pendant, a casing provided with an open end, a cap detachably mounted on the casing over the open end, internal guide flanges carried by the casing, a slide engaging the flanges and fast to the cap, a resilient arm fast to the slide, a shoulder on the end of the arm, and a blade detachably mounted on the slide.

1,417,873. ELEVATOR. JACOB M. WHALBE, New York, N. Y. Filed Feb. 12, 1921. Serial No. 444,475. 13 Claims. (Cl. 187—49.)

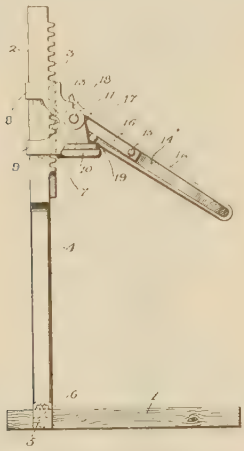


5. The combination with an elevator, including a shaft having landings, a door for each landing, a car operable in said shaft, a gate for said car, and a control for said car, of means to lock said door when closed, means to lock said gate when closed, locking means for said control, means operable only when the car is at a landing for the release of the locking means respectively for said door and gate, and means operable by said release means to apply said control locking means.

1,417,874. BOTTLE-CAPPING MACHINE. GEORGE E. WHITNEY, Bridgeport, Conn. Filed Sept. 6, 1921. Serial No. 498,710. 10 Claims. (Cl. 226—84.)

1. In a device of the class described, a bottle support, a bar positioned perpendicularly relative to said support,

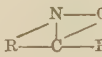
a die slidable on said bar toward and from said support, means actuable to move said die, and means normally limiting the movement of said actuating means to pro-



duce a movement of said die of definite amplitude, actuable to permit an abnormal movement thereof in which the position of said normal path of die movement may be adjusted on said bar.

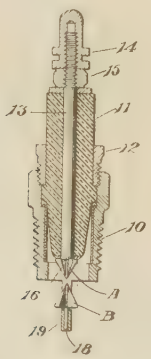
1,417,875. ANTHRAQUINONE DERIVATIVES AND PROCESS OF MAKING SAME. KARL WILKE, Hochst-on-the-Main, Germany, assignor to Farbwerke vorm. Meister Lucius & Brüning, Hochst-on-the-Main, Germany, a Corporation of Germany. Filed July 2, 1921. Serial No. 482,259. 4 Claims. (Cl. 260—44.)

3. As new products, the bodies of the general formula:



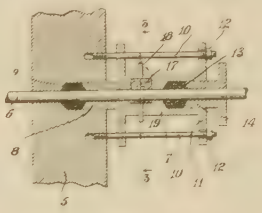
wherein "R" stands for an unsubstituted or in any way substituted anthraquinone residue and R_1 for hydrogen or an alkyl residue.

1,417,876. SPARK PLUG. FRANK M. WOOD, Sacramento, Calif. Filed Jan. 12, 1921. Serial No. 436,652. 3 Claims. (Cl. 123—169.)



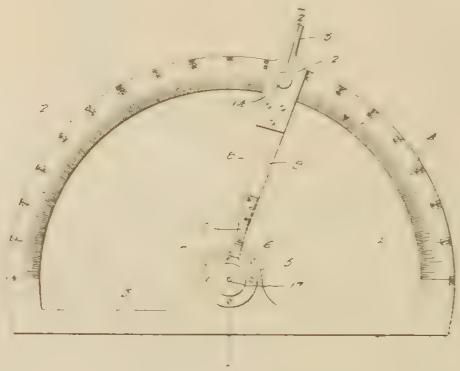
1. A spark plug comprising a mounting sleeve, a core, and a pair of pyramid shaped spark points, secured to the sleeve and core, respectively, with their apexes forming a spark gap, the sides of said spark points, being longitudinally serrated.

1,417,877. ROD PACKING. ARTHUR WRIGHT, Montclair, N. J. Filed Apr. 16, 1919. Serial No. 290,563. 4 Claims. (Cl. 286—1.)



4. The process of preventing leakage along a rod, consisting in introducing a liquid containing solids of suspension into a chamber in the rear of the packing, which is to prevent the said leakage, and causing the said liquid to filter through said packing and the said solids to filter out and prevent further leakage.

1,417,878. SLIDE PROTRACTOR. ROY ABARE, Chazy, N. Y. Filed Apr. 18, 1921. Serial No. 462,165. 1 Claim. (Cl. 33—75.)

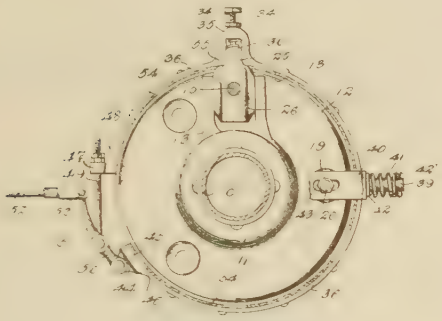


A device of the class described comprising a frame including an arc-shaped scale carrying part and a straight part connecting the ends of the arc-shaped part, said straight part having an inwardly extending centrally arranged enlargement, a stepped socket member secured to said enlargement, a ruler having one end provided with an opening and shaped to engage the socket member, a bolt passing through said opening into the socket member for pivotally securing the ruler to the frame, said ruler and arc-shaped part having overlapping portions, the ruler having its other end passing over and extending beyond the arc-shaped part, a thumb bolt carried by said other end and engaging the arc-shaped part and a handle formed on said extending part.

1,417,879. DENTAL CLASP. HUGO ADERER, East Orange, N. J., assignor to J. F. Jelenko & Co., New York, N. Y., a Firm composed of Jesse F. Jelenko and Hugo Aderer. Filed Nov. 8, 1921. Serial No. 513,698. 6 Claims. (Cl. 32—10.)

1. A dental clasp comprising fingers, said fingers having slits therein whereby the position of the fingers on a tooth may be adjusted.

1,417,880. ATTACHABLE BAND BRAKE. HENRY ALTERGOTT, Sheboygan, Wis. Filed Oct. 1, 1920. Serial No. 414,004. 2 Claims. (Cl. 188—77.)



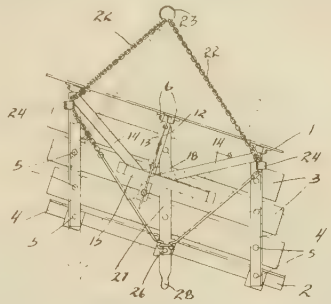
1. The combination with an element fixed with respect to an axle of a perch element attachable thereto and having a lateral arm for disposition adjacent a brake drum, a band element mounted for limited vertical movement on said arm, means yieldingly supporting the band normally above its operative position, a mounting engaged with the band at a distance from said perch element including means constructed for movement of the band toward and away from a circumscribed drum and for longitudinal movement of the band on the said mounting and resilient means directly but yieldingly opposing movement of the band toward the drum at said mounting.

1,417,881. METAL HEEL. FRANK H. ANTHOS, Boston, Mass., assignor of one-eighth to Demetrius George Carzis, Cambridge, Mass., one-eighth to James Carzis, one-eighth to John G. Carzis, and one-eighth to George Picradis, all of Lynn, Mass. Filed July 30, 1920. Serial No. 400,168. 1 Claim. (Cl. 36—40.)

In a heel, the combination with a hollow heel body having a flaring upper end, of a skeleton attaching plate having a peripheral portion adapted to rest against and be secured to the heel seat of a shoe, a central hub portion situated below the peripheral portion and located within the hollow heel body, and curved arms connecting the hub portion and peripheral portion, said arms lying against and having a shape to fit the contour of the inner wall of the flaring end of the heel body, said body having ribs on its inner face which engage the side edges of the arms and retain the heel body and attaching plate in proper relative position, and a screw extending through the heel body and screw-threaded into the hub.

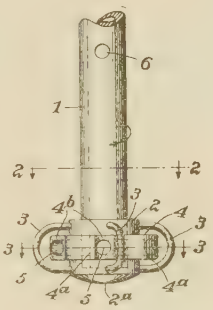
1,417,882. ROAD DRAG. GEORGE G. BAYNE, Bushnell, Ill. Filed Jan. 12, 1920. Serial No. 350,958. 6 Claims. (Cl. 37—5.)

1. In a drag, a front plane, deck members, a rear plane and longitudinal members pivotally connected to the front and rear planes and deck members, a pair of chains, a ring connecting the front ends of the chains together,



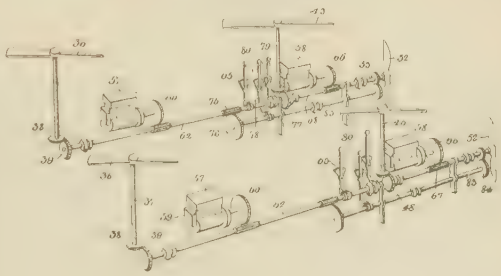
means for connecting the rear ends of the chains to a point adjacent the mid-point of the rear plane, and guide rings for the chains secured to said longitudinal members.

1,417,883. AERATING AND MIXING DEVICE. HENRY SAYLORD BEERS, New York, N. Y., assignor, by mesne assignments, to Air-O-Mix Incorporated. Filed Oct. 3, 1921. Serial No. 505,090. 2 Claims. (Cl. 259—96.)



1. An aerating and mixing device comprising a hollow spindle having its interior designed for atmospheric communication and having at the lower end projecting portions with inclined faces provided with air escape openings and loops cooperating with said openings.

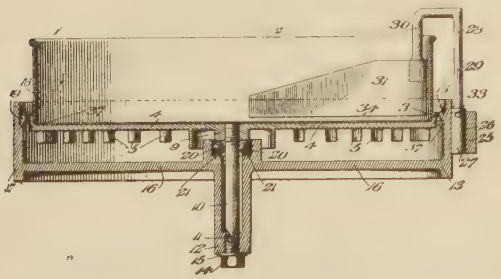
1,417,884. AEROPLANE. ALCIDE J. BERNIER, Washington, D. C. Filed Mar. 20, 1922. Serial No. 545,081. 7 Claims. (Cl. 244—15.)



6. In an aeroplane, a pair of connected fuselages, transverse sustaining planes carried by the fuselages, rear lifting propellers carried by the fuselages, forward lifting propellers carried by the fuselages, forward and rear engines carried by each fuselage, means whereby the rear engine may be connected and disconnected with and from the corresponding rear propeller, separate means whereby the forward engine may be connected and disconnected with and from the forward propeller, a tractor propeller carried by the fuselage, means whereby the

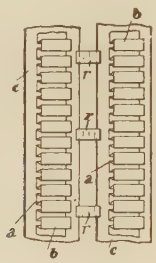
forward and rear engines may be directly connected and disconnected and the forward engine connected and disconnected with the tractor propeller, and means whereby the rear engine may be connected and disconnected with and from the tractor propeller.

1,417,885. PIGMENT-STIRRING PAN. CHARLES P. BOSSERT, Milwaukee, Wis., assignor to Pfister & Vogel Leather Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed May 16, 1921. Serial No. 470,047. 7 Claims. (Cl. 259—88.)



1. In a device of the character stated, an outer casing having an inlet for the motive fluid, a rotary table mounted in said casing and having buckets annularly arranged on the bottom thereof and adapted to receive the impact of the incoming fluid through said inlet, a pigment containing pan open at its top and supported on said table and a stationary blade located within said pan and mounted upon said casing.

1,417,886. MULTICELLULAR ARRANGEMENT FOR THE RAISING OF LIQUIDS. GEORGES ALBERT CARUELLE, Paris, France. Filed Oct. 16, 1919. Serial No. 331,253. 5 Claims. (Cl. 103—6.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

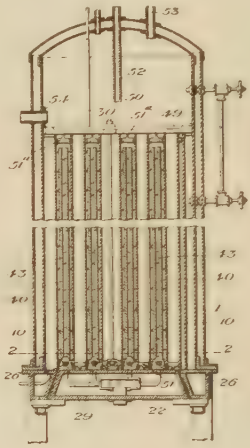


2. A band continuous throughout and formed of flexible material folded back upon itself in the sense of its width to constitute a series of cells of practically wedge shape, superposed upon each other and separated by a thin wall offering but slight resistance to the lateral air, said band adapted to be used alone or fixed flat or edgewise on a support as a flat endless belt or chain so that the band can by plunging with its part in the liquid, fill the cells by simple immersion, retain the liquid by capillary action during the ascent and empty by centrifugal action and its weight.

1,417,887. MANUFACTURE OF POTASSIUM SULPHATE AND HYDROCHLORIC ACID. PAUL COMMENT, Mulhouse, Alsace, France, assignor to Société Fabriques de Produits Chimiques de Thann et de Mulhouse, Mulhouse, Alsace, France. Filed Nov. 4, 1920. Serial No. 421,778. 4 Claims. (Cl. 23—1.)

1. A process for making potassium sulphate and hydrochloric acid, which process consists in mixing finely pulverized potassium chloride with sulphuric acid in such proportions that the moist mixture remains as pulverulent as possible, and heating the mixture in a direct-flame furnace, so that the mixture is first desiccated then heated at about 300° C. and finally heated at about 700° C.–800° C.

1,417,888. HEAT RETAINER FOR WATER HEATERS. MAJOR E. DEARING, Salt Lake City, Utah. Filed Nov. 8, 1918. Serial No. 261,742. 7 Claims. (Cl. 110—97.)

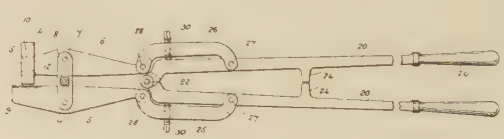


1. In a heater, the combination with an upright sealed hollow heating element, of means for venting the upper end of said sealed hollow heating element, a hollow heat retainer wholly contained within said hollow heating element, and means for supplying heat to the interior of said hollow heat retainer.

1,417,889. PROCESS OF TREATING FIBROUS MATERIALS. DAVID E. DE LAPE, Los Angeles, Calif. Filed Jan. 27, 1917, Serial No. 145,028. Renewed Mar. 8, 1922. Serial No. 542,166. 2 Claims. (Cl. 92—10.)

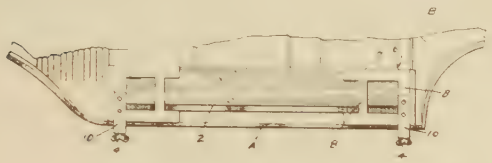
1. A process for treating fibrous material consisting in passing the material between rollers, scraping, brushing, and combing materials subjecting the material to the action of an aqueous solution, consisting of not less than 500 parts of a fluid vehicle such as water, not more than 5 parts of an active reagent or saponifying compound such as caustic soda and not more than 10 parts of a compound containing an oily substance and a substantial percentage of resin, and then pressing material after being removed from the aqueous solution, brushing the same and bleaching.

1,417,890. TOOL FOR BENDING SPRINGS. WILLIAM DANIEL DOONAN, Butte, Mont. Filed Dec. 9, 1921. Serial No. 521,152. 3 Claims. (Cl. 81—15.)



1. A bending tool, comprising two pivoted levers one of which has a straight longitudinal end portion which forms one bending jaw, and a block arranged crosswise of the said jaw and secured to the corresponding end portion of the other lever and provided with a concave bending surface which projects laterally on each side of the said jaw.

1,417,891. FOLDING CAMP TABLE. BENJAMIN B. DUDLEY, Visalia, Calif. Filed June 27, 1921. Serial No. 480,832. 3 Claims. (Cl. 45—116.)



1. In a folding table and in combination with a pair of non-collapsible stools, a plurality of board sections hinged together with the two side sections adapted to fold lengthwise of the intermediate section to provide an open ended box like structure, said noncollapsible stools adapted to be layed on their side and fixed to the running board of an automobile with the legs of the stools presented toward each other and adapted to receive the table when folded and with the seats of the stools providing end closures for the box like structure, said intermediate board section having mounted on its underside two sets of legs adapted to be collapsed and nested upon the surface of the intermediate board section when the table is folded, but capable of overlying both of the side board sections when the table is set up, whereby the legs and their mountings may maintain all of the board sections in substantially the same plane to provide a table surface with the legs supporting the same.

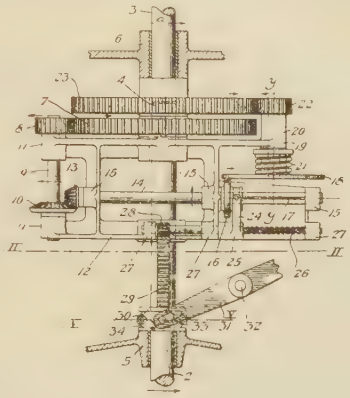
1,417,892. OUTAGE GAUGE. CHARLES F. EHRENTRAUT, Pittsburgh, Pa. Filed June 26, 1918. Serial No. 241,941. Renewed Oct. 31, 1921. Serial No. 511,845. 13 Claims. (Cl. 73—82.)

2. An outage gauge having a thermometer, a float having a level-indicating device, and means for simultaneously locking the float and for registering the thermometer reading.

1,417,893. EDIBLE PRODUCT AND PROCESS OF MAKING SAME. CARLETON ELLIS, Montclair, N. J. Filed Dec. 16, 1918. Serial No. 266,933. 3 Claims. (Cl. 99—13.)

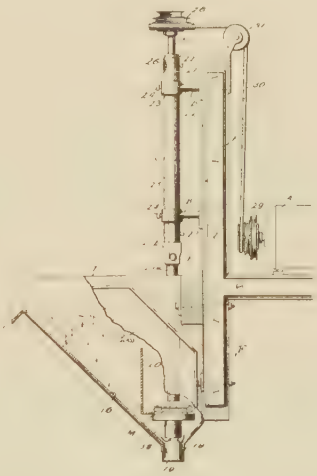
3. A composition comprising medicinal petroleum oil, hydrogenated oil, butyric glyceride and water, said composition having a consistency from that of butter fat to that of lard.

1,417,894. POWER TRANSMISSION AND MECHANISM THEREFOR. HANS ENARD, Pittsburgh, Pa. Filed July 21, 1921. Serial No. 486,350. 6 Claims. (Cl. 74—26.)



1. Power transmitting mechanism comprising a driving gear, a driven gear in axial alinement therewith, oppositely arranged balancing pinions in mesh with each of said gears respectively, and gearing embodying variable transmitting mechanism connecting said pinions.

1,417,895. FLOTATION APPARATUS. ARTHUR W. FAHRENWALD, Moscow, Idaho. Filed May 11, 1920. Serial No. 380,494. 8 Claims. (Cl. 261—87.)

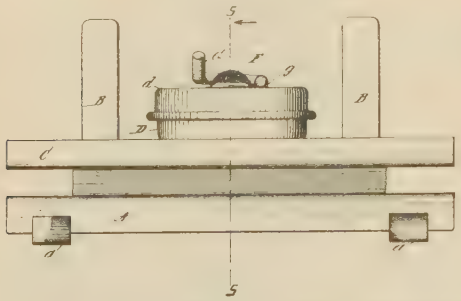


1. A flotation apparatus comprising, a tank, an impeller within the tank comprising spaced plates, a disc between the plates, blades secured to the opposite sides of the disc, means for rotating said disc, and means for supplying ore pulp to one side of the disc and air to the opposite side, for the purpose described.

1,417,896. ELECTRODEPOSITION OF METALS UPON IRON AND ALLOYS OF IRON. ROBERT JOSEPH FLETCHER, London, England, assignor to The Fletcher Electro Salvage Company, Limited, London, England, a British Company. Filed Jan. 17, 1921. Serial No. 437,943. 4 Claims. (Cl. 204—1.)

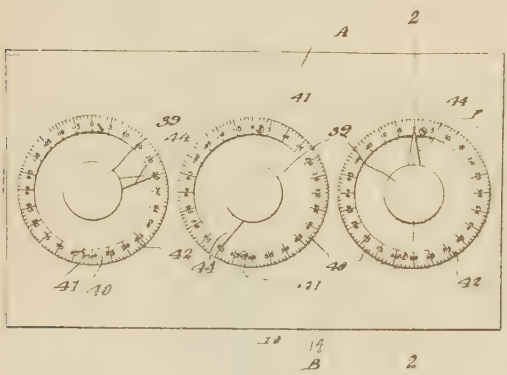
1. A process for the cleansing of the surface of iron or iron alloy prior to the electro-deposition of metals upon such surface, which consists in subjecting the said surface to an electrolytic cleansing treatment by immersing it in an acid bath containing a salt of copper and passing current through the acid bath and the body to be cleansed the said body forming an anode.

1,417,897. ENVELOPE-SEALING DEVICE. EDWARD H. FOOTE, Somerville, Mass., assignor to Standard Envelope Sealer Manufacturing Company, Everett, Mass., a Corporation of Massachusetts. Filed June 16, 1920. Serial No. 389,477. 2 Claims. (Cl. 120—6.)



2. In a device of the character specified, the combination of a base plate provided with a downwardly turned front edge, a sealing plate superimposed upon said base plate and provided with an upwardly turned front edge and a pair of slots located near its rear edge, a pair of posts mounted on said base plate and extending through said slots and a moistener mounted upon said sealing plate.

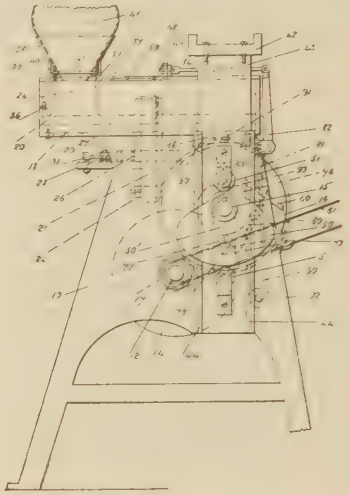
1,417,898. COMBINATION ELECTRIC SWITCH. ALLEN JASPER GARDENHOUR, Waynesboro, Pa. Filed Nov. 15, 1919. Serial No. 338,177. 2 Claims. (Cl. 200—43.)



1. A combination electric lock switch for association with the ignition circuit of an internal combustion engine of a motor vehicle comprising an elongated casing, one of the walls of the casing having a plurality of longitudinally aligned bearing openings formed therein, operating shafts rotatably mounted in the openings, cooperating indicating means carried by the shafts and the mentioned wall of the casing, an insulating disc carried by each shaft for movement therewith, a plurality of pairs of longitudinally aligned contact posts arranged in the casing, means electrically connecting the outer posts of the outer pairs of contact posts with the line wires of the circuit, means electrically connecting the inner posts of the outer pairs of posts to the adjacent posts of the inner pair of posts, substantially U-shaped bridge pieces carried by the inner faces of the insulating discs, and upwardly extending resilient contact springs carried by the pairs of posts arranged to frictionally engage the inner faces of the discs and to contact with the terminals of the U-shaped bridge pieces when the discs have been moved to a predetermined position in relation to the posts.

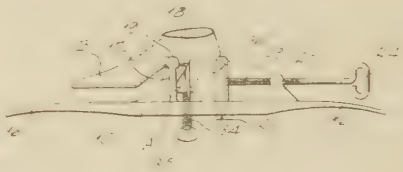
1,417,899. TOBACCO PRESS. LAWRENCE B. GRASBERGER, Richmond, Va. Filed July 15, 1920. Serial No. 396,491. 14 Claims. (Cl. 131—14.)

8. In a press, a stationary press table provided with a discharge opening, a rotary press platen resting on the press table and provided with press chambers which register with the discharge opening, a discharge plunger engaging with the press chambers and discharge opening, a guide arranged horizontally below the press table, a frame working in the said guide, a slidable spring-pressed



oil pan carried by the frame, an oiling roller which transfers oil from the oil pan to the bottom of the discharge plunger, a scraper carried by the said frame and adapted to scrape the bottom of the plunger, and means for reciprocating the said frame at intervals.

1,417,900. REPAIR OUTFIT FOR SHOEMAKERS. FLORYAN GROCHAL, Easthampton, and JOHN OTREBA, Amherst, Mass. Filed Apr. 11, 1921. Serial No. 460,265. 2 Claims. (Cl. 12—125.)



1. In a shoe repairing device for cobblers, the combination with a saddle plate having curved end portions engageable upon the knees of the operator, of a fixed abutment on the saddle plate suited to support the shank and sides of a shoe, an interchangeable clamp slidably engaged with said saddle shaped to engage the heel of a shoe, manually operated means for impelling the clamp and shoe toward the fixed abutment, and means for adjustably supporting the heel of the shoe independently of said clamp.

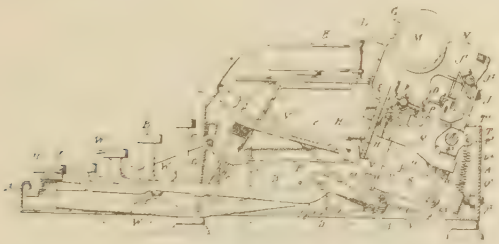
1,417,901. AGRICULTURAL TOOL. GUY L. HEMBREE, Boise, Idaho. Filed June 10, 1921. Serial No. 476,381. 3 Claims. (Cl. 294—49.)

1. A device of the class described comprising a handle, a ferrule receiving the forward portion of the handle, a head of disk shaped formation connected to the forward end of said ferrule and having a pair of spaced forwardly directed fingers gradually tapered toward their

free ends, and a fork having a back piece about which said fingers are snugly bent, said fingers lying closely in

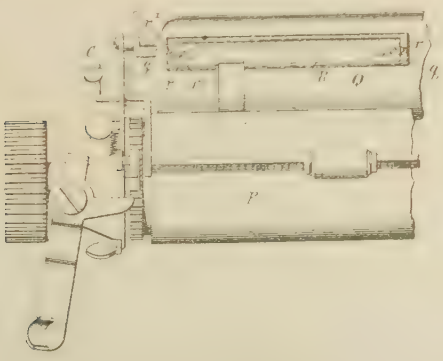
contact with said back piece and on opposite sides of the intermediate tine of the fork.

1,417,902. TYPEWRITING MACHINE. EDWARD BERNARD HESS and LEWIS CARY MYERS, Brooklyn, N. Y., assignors to Royal Typewriter Company, Inc., New York, N. Y. Original application filed Jan. 13, 1921, Serial No. 436,924. Divided and this application filed May 27, 1921. Serial No. 473,161. 29 Claims. (Cl. 197—60.)



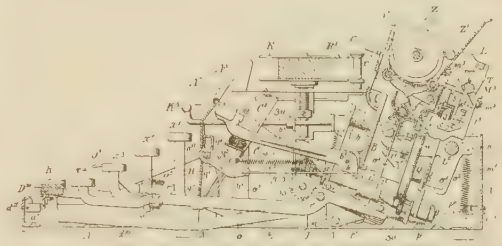
1. In a typewriting machine the combination of a carriage support movable for case printing, a rigid abutment, and an arm extending from the carriage support to the rigid abutment and permanently engaged with said abutment but movable thereon.

1,417,903. MARGIN SCALE FOR TYPEWRITING MACHINES. EDWARD BERNARD HESS and LEWIS CARY MYERS, Brooklyn, N. Y., assignors to Royal Typewriter Company, Inc., New York, N. Y. Original application filed Jan. 13, 1921, Serial No. 436,924. Divided and this application filed May 27, 1921. Serial No. 473,162. 6 Claims. (Cl. 197—63.)



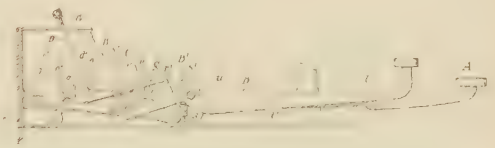
1. A paper table for typewriting machines carrying a guide rod at its lower end, and a depressed portion in its upper surface entirely below its upper edge, a scale mounted for adjustment in said depressed portion, and a paper guide supported by the rod, said guide cooperating with the scale and adjustable endwise thereof.

1,417,904. TYPEWRITING MACHINE. EDWARD BERNARD HESS and LEWIS CARY MYERS, Brooklyn, N. Y., assignors to Royal Typewriter Company, Inc., New York, N. Y. Original application filed Jan. 13, 1921, Serial No. 436,924. Divided and this application filed May 27, 1921. Serial No. 473,164. 24 Claims. (Cl. 197—22.)



8. In a typewriting machine, a keyboard having a plurality of banks of keys, a platen, a platen carriage, a shift frame having a track on which said carriage is mounted to travel, all of said parts being inclined rearwardly from the vertical, a type segment similarly inclined, type bars pivoted at their rear ends and inclined forwardly and upwardly, a front rest for said type bars holding them in a fan shape, parallel links supporting the shift frame, and means engaging one of said links for shifting the frame in an oblique direction upwardly and rearwardly.

1,417,905. BACK-SPACE MECHANISM FOR TYPEWRITING MACHINES. EDWARD BERNARD HESS and LEWIS CARY MYERS, Brooklyn, N. Y., assignors to Royal Typewriter Company, Inc., New York, N. Y. Original application filed Jan. 13, 1921, Serial No. 436,924. Divided and this application filed May 27, 1921. Serial No. 473,165. 6 Claims. (Cl. 197—91.)

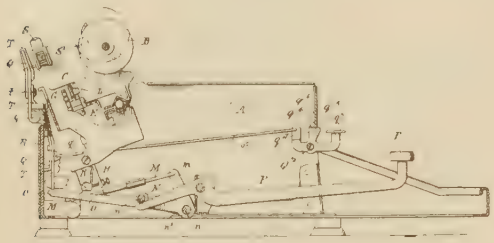


1. In a typewriting machine, a carriage, escapement mechanism therefor, a frame supporting said escapement mechanism, a back space lever, a slide carried by said escapement frame, connection between the back space lever and the slide, a pawl carried by the slide and adapted to engage an element of the escapement mechanism, and a rigid tooth on the slide also engaging the same element of the escapement mechanism to prevent overthrow.

1,417,906. LINE-LOCK MECHANISM AND MARGIN-RELEASE MECHANISM FOR TYPEWRITING MACHINES. EDWARD BERNARD HESS and LEWIS CARY MYERS, Brooklyn, N. Y., assignors to Royal Typewriter Company, Inc., New York, N. Y. Original application filed Jan. 13, 1921, Serial No. 436,924. Divided and this application filed May 27, 1921. Serial No. 473,167. 11 Claims. (Cl. 197—112.)

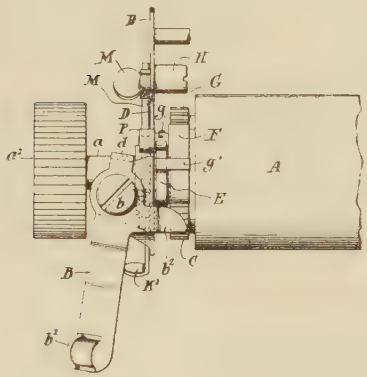
1. In a typewriting machine, pivoted key levers, a carriage, escapement mechanism therefor, a universal bar pivotally mounted in rear of the pivots of the key levers

for operating the escapement mechanism and which is provided with a rearwardly extending, vertically moving



line lock arm, and a line lock lever engaged by the carriage and operating upon the line lock arm of the universal bar.

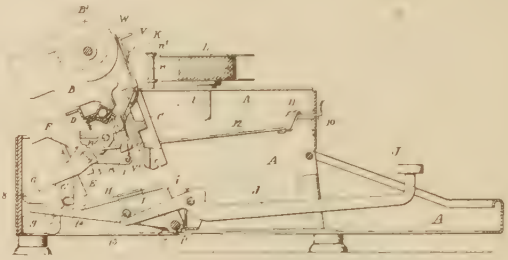
1,417,907. LINE-SPACING MECHANISM FOR TYPEWRITING MACHINES. EDWARD BERNARD HESS and LEWIS CARY MYERS, Brooklyn, N. Y., assignors to Royal Typewriter Company, Inc., New York, N. Y. Original application filed Jan. 13, 1921, Serial No. 436,924. Divided and this application filed May 27, 1921. Serial No. 473,169. 2 Claims. (Cl. 197—114.)



1. In a typewriting machine, a platen, a frame in which it is mounted, a ratchet wheel secured to the platen, a pawl adapted to engage the wheel, a lever adapted to move about the axis of the platen, a lever for swinging said lever to cause the pawl to engage the ratchet and turn the platen, an adjustable stop for limiting the rearward movement of the pawl, a pin on the pawl, and a lever having an arm adapted to engage the pin to hold the pawl in proper position to engage the desired tooth of the ratchet wheel.

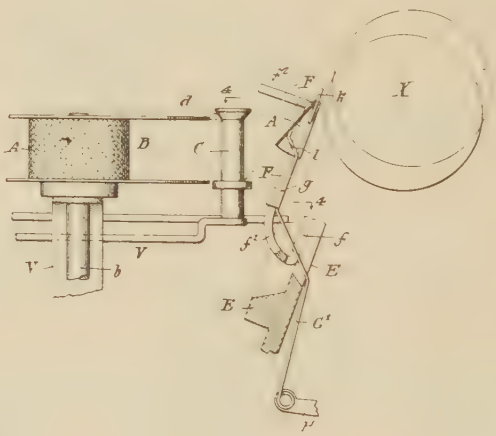
1,417,908. RIBBON OPERATING AND GUIDING MECHANISM FOR TYPEWRITING MACHINES. EDWARD BERNARD HESS and LEWIS CARY MYERS, Brooklyn, N. Y., assignors to Royal Typewriter Company, Inc., New York, N. Y. Original application filed Jan. 13, 1921, Serial No. 436,924. Divided and this application filed May 27, 1921. Serial No. 473,170. 4 Claims. (Cl. 197—151.)

3. In a typewriting machine, a platen, ribbon spools revolving in a horizontal plane below the line of print, fixed guide rollers for the ribbon provided with coned upper ends, each guide roller located behind its spool and slightly inward from the center thereof, and an inclined



vertically reciprocating vibrator adjacent the platen to which the ribbon passed in an upward path from the rollers.

1,417,909. RIBBON GUIDE FOR TYPEWRITING MACHINES. EDWARD BERNARD HESS and LEWIS CARY MYERS, Brooklyn, N. Y., assignors to Royal Typewriter Company, Inc., New York, N. Y. Original application filed Jan. 13, 1921, Serial No. 436,924. Divided and this application filed May 27, 1921. Serial No. 473,171. 8 Claims. (Cl. 197—170.)

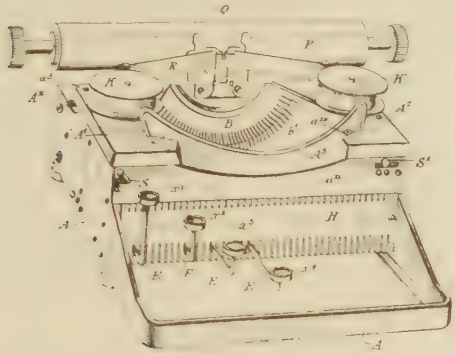


1. A vibrator for typewriting machines having a body portion, ribbon-guiding portions for the upper portion of the ribbon, and separate ribbon-guiding portions for the lower portion of the ribbon arranged in transverse vertical planes outside the upper ribbon-guiding portions and extending forwardly therefrom.

1,417,910. TYPEWRITING MACHINE. EDWARD BERNARD HESS and LEWIS CARY MYERS, Brooklyn, N. Y., assignors to Royal Typewriter Company, Inc., New York, N. Y. Original application filed Jan. 13, 1921, Serial No. 436,924. Divided and this application filed May 27, 1921. Serial No. 473,172. 17 Claims. (Cl. 197—186.)

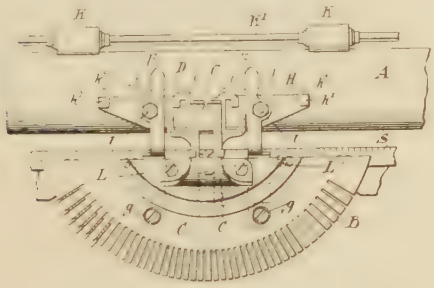
1. A typewriting machine in which the platen is obliquely arranged and is provided with mechanism for moving it obliquely for case printing and in which the key-levers and type-bars are arranged substantially hori-

zontally with dust-sheds horizontally arranged and covering the front part of the machine, the ribbon spools



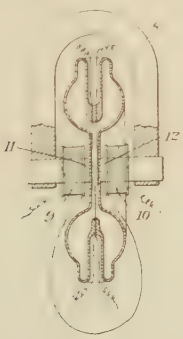
being horizontally arranged below the line of print and above the dust sheds, which are connected by an interposed bridge-piece.

1,417,911. SCALE FOR TYPEWRITING MACHINES. EDWARD BERNARD HESS and LEWIS CARY MYERS, Brooklyn, N. Y., assignors to Royal Typewriter Company, Inc., New York, N. Y. Original application filed Jan. 13, 1921. Serial No. 436,924. Divided and this application filed May 27, 1921. Serial No. 473,173. 6 Claims. (Cl. 197—194.)



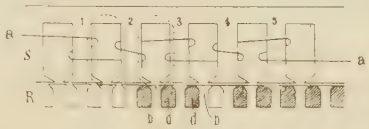
1. A scale for typewriting machines having a central opening and carrying on each side of the opening a plurality of projections adapted to bear on the card, envelope or paper with which it engages, and a bracket to which the scale is secured and which is rigidly attached to the shift frame.

1,417,912. VACUUM ELECTRIC APPARATUS. PETER COOPER HEWITT, Ringwood Manor, N. J. Filed June 24, 1916. Serial No. 105,545. 16 Claims. (Cl. 250—27.)



1. In an electric apparatus, a container having wall portions terminating in parallel flat surfaces, an electric circuit traversing the space between said surfaces, and means applied to said parallel surfaces for controlling the reactions in said container.

1,417,913. APPARATUS FOR GENERATING HIGH-FREQUENCY ELECTRIC CURRENTS. ALEXANDER HEYLAND, Brussels, Belgium. Filed July 28, 1914. Serial No. 853,766. 4 Claims. (Cl. 171—252.)



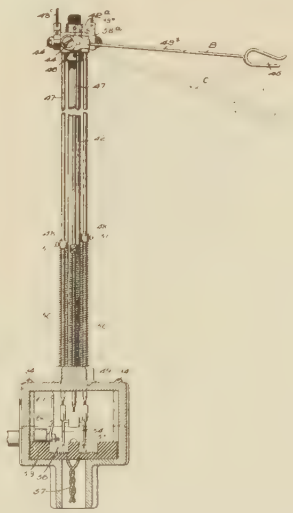
1. An electrical machine comprising in combination a relatively movable field and armature, said field having a plurality of poles, and said armature having its iron surface in the form of segments, said segments being adapted to individually and successively magnetically bridge the pole tips of opposite polarity, and means forming a short circuit around each of said segments.

2. An electrical machine comprising in combination a pole system and an armature system, said armature system presenting a surface in the form of a plurality of segments, each of said segments being adapted to successively magnetically bridge the pole tips of opposite polarity when the centre of the surface of the individual segment is midway between the poles which are bridged thereby, and means forming a short circuit around each of said segments.

3. An electrical apparatus comprising in combination a pole system and an armature system, said armature system presenting a surface in the form of a plurality of segments, and connected conducting metal intermediate said segments, said segments being adapted individually to magnetically bridge the pole tips of opposite polarity.

4. An electrical apparatus comprising in combination a pole system, and an armature system consisting of suitable magnetic pieces, said pieces being surrounded by connected electrically conducting metal and being adapted individually to bridge the pole tips of opposite polarity.

1,417,914. ELECTRICAL STOP MOTION FOR KNITTING MACHINES. EDSON S. HINELINE, Providence, R. I., assignor to Hineline Engineering Company, Pawtucket, R. I., a Corporation of Rhode Island. Filed Jan. 11, 1922. Serial No. 528,358. 38 Claims. (Cl. 66—7.)



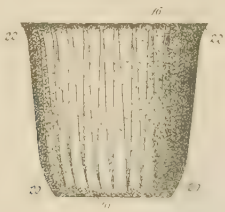
2. An electrical stop motion for textile mechanism having in combination, shipper mechanism, an electromagnetic circuit and an armature, a contact, a rod having an up and down movement and having at its lower end portion a contact to engage the first mentioned contact,

and a lever at the upper end portion of and connected to said rod, and having an open end out of which the yarn may slip upon the occurrence of undue tension, the construction and arrangement of the said parts being such that electrical contact is made prior to yarn slippage and without putting appreciable strain upon the yarn.

1,417,915. DOLL. ADDIE H. HORNSBY, Omaha, Nebr. Filed July 29, 1920. Serial No. 399,690. 4 Claims. (Cl. 46—46.)

1. A toy made from blank material having a body portion and an incision adjacent to the same to define a head portion, and a garment portion foldable intermediate the body portion and head portion substantially along the line of the shoulders and over the body portion.

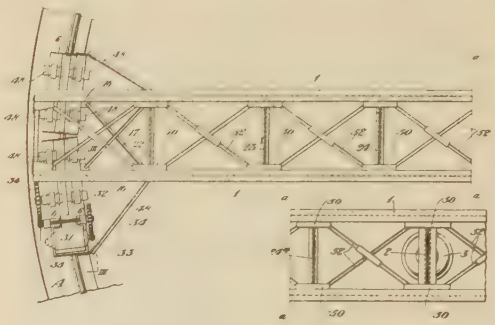
1,417,916. DRINKING VESSEL AND PROCESS OF MAKING SAME. HENRY A. HOUSE, Bridgeport, Conn., assignor to Public Service Cup Co., Brooklyn, N. Y., a Corporation of New York. Original application filed Apr. 20, 1911, Serial No. 622,293. Divided and this application filed Feb. 28, 1922. Serial No. 539,822. 5 Claims. (Cl. 229—3.1.)



5. A drinking cup, consisting of a paper base having a cup shape, the cells of which are throughout the entire paper base filled with paraffin congealed from melted paraffin applied to the cup shaped paper base before the latter has lost the heat of its creation.

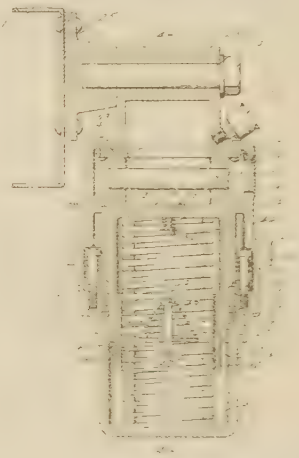
1,417,917. CONTINUOUS-GIRDER TURNTABLE. OTIS E. HOVEY, New York, N. Y. Filed Nov. 26, 1921. Serial No. 517,867. 9 Claims. (Cl. 104—35.)

3. A continuous girder turntable comprising a pair of continuous girders, at least three non-yielding supports for each of said girders, suitable horizontal and vertical supporting members arranged to support said girders, wheeled truck members mounted on each end of said girders, an extended cantilever end on said trucks, a motor



mounted on said cantilever and a suitable gearing connecting said motor and the driving wheel of the truck.

1,417,918. SHOCK-ABSORBER MECHANISM. GEORGE H. IRWIN, Chicago, Ill. Filed June 13, 1919. Serial No. 303,914. 4 Claims. (Cl. 267—8.)

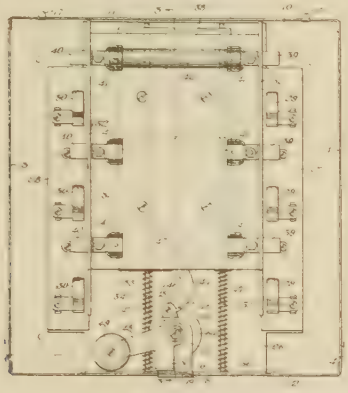


1. A shock absorber device comprising a cylinder member, a main piston member reciprocable within said cylinder member, a floating piston member reciprocable within said main piston member, a light compression spring between said floating piston member and the upper wall of said main piston member, a heavier compression spring between said floating piston member and the bottom of said cylinder member, fluid in said cylinder member, a check valve in said floating piston member, said check valve permitting free downward movement of said floating piston structure, but retarding the upward movement thereof, means for permitting the outflow of air from said main piston member when said member is shifted downwardly, and means for retarding the inflow of air when said piston rises, whereby to retard the upward movement thereof.

1,417,919. PROCESS OF OBTAINING POTASSIUM FROM NATURAL POTASSIUM COMPOUNDS. DANIEL D. JACKSON, Brooklyn, N. Y. Filed June 29, 1920. Serial No. 392,733. 12 Claims. (Cl. 23—22.)

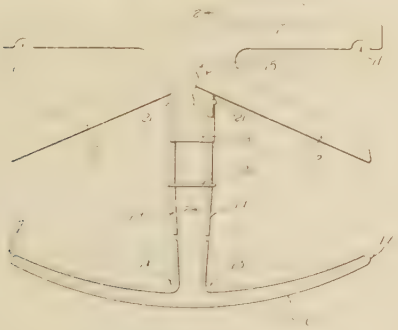
1. The process of obtaining potassium salts from mixtures containing a natural potassium compound which consists in mixing together the said material with lime and a haloid salt, and heating the mixture at temperatures below the clinkering temperature range of the mixture but high enough to give a vapor pressure of potassium halide which will cause its rapid volatilization.

1,417,920. SERVICE SWITCH. JOHN A. JESSEN, Winthrop, Mass., assignor to The Palmer Electric & Manufacturing Company, Boston, Mass., a Corporation of Maine. Filed Nov. 6, 1917. Serial No. 200,591. 9 Claims. (Cl. 200—50.)



1. A closed metallic case having a slidable door, stationary line contacts in the case, a carrier in the case having movable contacts for engaging and disengaging the line contacts, a rock shaft, operative connections between said shaft and said carrier, a cam on said shaft, and an associated member on said door, whereby the door is locked shut when the carrier is in closed position, and the carrier is locked in open position when the door is open.

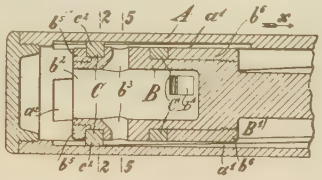
1,417,921. WARDROBE HANGER. RAY SCOTT KITCHINGMAN, Racine, Wis. Filed Dec. 27, 1921. Serial No. 525,008. 3 Claims. (Cl. 211—13.)



1. The combination of a coat hanger, a one-piece dress hanger, a flat socket member having apertures therein downwardly directed from said coat hanger and having surfaces substantially continuous with the surfaces of the coat hanger, and a pair of resilient members received within said socket member and having their ends projecting through said apertures, said resilient members supporting said one-piece dress hanger, the sides of said socket member contacting with said resilient members throughout a considerable length thereof, to prevent lateral movement of said resilient members with respect to said socket member, said resilient members being movable towards each other on the exertion of force thereon by the hand whereby said resilient members may readily be positioned in and secured to said socket members.

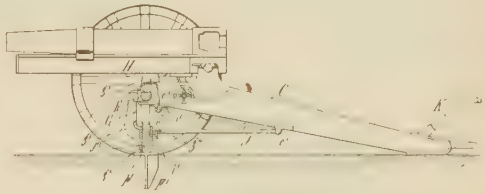
1,417,922. DEVICE FOR ADJUSTING THE RECOIL LENGTH OF FLUID BRAKES FOR GUN CARRIAGES. NORBERT KOCH, Essen-Rellinghausen, Germany, assignor, by mesne assignments, to The Alien Property Custodian. Filed Feb. 3, 1915. Serial No. 5,900. 5 Claims. (Cl. 89—43.)

1. A device for adjusting the recoil length in fluid recoil brakes, having a piston and a part cooperating with the piston, said part being provided with a primary helical groove and a secondary helical groove, and said piston with a primary aperture and a secondary aperture corresponding, respectively, to said primary and secondary grooves; said primary groove and aperture operating during all recoil lengths, and said secondary groove and aperture being of less cross sectional area than the aforesaid primary groove and aperture, and being out of operation during the shortest recoil.



5. A device for adjusting the recoil length in fluid recoil brakes, having a piston and a part cooperating with the piston, said part being provided with a primary helical groove and a secondary helical groove, and said piston with a primary aperture and a secondary aperture corresponding, respectively, to said primary and secondary grooves; said primary groove and aperture operating during all recoil lengths, and said secondary groove and aperture being out of operation during the shortest recoil; said primary groove having approximately double the width of and a greater pitch than said secondary groove; said primary and secondary apertures having the same transverse width as the secondary groove.

1,417,923. AXLE SPADE FOR MOBILE ARTILLERY. NORBERT KOCH, Essen-Rellinghausen, Germany, assignor, by mesne assignments, to The Alien Property Custodian. Filed Dec. 26, 1913. Serial No. 808,854. 4 Claims. (Cl. 89—42.)

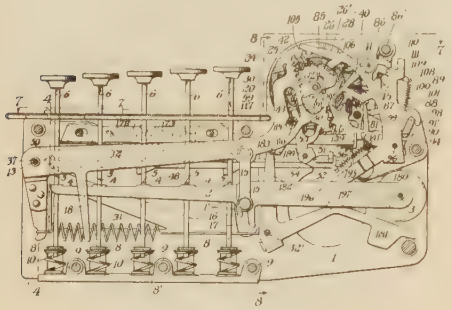


1. An anchorage device for gun carriages comprising an anchoring portion and a carriage abutting portion; a locking member on the carriage detachably connected to said abutting portion, whereby said two portions will be released from the carriage upon the detachment of said locking member from said abutting portion.

1,417,924. COMPUTING MACHINE. ANDRÉ KORONSKI, Narberth, Pa. Filed Apr. 22, 1913, Serial No. 762,776. Renewed Sept. 17, 1920. Serial No. 410,977. 27 Claims. (Cl. 235—59.)

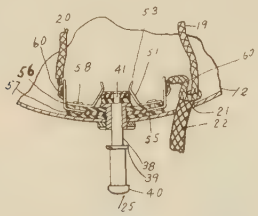
12. In a computing machine, the combination of a numeral wheel, means for actuating the same, a numeral wheel of higher denomination situated adjacent thereto, a revoluble stop member, a motor spring having connection with the numeral wheel of lower denomination and with the said revoluble stop member, a pivoted two-armed release and stop device having its arms situated upon the opposite sides of the said revoluble stop member, the stops upon the said arms being adapted to be alternately engaged by the said revoluble stop member, a cam upon the said numeral wheel of lower denomination for causing movement of the said pivoted stop member to cause alternating engagement and disengagement of the said revoluble stop member therewith, and means intermediate the said revoluble stop member and the numeral wheel of higher de-

nomination to cause a one-step revolution of the latter upon the releasing of said revoluble stop member.



23. In a computing machine, the combination of a series of keys, a column actuator, a numeral wheel adapted to be actuated by the said column actuator, means for preventing said numeral wheel from over-running, a locking bar, a spring-pressed lever for holding the said locking bar in normally unlocking position, a pivoted member supported upon the said lever, means upon the said column actuator for engaging the said member upon upward movement after only a partial depression to effect pivotal movement of the said lever to release the said locking bar, means actuated by the complete depression of a key, to cause pivotal movement of the said member out of position to be engaged by the said means upon the said column actuator, and means for retaining the said member in such position until after the actuator has returned after a complete depression to its normal position.

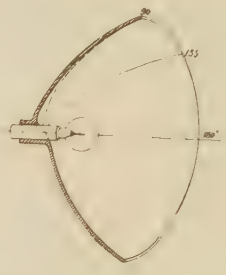
1,417,925. ELECTRIC SWITCH. EUGENE A. KUEN, Cincinnati, Ohio, assignor to The Thos. J. Corcoran Lamp Company, Cincinnati, Ohio, a Corporation of Ohio. Filed May 24, 1920. Serial No. 383,910. 3 Claims. (Cl. 200—163.)



2. In a switch, the combination of a base comprising a plurality of insulating layers, electro-conductive fingers attached thereto in separated relation, a threaded sleeve received through said insulating layers between said electro-conductive fingers, said sleeve provided with a flange at one side of said layers, a nut threaded to said sleeve at the opposite side of said layers for clamping said insulating layers between said flange and said nut, an axially movable stem in said sleeve the axis whereof is located between said fingers, and an electro-conductive part and an insulating part on said stem arranged to respectively coact with said electro-conductive fingers by axial movements of said stem in opposite directions.

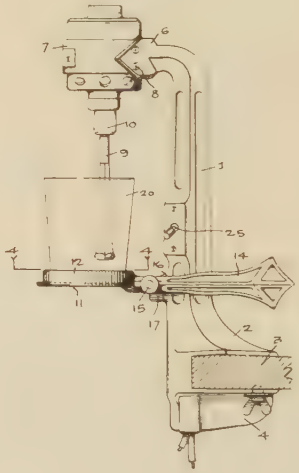
1,417,926. REFLECTOR FOR AUTOMOBILE HEADLIGHTS, ETC. CHARLES AUSTIN LESTER, Winona, Minn. Filed Apr. 13, 1920. Serial No. 373,546. 4 Claims. (Cl. 240—41.)

4. A reflector having a reflecting surface composed of a series of parabolic elements having a series of axes, all in the same vertical plane, which make different angles with the main axis of the reflector, the angle made by any given axis with the said main axis increasing in each quadrant in a given ratio to the angle made by said



element with a horizontal plane passed through said main axis, whereby when said main axis is held in the horizontal plane the highest-rising rays reflected from any given point on the surface of the reflector are caused to assume a substantially horizontal position.

1,417,927. FLUID MIXER. HENRI G. LEVY, San Francisco, Calif. Filed May 9, 1921. Serial No. 467,804. 5 Claims. (Cl. 259—134.)

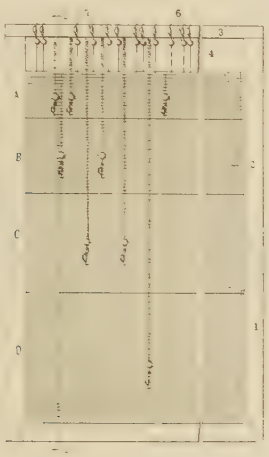


1. A device such as described, comprising in combination a standard; a motor fixed thereon and having an agitator projecting therefrom; and a platform pivotally mounted on said standard and having counterbalance arms extending on both sides of said standard.

1,417,928. INDICATING APPARATUS. CHESTER B. LORD, Battle Creek, Mich. Filed Nov. 23, 1921. Serial No. 517,218. 11 Claims. (Cl. 40—19.5.)

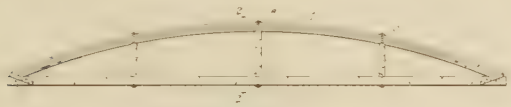
5. In an indicating apparatus, the combination of a frame, a plurality of spaced parallel vertically disposed wires crossed by a plurality of spaced parallel horizontally disposed wires, means dividing the said series of wires into a plurality of horizontal zones, indicators pro-

vided with retaining means adapted to enter spaces formed between the horizontal and vertical wires, and means



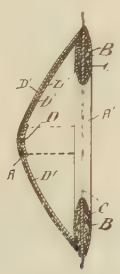
adapted to return the indicators to predetermined positions when released from the wires.

1,417,929. TRUSS. JOHN C. MCKEOWN, Chicago, Ill. Filed Sept. 20, 1919. Serial No. 325,243. 2 Claims. (Cl. 14—9.)



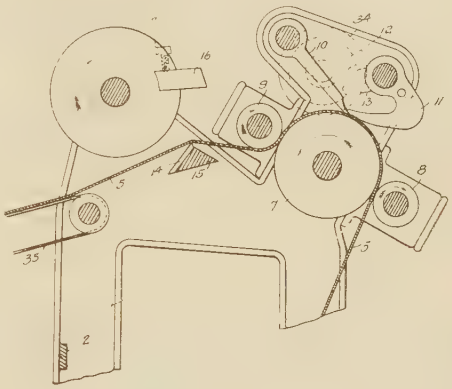
1. In a truss, the combination of a bowed top chord and a bottom chord, means for rigidly connecting the ends of the top chord to the bottom chord, and bracing for said truss comprising only tie rods which connect said top and bottom chords, stanchions inserted between said top and bottom chords, said stanchions being provided with holes formed lengthwise through the same through which said tie rods extend, said stanchions comprising a plurality of connected longitudinal sections and the holes therein being formed by grooves formed in the connected sides of said sections, substantially as described.

1,417,930. SURGICAL BUST SUBSTITUTE. LAURA E. MAILLEUE, Vancouver, British Columbia, Canada. Filed May 14, 1919. Serial No. 297,030. 3 Claims. (Cl. 2—87.)



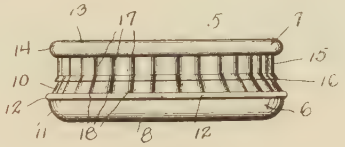
1. A surgical bust substitute comprising an annular casing of soft pliable material, a filler disposed within said casing, a frame composed of resilient strips arched above and secured to said casing, a fabric cover for said frame, and means for attaching the structure to a form.

1,417,931. COATING FOUNTAIN AND THE LIKE. AXEL C. V. MALM, Lansdowne, Pa., assignor to American Engineering Corporation, New York, N. Y., a Corporation of New York. Original application filed Oct. 7, 1918, Serial No. 257,126. Divided and this application filed Jan. 2, 1919, Serial No. 269,285. Renewed Nov. 4, 1921. Serial No. 512,937. 10 Claims. (Cl. 91—30.)



1. In a mechanism of the character described, means for advancing a sheet of flexible material, a device for supporting a quantity of viscous cement and for applying the same to the surface of said material, and automatically controlled means to render said cement applying device inoperative during a portion of the time said sheet is being advanced, whereby a part only of said sheet will be coated with cement.

1,417,932. METAL BOX. ALEXANDER R. MANN, Montreal, Quebec, Canada. Filed Feb. 28, 1921. Serial No. 448,415. 1 Claim. (Cl. 220—42.)

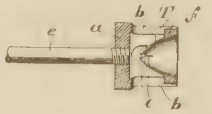


A box of the character described comprising a body portion and a cover therefor, said body portion including a bottom and circular side wall, the latter being tapered from the juncture of the bottom inwardly, a bead extending around the edge of said bottom at its juncture with the tapered side wall, the cover of said tapered side wall having a circular upper edge, said cover comprising a top having a rounded edge, a circular side wall extending from the rounded edge of said cover and being of a dimension smaller than that of the greatest dimension of said cover, the circular side wall of the cover fitted over the circular portion of the side wall of the body portion, the lower edge of said circular side wall of the cover being flared to engage the tapered portion of the side wall of the body, and the said side walls of the body portion and the cover each having interfitting spaced parallel corrugations extending vertically therein, said corrugations being spaced relatively close to each other, substantially as and for the purposes set forth.

1,417,933. STRUCTURE FOR OPERATING UPON CIGAR WRAPPINGS. ALBERT E. MASPONS, Philadelphia, Pa. Filed Feb. 11, 1920. Serial No. 357,986. 9 Claims. (Cl. 131—11.)

9. Structure for dressing the foil upon a foil-wrapped cigar comprising a member rotatable with respect to the

cigar and having a recess adapted to receive the foil-wrapped cigar, said recess having a wall for smoothing

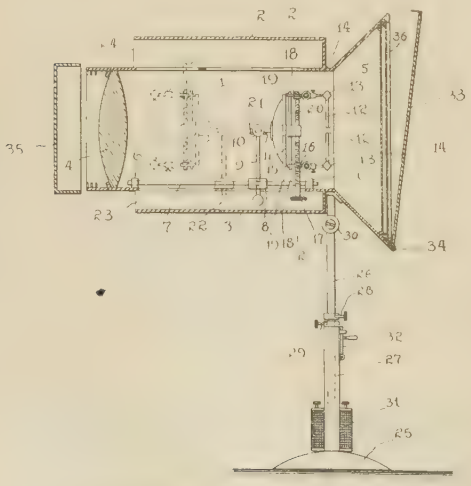


the foil, and said member having an aperture forming a foil-removing edge.

1,417,934. HEEL PROTECTOR FOR LADIES' SHOES. FLORA E. MILLER, Sparta, Ill. Filed May 1, 1920. Serial No. 378,277. 1 Claim. (Cl. 36—72.)

A heel protector for ladies' shoes comprising a thin flat strip of elastic material having a central body portion having a convexed upper edge and having its lower edge converging to a point midway the ends of said body portion, one end of said central body portion terminating in a short narrow strap member, a plurality of snap fastener heads fixed to said short strap member, the opposite end of said central body portion terminating in a long narrow strap member and a snap fastener button fixed to the free end of said long strap member adapted for locked engagement with any one of the snap fastener heads of the short strap member to securely hold the protector in position upon the heel of a shoe.

1,417,935. THEATRICAL LAMP. FREDERICK MITCHELL, Brooklyn, N. Y., assignor of one-half to Charles McCabe Ford, Brooklyn, N. Y. Filed June 18, 1921. Serial No. 478,740. 3 Claims. (Cl. 240—3.)

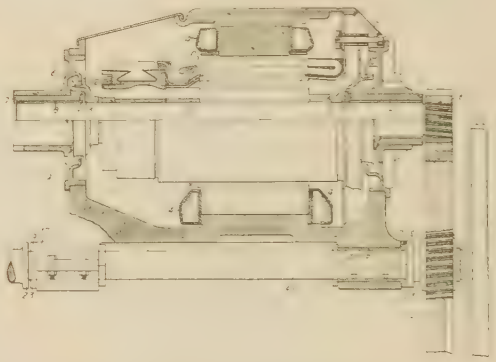


1. A lamp comprising a casing having light concentrating means at one end and light spreading means at its opposite end, and a longitudinally adjustable light organism, reversibly mounted in said casing, to co-act respectively with said light concenerating means and light spreading means.

1,417,936. REENFORCED BRIDGE SPAN. RALPH MODJESKI, Philadelphia, Pa. Filed Sept. 26, 1921. Serial No. 503,187. 15 Claims. (Cl. 14—1.)

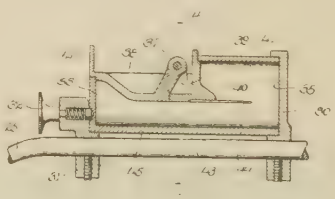
1. In a reenforced bridge structure the combination of an original span comprising trusses, end supports therefor, and a floor comprising transverse floor beams, a supplementary span comprising trusses, and end supports therefor positioned sufficiently higher than the end supports for the original span that said supplementary span will clear the floor of the bridge, the trusses of said supplementary span comprising web members which are extended down and are connected to the floor beams of the bridge, substantially as described.

1,417,937. GEAR FOR RAILWAY MOTORS. WILLIAM E. MOORE, Milwaukee, Wis., assignor to R. D. Nuttall Company, a Corporation of Pennsylvania. Filed Aug. 1, 1919. Serial No. 314,596. 17 Claims. (Cl. 74—41.)



1. In a railway vehicle, the combination with a wheel axle, an electric motor having an armature shaft parallel to said axle and a frame containing axle and shaft bearings, of a single helical gear wheel on the axle and a single directly co-operating helical gear wheel on the shaft for operatively connecting the axle and the shaft.

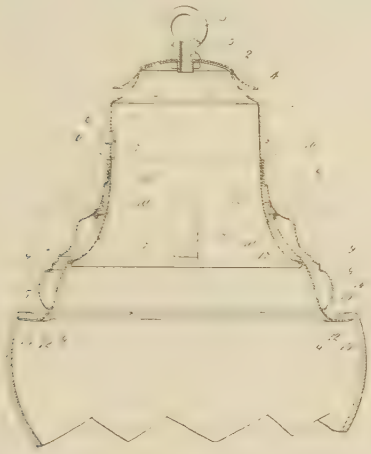
1,417,938. DENTAL FLASK. JAMES J. MOUNT, Chicago, Ill. Filed Sept. 29, 1921. Serial No. 504,171. 2 Claims. (Cl. 22—97.)



1. A device of the class described comprising a flask adapted for support on a centrifugal casting machine, said flask having a removable section comprising a pair

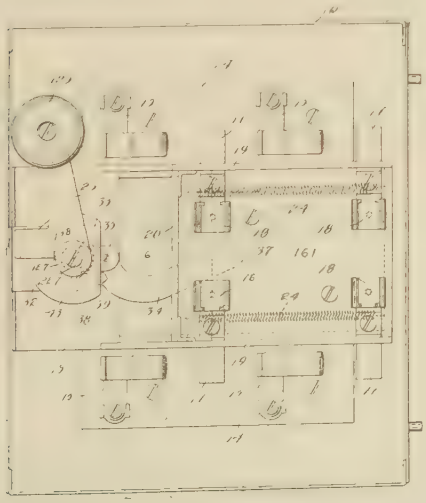
of hinged parts, a pattern integrally formed on said removable section for molding a crucible, and a sprue mounted on one of said hinged parts for supporting a fusible pattern adapted to mold a matrix, said sprue being arranged to mold a channel providing communication between the matrix and crucible.

1,417,939. HOLDER FOR GLOBES. BARNET NEWLAND, New York, N. Y., assignor to Incandescent Supply Company, a Corporation of New York. Filed July 26, 1921. Serial No. 487,691. 3 Claims. (Cl. 240—115.)



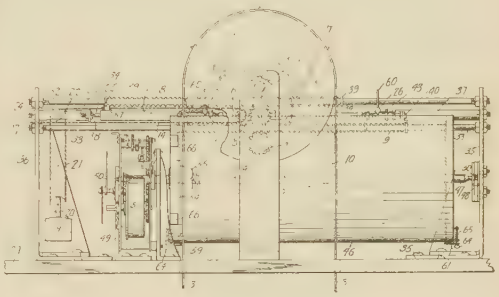
1. A holder for globes comprising, in combination, a screw ring, heat shield, and bell-shaped body, a wire passage through said screw ring, heat shield and body, heat vents in and a spring pressed button projecting through said body, a removable apron, slidably mounted on said body, hinged leaves fastened thereto, said leaves having flared lips at the ends thereof adapted to support the globe, the flare on said body being adapted to support said apron and keep the leaves in contact with the globe, for the purpose described.

1,417,940. SERVICE SWITCH. GRANVILLE E. PALMER, Boston, Mass., assignor to The Palmer Electric & Manufacturing Company, Boston, Mass., a Corporation of Maine. Filed Apr. 12, 1918. Serial No. 228,102. 5 Claims. (Cl. 200—50.)



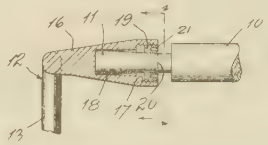
1. A service switch comprising a slide carrying movable contacts, a toggle including a straight link and a curved link arranged to move said slide in opposite directions to closed and open positions respectively, and, when in dead-center positions, to lock said slide in said open and closed positions, spring mechanism for automatically moving said slide to open position, an oscillatory member, and lost-motion means connecting said toggle and said member whereby said slide is operated in one direction to closed and locked position by said member and said toggle, and said slide may be operated in the other direction to open and locked position by said spring mechanism independently of said member.

1,417,941. VENTURI FLUME WATER-STAGE-RECORDING INSTRUMENT. RALPH L. PARSHALL, Fort Collins, Colo. Filed July 27, 1921. Serial No. 488,009. 5 Claims. (Cl. 234—10.) (Filed under the act of Mar. 3, 1883, 22 Stat. L., 625.)



1. A Venturi flume recorder comprising a sliding carriage, a differential gear adapted for translational movement with a two for one ratio attachment including a pulley supported from the differential gear for actuating the sliding carriage, the latter supporting a scribing instrument.

1,417,942. CULTIVATOR. CHARLES PUTKOWSKI, Staten Island, N. Y., assignor of one-half to Wladyslaw Bronicki, Marine Harbor, N. Y. Filed Aug. 11, 1921. Serial No. 491,383. 1 Claim. (Cl. 306—31.)

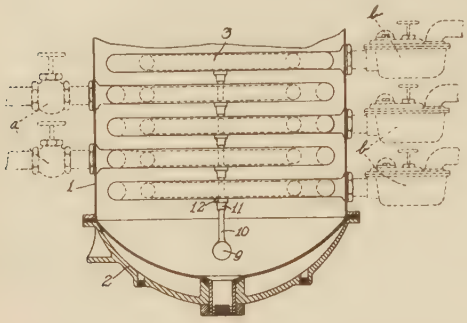


A garden implement comprising a head, a socket member associated with the head, said socket member having an axial internally threaded opening and a reduced bore at the inner end of the threaded opening, a handle, a tapered pin in one end of the handle arranged in axial alinement therewith, the larger end of said pin being disposed outwardly and adapted to fit the reduced bore in the socket member, and a split ring adapted to fit around the tapered pin and to be screwed into the threaded opening in the socket member, whereby the tapered pin will be firmly held in position in the reduced bore.

1,417,943. EVAPORATING PAN. CHARLES E. ROGERS, Detroit, Mich. Filed Jan. 25, 1919. Serial No. 273,023. 7 Claims. (Cl. 257—205.)

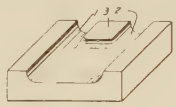
2. An evaporating pan for the condensing of milk or other fluids comprising the combination with the pan, of a series of independent steam heating coils in superimposed relation, each unit being independently con-

nected with the steam line and consisting of an inner and an outer coil, the two coils being connected together



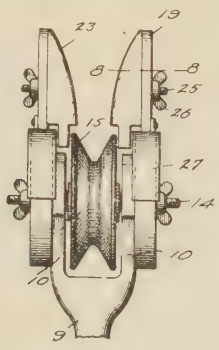
at adjacent ends to a common inlet and a common outlet, the space between the coil ends of one unit being on the opposite side of the pan from that of an adjacent unit.

1,417,944. DIES FOR MAKING RETURN BENDS. GILBERT E. RYDER, Leonia, N. J. Original application filed May 1, 1919, Serial No. 294,100. Divided and this application filed Apr. 6, 1920. Serial No. 371,655. 3 Claims. (Cl. 29—1.)



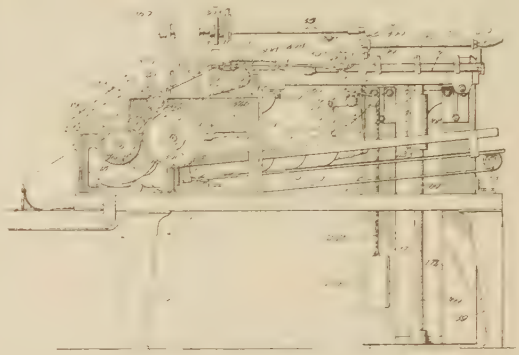
1. A die for making pipe bends and similar structures comprising a female member having parallel bores for holding two pipe lengths, said bores being joined by a space opening from the end of the die, said bores being spaced apart so their axes are separated by a distance materially greater than one half of the circumference of either bore, and a male member having two legs for entering said bores, said legs being connected by a web, the male member being shaped generally complementary to the co-operating portions of the female member, but being, when inserted in it, spaced everywhere from its walls.

1,417,945. TROLLEY-POLE HEAD. VINCENZO SACCONE, Johnstown, Pa. Filed Jan. 10, 1922. Serial No. 528,211. 3 Claims. (Cl. 191—73.)



1. A trolley head including a forked member equipped with an axle carrying a wheel, the ends of said axle being extended beyond the sides of said forked member, trolley wire guide housings engaged over the branches of said forked member, and a guide member mounted in each housing and pivoted on one end of said axle.

1,417,946. PROCESS OF PLACING WRAPPERS ON PACKAGES AND MECHANISM FOR CARRYING OUT SAID PROCESS. AXEL R. SCHOLIN, Chicago, Ill., assignor to Automatic Wrapping Machine Co., Chicago, Ill., a Corporation of Illinois. Filed Oct. 7, 1918. Serial No. 257,222. 46 Claims. (Cl. 216—59.)

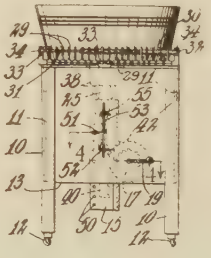


1. The method of applying wrappers to packages comprising the steps of moistening the wrappers, stretching said wrappers while in separate sheets by subjecting them to positive mechanical tension, and applying them to the packages subsequent to the stretching operation and while they are still moist.

1,417,947. ORE LEACHING. WALTER SCHOPPER, Frankfort-on-the-Main, Germany, assignor to Metallbank und Metallurgische Gesellschaft, Aktiengesellschaft, Frankfort-on-the-Main, Germany, a Corporation of Germany. Filed Sept. 24, 1921. Serial No. 503,025. 3 Claims. (Cl. 23—31.)

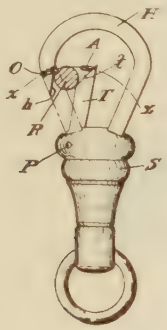
3. A process for continuously leaching ores and the like on the countercurrent principle in an apparatus having a series of leaching vessels, comprising moving the ore through the vessels in one direction and surging the extracting liquor from one vessel to the next in the opposite direction.

1,417,948. ADJUSTABLE WASHSTAND. MIKE SESKA, Niles, Ohio. Filed July 11, 1921. Serial No. 483,721. 6 Claims. (Cl. 45—9.)



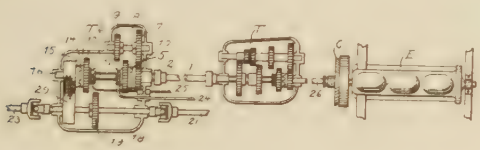
1. A device of the class described comprising a table element of adjustable area, a support therefor, and means including a single operating member for simultaneously moving said table element vertically and varying the area thereof.

1,417,949. SWIVEL. OTIS H. SLEEPER, Exeter, N. H. Filed Jan. 10, 1922. Serial No. 528,348. 2 Claims. (Cl. 24—240.)



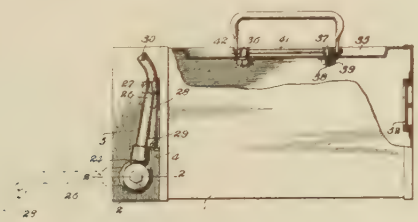
1. A watch swivel comprising a casing, a swivel ring at one end thereof, a hook at the other end of the casing and having an internally beveled end, a tongue pivoted in said casing at one end and having its opposite end outwardly beveled and disposed to cooperate with said hook end, a spring for automatically closing said tongue outwardly against said hook end, a pin on the bevel end of said tongue and having its end lying below the outer surface of the tongue, said hook end having a recess disposed to receive said pin upon the automatic closing of said tongue.

1,417,950. TRANSMISSION. JAMES SHEPARD SMALLEY, Muscatine, Iowa. Filed Apr. 27, 1921. Serial No. 464,772. 7 Claims. (Cl. 74—57.)



1. Change speed gearing comprising a main transmission affording a plurality of speed changes, and an auxiliary transmission to which the speed changes are imparted embodying means for changing the speed ratio of each of said speed changes and means for reversing the drive in all of said speed changes.

1,417,951. EMERGENCY GASOLINE CAN. EDWARD C. STAPLES and HARRY H. DEAN, Canton, Ohio. Filed Aug. 5, 1921. Serial No. 490,181. 1 Claim. (Cl. 221—26.)

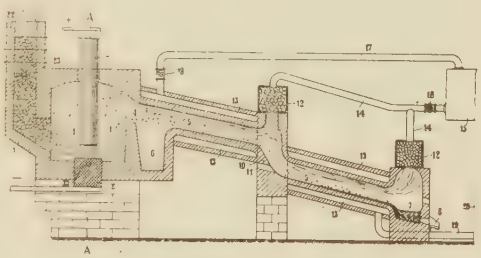


A fluid container comprising a rectangular body portion, a recess formed in said body portion, a discharge aperture located within said recess, a spider adjacent the inner side of the wall of said recess and aligned with said discharge aperture, a bolt projecting through said and held by said spider, an open ended thimble fitting against the outer side of the wall of said recess and encircling said discharge aperture, the said bolt extending through said thimble, a nut threaded on said bolt and tightened against the outer end of said thimble, a port formed in said thimble and communicating with the interior of said can through said discharge aperture, a conical member rotatably mounted upon said thimble, a pouring spout carried by said conical member and a passageway through said spout and conical member arranged to register with said port when the conical member is rotated.

1,417,952. PROCESS TO PRODUCE MIXTURES OF HYDROGEN AND NITROGEN. EMERICH SZARVASY, Budapest, Hungary. Filed Feb. 12, 1915. Serial No. 7,907. 1 Claim. (Cl. 204—31.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

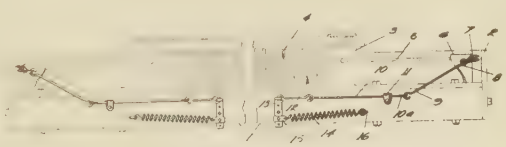
A process of producing a mixture of hydrogen and nitrogen, consisting in heating a mixture of nitrogen with methane in a decomposing chamber containing glowing carbon resulting from a previous period of decomposition, said mixture of nitrogen and methane being in proportions that a mixture fit for ammonia-synthesis, viz., corresponding, substantially, to the formula of ammonia, NH_3, leaves said decomposing chamber.

1,417,953. ELECTRIC FURNACE. FILIP THARALDSEN, Trondhjem, Norway. Filed Mar. 1, 1915. Serial No. 11,423. 5 Claims. (Cl. 204—64.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



1. Electric furnace for producing and condensing volatile metals particularly zinc, consisting of a furnace chamber, electrodes projecting into said chamber, a downwardly inclined condensing conduit communicating with said furnace chamber, a dust-collecting chamber between the furnace chamber and the condensing conduit, and a plurality of ventilating shafts arranged one after the other and extending at intervals through the entire length of said condensing conduit.

1,417,954. PICKER BUFFER FOR LOOMS. JULIUS T. THURSTON, Stockton, Calif., assignor of one-half to Frank B. Briare, Stockton, Calif. Filed Sept. 21, 1920. Serial No. 411,725. 1 Claim. (Cl. 139—48.)



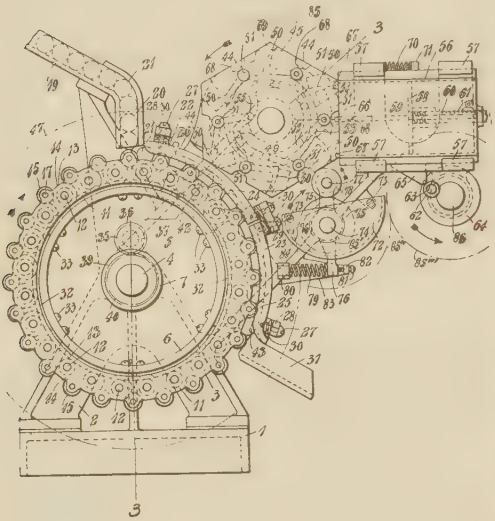
A picker-buffer for looms comprising a leather strap slidable on the picker guide-spindle and extending to one side thereof, a rigid link hooked to the outer end of the strap, a rod having hook-and-eye connection with the link, a leather guide for the rod adjacent its connection with the link and smaller than said hook-and-eye connec-

tion, whereby the movement of the rod and link in one direction is limited, and a spring structure connected to the rod at the end thereof opposite the guide and arranged to normally hold the connection of the rod and link against the guide.

1,417,955. REMOVAL OF PAINTS, VARNISHES, ETC. WILLIAM TIDDY, Norristown, Pa., assignor to Rainey-Wood Coke Company, New York, N. Y., a Corporation of Pennsylvania. Filed May 19, 1921. Serial No. 470,971. 6 Claims. (Cl. 87—5.)

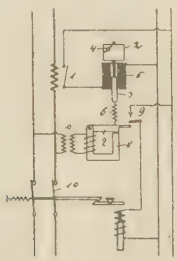
1. The method of removing paints, varnishes, etc., which comprises treating the same with heavy bases from coal tar, which bases are substantially free from pyridin.

1,417,956. WRAPPING OR LABELING MACHINE. PAUL VARGA, Cincinnati, Ohio, assignor of one-half to The Aromint Manufacturing Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Nov. 7, 1918. Serial No. 261,475. 26 Claims. (Cl. 216—59.)



1. In a wrapping or labeling machine, traveling wrapping means to rotatably support an article to be wrapped, movable means coacting with said wrapping means during travel thereof to actuate said wrapping means and cause rotation of said movable means moving in a direction different from that of the travel of said wrapping means, means for feeding said article to said wrapping means, and means for supplying a wrapper or label between said article and said wrapping means.

1,417,957. ELECTRIC SWITCH. MAX VOGELSANG, Frankfort-on-the-Main, Germany, assignor to the Firm Voigt & Haeffner Actien Gesellschaft, Frankfort-on-the-Main, Germany. Filed June 5, 1915. Serial No. 32,370. 1 Claim. (Cl. 175—294.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

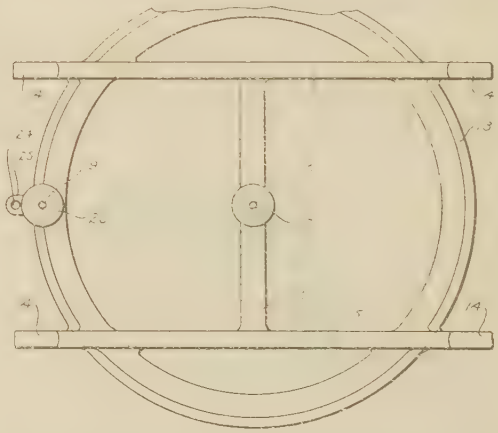


In a device of the class described, in combination, an electric switch, a time lag relay adapted to be influenced by a drop of voltage caused by overloading and to release said switch and means connected with said relay for releasing said switch also in case that no drop of voltage occurs, but the overload merely causes the time lag relay to run down.

1,417,958. TOY. ALMA VOGT, St. Louis, Mo. Filed Sept. 30, 1919. Serial No. 327,462. 2 Claims. (Cl. 46—40.)

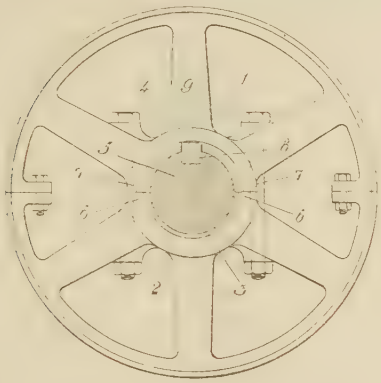
1. A toy of the character described, comprising a hollow body having two spaced finger holes through the back wall thereof and two spaced finger holes through the bottom wall thereof for receiving the fingers of the operator, all of said holes being separated by integral portions of the wall of the hollow body, said portions of the wall of the hollow body holding the fingers of the operator spaced and constituting bearings against which the fingers of the operator press when manipulating the toy.

1,417,959. APPARATUS FOR CASTING STEEL WHEELS. GEORGE WALTHER, Dayton, Ohio. Original application filed June 5, 1920, Serial No. 386,850. Divided and this application filed June 16, 1921. Serial No. 478,132. 2 Claims. (Cl. 22—37.)



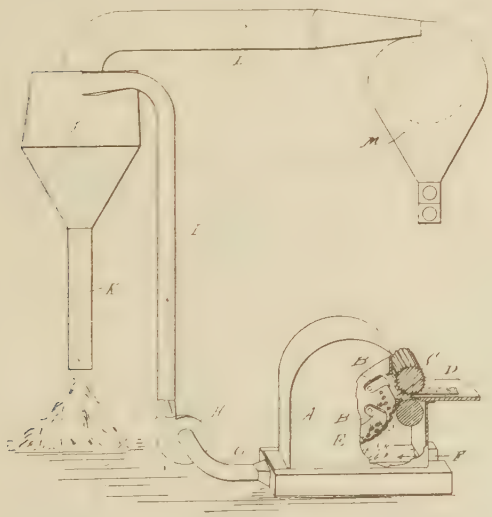
1. In a core carrying frame, a ring, means to support a central clamping means, a spoke and rim core clamping means located on the periphery of said ring, whereby the relationship of the hub core and the spoke and rim cores may be maintained.

1,417,960. DIVIDED PULLEY. NILS RUDOLF MARTIN WEIBULL, Bofors, Sweden. Filed Aug. 25, 1920. Serial No. 405,962. 4 Claims. (Cl. 64—18.)



2. A split pulley having the halves bored to different radii, and interchangeable bushings therefor comprising halves with external radii corresponding respectively with the internal radii of the pulley, and internal radii corresponding to that of the shaft to which the pulley is to be applied.

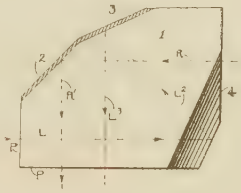
1,417,961. METHOD OF REDUCING FIBROUS SHEET MATERIAL. MILTON F. WILLIAMS, St. Louis, Mo., assignor to Williams Patent Crusher and Pulverizer Company, St. Louis, Mo., a Corporation of Missouri. Filed Oct. 7, 1920. Serial No. 415,324. 1 Claim. (Cl. 92—20.)



The herein described method of reducing fibrous sheet material, the same consisting in shredding it into slivers, then dividing said slivers lengthwise and crosswise, then subjecting the comminuted fiber to air currents, and then separating the dust and smallest pieces from the relatively longer, fluffy fibrous portions.

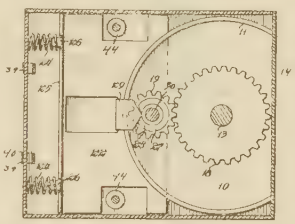
1,417,962. EYEPIECE PRISM. FREDERICK E. WRIGHT, Washington, D. C. Filed Sept. 30, 1919. Serial No. 327,572. 4 Claims. (Cl. 88—26.) (Filed under the act of Mar. 3, 1883, 22 Stat. L., 625.)

1. In a base line telemeter, a single prism for deviating the rays of light which come from opposite ends of the telescope tube, comprising the integral combination of a right angle reflecting prism with a penta-prism, a silvered surface on the penta-prism, a silvered surface on the right angle prism, a dividing line for the field of view formed by the intersection of said silvered surfaces, a roof edge having silvered side surfaces inserted in the penta-prism whereby rays of light from one end of the base line



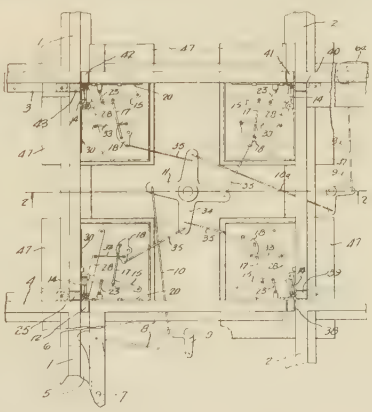
are reflected from the silvered surface of the roof edge and thence to the silvered surface of the penta-prism and then into the optical tube and rays of light from the other end of the base line are reflected from the silvered surface of the right angle prism portion into the optical tube, said emergent rays being on opposite sides of said dividing line.

1,417,963. LOCK. MARTIN ZAWISTOWSKI, Brooklyn, N. Y. Filed May 5, 1920. Serial No. 378,969. 7 Claims. (Cl. 292—199.)



1. A rotatable bolt for locks, comprising a disk forming the major segment of a circle and presenting a cylindrical flange along the curved portion of its periphery, a gear rigid with said disk on one face thereof and a boss rigid therewith on the opposite fame and having tumbler engaging portions at diametrically opposite points.

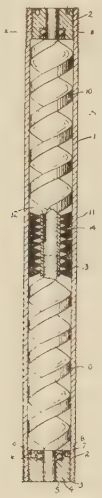
1,417,964. RAILWAY CROSSING. EZEKIEL S. ABBOTT, Detroit, Mich. Filed Oct. 28, 1921. Serial No. 511,006. 4 Claims. (Cl. 246—380.)



1. The combination with a railway crossing having spaces between the rails at the corners of the crossing to allow clearance for the car wheel flanges, of a series of filler blocks adapted to ride in the spaces of the rails

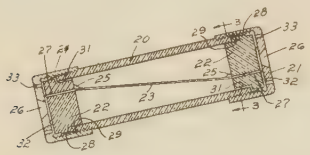
which extend in one direction and when in the raised position forming a continuous track, a second series of filler blocks adapted to ride in the spaces of the rails extending in the opposite direction and when in the raised position also forming a continuous track, a lever secured to each filler block and pivoted to the adjacent rail, a wedge block adapted to be moved beneath each lever to raise the corresponding filler block, a supporting block for each filler block adapted to be automatically moved to position beneath the filler block by the mechanism for moving the wedge blocks, and a trip mechanism for each pair of rails adapted to be operated by the car wheel flanges when approaching from either direction, the construction being such that operation of either trip mechanism raises the filler blocks to provide a continuous track for the approaching car and lowers the filler block of the track extending in the opposite direction to allow clearance for the car wheel flanges.

1,417,965. OIL-TREATING MIXER. MARK BELCHER, West Columbia, Tex., assignor of one-third to G. H. Davis, West Columbia, Tex. Filed Dec. 27, 1921. Serial No. 524,932. 4 Claims. (Cl. 259—10.)



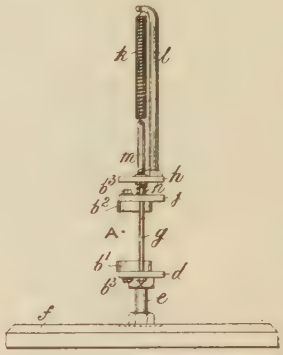
1. In a device of the character described, a length of pipe, a bearing member in each end thereof, a mixing member in said pipe, having its ends journalled in said bearing members, spirally arranged agitating blades on said mixing member, and a brush intermediate the ends thereof, said bearing members having constricted passages therethrough.

1,417,966. RENEWABLE CARTRIDGE FUSE. TONJES A. BOTH, Stratford, Conn., assignor to The Connecticut Electric Manufacturing Company, a Corporation of Connecticut. Filed July 18, 1918. Serial No. 245,550. 10 Claims. (Cl. 200—132.)



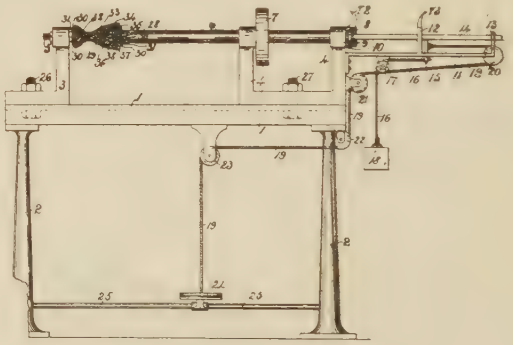
1. In a fuse of the character described an insulating tubular body, removable refractory heads closing the ends of the body and provided with slots and in their edges with ventilating channels, a fuse strip passing through the slots and having its ends bent over the outer sides of the heads, and ferrules having holes in their ends and threaded engagement with the body.

1,417,967. DIE FOR FORMING HANDLES FOR CUPS, ETC. ELIJAH BROOKES, Stoke-on-Trent, England. Filed June 15, 1916. Serial No. 103,860. 3 Claims. (Cl. 25—1.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



1. A die press for use in the manufacture or formation of handles for articles of pottery, consisting of a frame, a die formed in two parts, the upper part being slidable on guide rods and spring controlled, handle recesses formed in the die and extending to the front face thereof, said die being curved or shaped to enable the ends of the handle to be cut at the right angle or shape, and a spring controlled pin for dislodging or raising the finished handle, substantially as described.

1,417,968. APPARATUS FOR THE MANUFACTURE OF POTTERY. ELIJAH BROOKES, Stoke-on-Trent, England. Filed Dec. 23, 1916. Serial No. 138,669. 4 Claims. (Cl. 25—24.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)

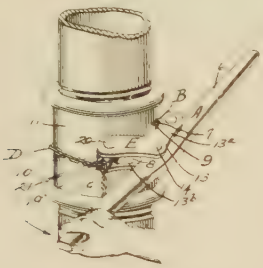


1. In apparatus for the manufacture of pottery, two supporting heads, two opposed chucks revoluble in the said heads, means for gripping the article between the said chucks, and means for shaping the article while being revolved with the chucks.

1,417,969. REVERSIBLE WRENCH. WILLIAM H. BURSTALL and JAMES S. TURNER, Oxnard, Calif., assignors of two-thirds to said Burstall and one-third to said Turner. Filed Feb. 7, 1921. Serial No. 443,244. 6 Claims. (Cl. 81—69.)

3. A device of the character described, comprising work-engaging elements adapted to be respectively applied to the work for the turning or operating of the same in different directions, an element adapted to be independently applied to the work to maintain engagement of said

first named elements with the work, and a handle member for said elements; said handle member being provided with a rocking element having divergent portions and said work-engaging elements comprising divergent portions,

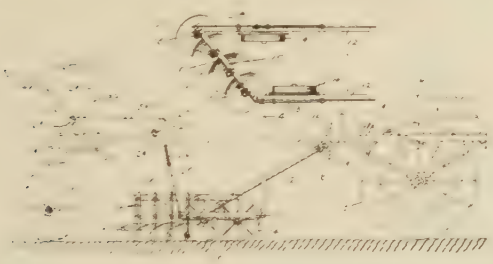


said heads and said divergent portions of said rocking element projecting radially from the rocking center of said rocking element; said rocking element comprising spaced frame members adapted to accommodate between them said divergent heads.

1,417,970. VULCANIZATION OF RUBBER EMPLOYING AMINES AND OPEN-CHAIN ALDEHYDES AND SIMILAR SUBSTANCES AND PRODUCTS OBTAINED THEREBY. SIDNEY M. CADWELL, New York, N. Y., assignor to The Naugatuck Chemical Company, a Corporation of Connecticut. Continuation of application Serial No. 376,659, filed Apr. 26, 1920. This application filed May 28, 1921. Serial No. 473,345. 32 Claims. (Cl. 18—53.)

1. A process for treating rubber which comprises combining rubber with a vulcanizing agent and the reaction product of an aldehyde comprising an open chain having a plurality of carbon atoms, and an amine, and vulcanizing the rubber.

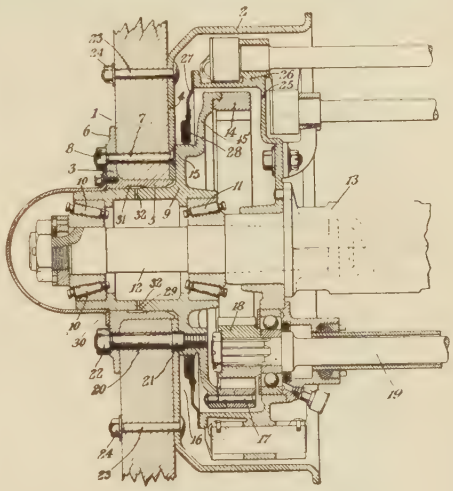
1,417,971. ROTARY-DISK CULTIVATOR. HARDY WEBSTER CAMPBELL, Oakland, Calif. Filed Oct. 15, 1918. Serial No. 258,234. 5 Claims. (Cl. 97—37.)



2. A rotary disk cultivator comprising a frame, a series of disks mounted therein, each disk being mounted for adjustment on an axis transverse to the disk, said disks having convex surfaces for contact with the soil in the rear of their cutting edges, and said disks being mounted obliquely in said frame to be revolved by such contact.

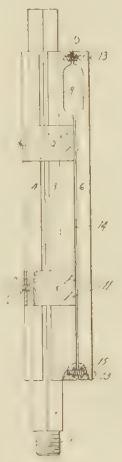
1,417,972. WHEEL AND AXLE CONSTRUCTION. GUSTAV W. CARLSON, Cleveland, Ohio, assignor to The Torbensen Axle Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 22, 1921. Serial No. 463,473. 9 Claims. (Cl. 74—7.)

3. In apparatus of the character described, the combination of a main hub, a gear for driving same, a wheel proper removably mounted upon said main hub and having a plate secured thereto at the inner side of the spokes, bolts secured to the hub and having enlarged portions near their said secured ends partly countersunk in their securing member and fitting openings in said wheel plate to transmit driving torque to said plate, and having reduced extensions extending with a sliding fit through



openings in the wheel spokes whereby the wheel proper may be more readily pulled from said bolts, and nuts securing said wheel upon said bolts.

1,417,973. SAW GUIDE. GEORGE W. CARY, Greenfield, Mass. Filed Mar. 14, 1921. Serial No. 452,150. 2 Claims. (Cl. 143—160.)

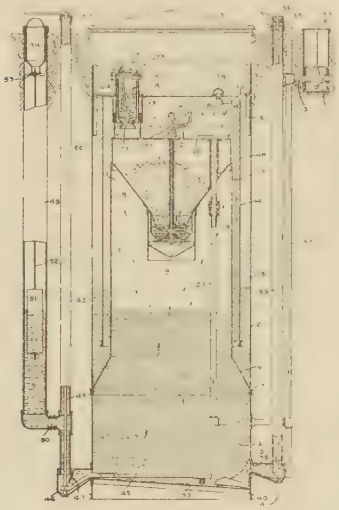


1. The combination, in a saw guide, with a post which is angular in cross section, of bars grooved to receive opposite angular portions of said post, a U-shaped clamp connecting said bars and rigidly fastened to one of the same, and a screw tapped into the heel of said clamp and bearing against the contiguous side of the other bar, one of said bars being provided with a saw-forming-slot member.

1,417,974. GAS GENERATOR. CLAUD J. CLEFTON and GUY J. CLEFTON, Owatonna, Minn. Filed June 11, 1917. Serial No. 174,050. 5 Claims. (Cl. 48—57.)

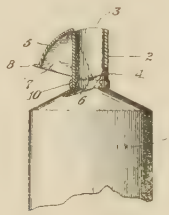
2. An acetylene gas generator having means for emptying the water from the same without admission of air to the generator comprising a generating tank, a sleeve, a bell over the sleeve, a fluid seal at the bottom of the bell and sleeve, a hopper closing the end of the sleeve, a port or second hopper having walls to shut out air from the space between the bell and sleeve tops, means for depositing carbide from the first hopper by raising and lowering

the bell to generate gas and a pressure in the tank whereby entrance of air into the tank when the water is removed is prevented, and a discharge pipe leading from near the bottom of the tank through which the water and



sludge may be removed from the generating tank and whereby a water seal is formed between the pipe and tank to prevent air entering the tank from said pipe at the end of the sludge removing operation.

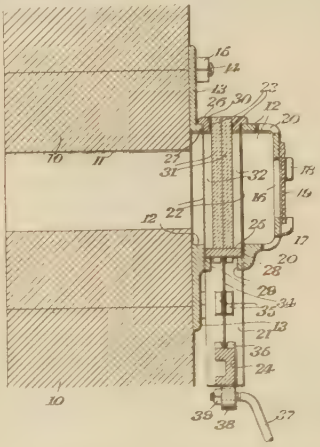
1,417,975. RECEPTACLE CLOSURE. FREDERICK D. CRANE, Montclair, N. J., assignor of one-half to Nathaniel L. Foster, Montclair, N. J. Filed Apr. 9, 1921. Serial No. 459,951. 3 Claims. (Cl. 221—60.)



2. The combination with a receptacle having an outlet opening, the edge of which is curved, of a closure member comprising a curved plate adapted to fit over the outlet opening, the curvature of the plate being on a smaller radius than the curvature of the edge of the opening, and means for pivotally mounting said closure member eccentrically of said curved edge.

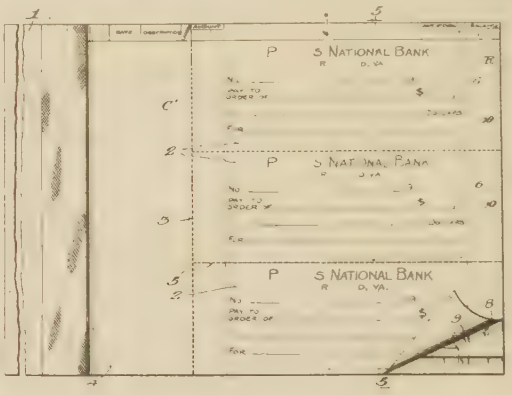
1,417,976. OBSERVATION WINDOW FOR FURNACES. MALCOLM CURRY, Scarsdale, N. Y., and STARR H. BARNUM, Hamden, Conn. Filed Oct. 27, 1921. Serial No. 510,908. 10 Claims. (Cl. 126—200.)

1. The combination with a furnace having a peep-opening, of means for supporting a panel of transparent glare-eliminating material outside of the furnace in line with said opening, a support slidable transversely of the line of vision through said transparent panel and opening, and panels of heat-resisting material carried by said slidable support and movable therewith to alternately close the peep-opening, one of said heat-resisting panels being



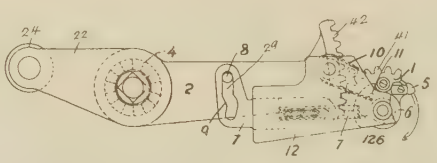
transparent and the other being formed of material which is a non-conductor of heat.

1,417,977. CHECK OR ACCOUNT BOOK. JAMES L. DAVIS, Richmond, Va. Filed June 1, 1921. Serial No. 474,148. 5 Claims. (Cl. 282—23.)



1. An accounting book of the check book type, comprising alternate check and record sheets, the record sheets being suitably ruled to provide a duplicate of the check data by carbon impression, the record sheets being arranged so that upper margins of certain record sheets are exposed above the upper edge of a preceding sheet, and lower margins of certain sheets are exposed below the lower edge of a preceding sheet.

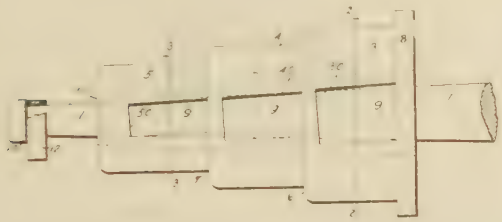
1,417,978. NEEDLE-GUIDE-CONTROLLING MEANS FOR SEWING MACHINES. MARK THOMAS DENNE, Rushden, England. Original application filed Sept. 22, 1914, Serial No. 863,025. Divided and this application filed Sept. 30, 1918. Serial No. 256,213. 1 Claim. (Cl. 112—227.)



In a sewing machine, the combination with an oscillatory needle, segment and a needle carried thereby, of an

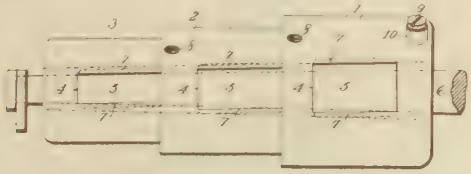
oscillatory needle-guide, a spring acting normally to impel the guide forwardly, a needle-operating lever for actuating the needle segment, and means operated by said needle-operating lever for locking the needle-guide temporarily in position when it has completed its forward movement while the needle is engaged in the work and during the first part of the rearward or upward movement of the needle, said means operating to unlock the needle-guide thereby to permit it to move backwardly with the needle segment during the final backward movement of the latter.

1,417,979. MULTIPLE-TUBE EXPANDER. THOMAS J. DIXON, Madison, Wis., assignor to Lovejoy Tool Works, Chicago, Ill., a Corporation of Illinois. Filed Dec. 1, 1920. Serial No. 427,568. 2 Claims. (Cl. 153—82.)



1. In a tube expander, the combination with an expanding unit including a set of radially shiftable expanding rollers, and a mandrel that engages the said set of rollers and holds them to their operative position, the said mandrel having an annular enlargement or head at the forward end; of a ring of flexible metal adapted for being slipped onto the mandrel over the head, and for being compressed around the mandrel to constitute a retainer to prevent the separation of the mandrel and the expanding unit.

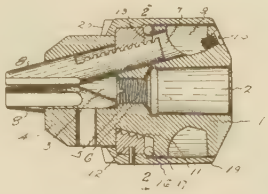
1,417,980. MULTIPLE EXPANDER. THOMAS J. DIXON, Madison, Wis., assignor to Lovejoy Tool Works, Chicago, Ill., a Corporation of Illinois. Filed Mar. 23, 1921. Serial No. 454,715. 1 Claim. (Cl. 153—82.)



A tube expander comprising a stepped shell, a set of rollers for each step of the shell, said shell having roller receiving pockets, means for retaining the rollers in the pockets, a mandrel for engaging all of the rollers, said shell having threaded openings adjacent the rear extremity of the several sets of rollers and a stop screw adapted to be threaded into any one of said openings.

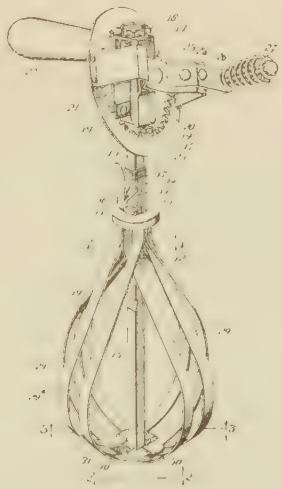
1,417,981. CHUCK. GUSTAF A. ENGLUND, Hartford, Conn., assignor to The Jacobs Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed May 27, 1921. Serial No. 473,178. 1 Claim. (Cl. 279—62.)

A chuck having a body with inclined jaw openings and an annular recess communicating with the jaw openings, jaws with teeth on their backs loosely located in the jaw openings, a nut located in said annular recess and having threaded engagement with the teeth on the jaws, balls located between the nut and body, the rear wall of said nut having its outer edge cut away to form a ball-race, that encircles a portion of the inner surfaces of the balls only and the rear wall of said annular recess in the body having near its outer edge a groove that forms a ball-race which encircles a portion of the inner and outer surfaces of the balls with a small portion of the edge of the body from said groove outward cut away at one



locality, whereby the balls are dropped into said races and are retained from outward displacement by the outer section of the wall of the groove in the body, and a sleeve surrounding the body over the ball race-ways and fastened to the nut.

1,417,982. BEATER. GEORGE J. FITZPATRICK, Chicago, Ill. Filed May 26, 1921. Serial No. 472,716. 9 Claims. (Cl. 259—134.)

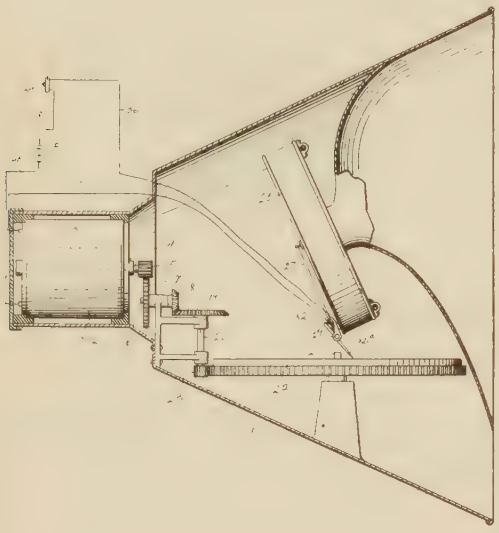


1. In a device of the character described, a shaft, means whereby the shaft may be rotated, blade members arranged in pairs and spaced relation, said blade members being composed of strips of flexible sheet metal bent into loop form, with the intermediate portions of said blade members immovably secured adjacent the end of the shaft, means, slidable on said shaft, to which the ends of said blade members are secured, and means whereby the second mentioned means with the blade members may be locked in adjusted position lengthwise of said shaft.

1,417,983. PHONOGRAPHIC WARNING DEVICE. BENJAMIN F. FREEBLE, Brownsville, Pa., assignor of one-half to John Matta, Brownsville, Pa. Filed Nov. 25, 1919. Serial No. 340,516. 10 Claims. (Cl. 177—337.)

1. An audible warning signal mechanism for motor cars including a phonographic record having thereon a plurality of circular phonautographic grooves, each formed to reproduce words of warning, an electric motor for driving said record, a sound box having a diaphragm, a plurality of styluses associated with the sound box and diaphragm and each adapted to operatively engage one of said grooves, and manually controlled means for closing a circuit through said motor and simultaneously rendering any selected one of the styluses operative to trans-

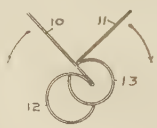
mit sound vibrations or disconnecting the motor from a source of energy and simultaneously rendering the previously operative stylus inoperative to transmit sound vibrations.



2. An audible warning signal mechanism for motor cars including a phonograph record having thereon a circular phonautographic groove formed to reproduce words of warning, an electric motor for driving the record, a sound box having a diaphragm, a stylus carried by the sound box and engaging said groove and normally out of operative engagement with the diaphragm, and manually controlled means for causing the stylus to shift into sound reproducing engagement with the diaphragm and simultaneously connect the motor with a source of energy or releasing the stylus from its operative engagement with the diaphragm of the sound box and simultaneously disconnecting the motor from its source of energy.

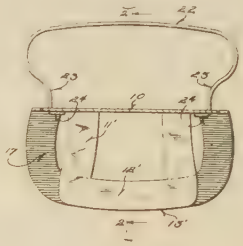
3. An audible signal mechanism including a single phonograph record having thereon a plurality of circular phonautographic grooves, each formed to reproduce words of warning, an electric motor for driving said record, a single sound box having a diaphragm, a plurality of styluses carried by the sound box and engaging the several grooves but normally out of engagement with the diaphragm, manually operable means associated with each stylus for causing the corresponding stylus to shift into sound reproducing engagement with the diaphragm and simultaneously connect the motor with a source of energy or cause the release of the corresponding stylus and the simultaneous disconnection of the motor from the source of energy.

1,417,984. COMBINED JOINT AND HINGE. SHERMAN T. FRENCH, Indianapolis, Ind., assignor of one-half to Marshal D. Wade, Indianapolis, Ind. Filed Mar. 7, 1921. Serial No. 450,448. 1 Claim. (Cl. 16—128.)



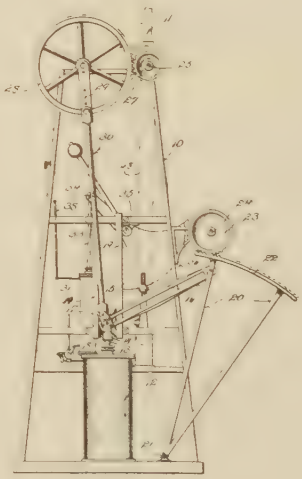
A combined joint and hinge for connecting the meeting edges of sheets of metal consisting in bending the metal along one edge of one sheet back upon the sheet to form an open cylindrical roll, a hook formed along the edge of the metal where the reverse bending occurs, a roll formed along the edge of the adjacent sheet in which the bending operation is reversed from that in the preceding roll, and a hook formed along the free end of the last roll for enforcing longitudinal movement in introducing one roll into the other, the said hooks preventing the rolls from being disconnected except by a corresponding longitudinal movement.

1,417,985. SHORTENING MIXER. MARY E. GEIGER, Waukesha, Wis. Filed Mar. 21, 1922. Serial No. 545,409. 2 Claims. (Cl. 259—144.)



1. In a shortening mixer, the combination of a plate, a pair of metallic straps on each side thereof and integral therewith, a pair of wings, each of said wings being integral with a pair of said straps, a second pair of wings, a second pair of straps on each side and integral with said plate, each of said second pairs of straps being integral with one of said second mentioned wings.

1,417,986. AUTOMATIC STROKE-REGULATING DEVICE. FRANKLIN B. GIESLER, Milwaukee, Wis. Filed June 7, 1919. Serial No. 302,466. 5 Claims. (Cl. 74—14.)

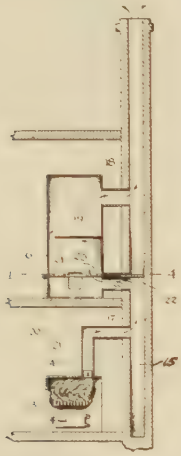


1. The combination with a driven power member and a reciprocating member in drive connection therewith of a centrifugal governor driven with said members and fluid pressure means operable by said governor for varying the stroke of the reciprocating member.

1,417,987. HEATING DEVICE. DAN GRIFFITH, Tacoma, Wash. Filed Apr. 19, 1920. Serial No. 375,082. 1 Claim. (Cl. 257—165.)

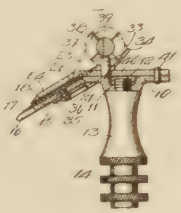
A heater as herein set forth comprising a casing including front and rear walls, said rear wall provided

with openings and upper and lower pipes adapted for connection with a vertical flue, an intermediate baffle plate within the casing extending from the rear wall to near the front wall, guides arranged within the lower



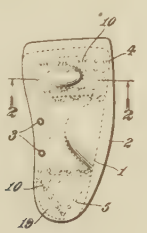
pipe within its upper wall, a damper plate of somewhat greater length than the width of the vertical flue slidable in said guides, and a jointed handle attached to the front of said damper plate and extending through the front wall of the casing.

1,417,988. SAFETY RAZOR. JOHN S. GULLBORG, Chicago, Ill., assignor, by mesne assignments, to The Rotary King Safety Razor Company, New York, N. Y., a Corporation of Delaware. Filed Mar. 6, 1920. Serial No. 363,650. 7 Claims. (Cl. 30—12.)



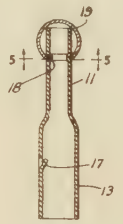
1. A razor comprising a frame, a blade having a notch in the intermediate portion of the rear edge thereof, said blade being slidable transversely on said frame, a roller mounted above and to the rear of the blade, an oscillating lever below the roller and to the rear of the blade and having its free end engaged with said notch, and means on said lever engageable with the roller for receiving motion from said roller.

1,417,989. FOOT SUPPORT. LUDWIG GUTMANN, St. Louis, Mo. Filed June 11, 1918. Serial No. 239,469. 13 Claims. (Cl. 36—71.)



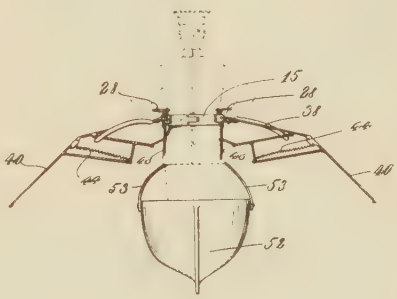
1. A foot support, comprising, a perforated base, and a perforable pad adapted to receive fastening means engaging the perforations on said base.

1,417,990. HANDLE EXTENSION. BERT G. HACKETT, Providence, R. I., assignor to Hackett Products Co., Providence, R. I., a Corporation of Rhode Island. Filed Sept. 3, 1921. Serial No. 498,254. 2 Claims. (Cl. 292—348.)



1. A handle extension comprising a shank having an engaging portion at its upper end and a socket at its opposite end shaped to receive the end of the handle it is designed to lengthen, and an upwardly and inwardly extending integral spur adapted to yield to permit the positioning of the socket onto the handle but adapted to bite into the stock of the handle to permanently secure the extension member thereto.

1,417,991. AERONAUT'S SAFETY ATTACHMENT. WASYL HANIUK, Perth Amboy, N. J., assignor of forty one-hundredths to Fedio Andrusyszyn, Perth Amboy, N. J. Filed July 6, 1917. Serial No. 179,026. 2 Claims. (Cl. 244—21.)



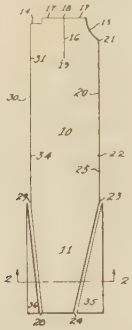
1. In a device of the class described, the combination with a band adapted to encircle the waist of an operator, a pair of lateral wings pivoted on said band and each comprising, a plurality of frame elements pivotally joined together and a textile fabric covering the frame elements, means for holding said elements in a folded position, means for distending said wings, a boat-like element engaged with said band, comprising a plurality of foldably engaged bent rods, means for permitting said boat to be extended above the head of the operator or be positioned therebelow, and means permitting holding the frame of said boat in a folded position, said boat-like element adapted to be operated by the current of air encountered for opening said frame work.

2. In a device of the class described, the combination with a hinged ring adapted to encircle the waist of an operator, a pair of wings pivoted laterally to said ring, means for holding said wings in any desired inclination relative to said ring, a boat-like frame carried by said ring, and a bent link permitting said boat-frame to be swung above or below the operator, and means for holding the boat-frame in folded condition when required.

1,417,992. UNDERGARMENT. STANLEY A. HANSON, Barnesville, Ga. Filed Apr. 7, 1920. Serial No. 371,896. 6 Claims. (Cl. 2—144.)

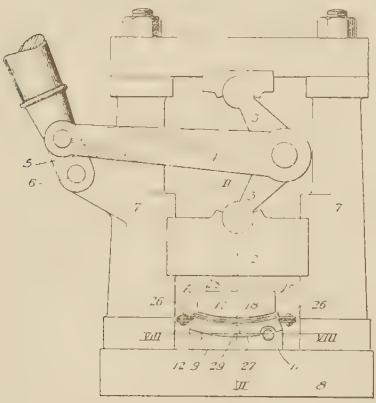
1. The method of constructing a union undergarment comprising taking a length of flattened tubular fabric,

cutting unequal triangular portions from opposite sides thereof leaving a body cloth having leg portions, reflattening said tubing along creases spaced 90° from the



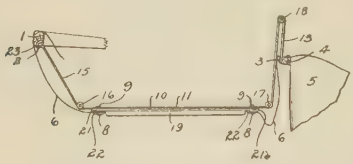
original ones, sewing together the adjacent edges of said leg portions, and inserting said triangular portions as flap inserts in the rear of the body cloth.

1,417,993. PRESSING MECHANISM FOR SIGN UNITS. WALTER F. HEEREN, Pittsburgh, Pa. Filed July 16, 1921. Serial No. 485,328. 7 Claims. (Cl. 18—17.)



1. A pressing machine having a water cooled anvil, a relatively thin separate casing mounted on the upper surface of said anvil, and including spaced apart upper and lower metal plates, a relatively thin electrical heating means interposed between the plates, the lower plate being in intimate contact with the top of the anvil and the upper plate providing a pressing surface, and a pressing block having means for exerting pressure thereon.

1,417,994. FRAME FOR MOTOR-CAR CURTAINS. WILLIAM HERTEL, St. Louis, Mo. Filed Dec. 13, 1920. Serial No. 430,234. 6 Claims. (Cl. 296—145.)

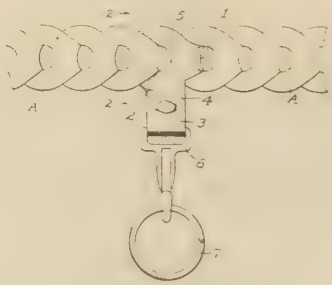


3. A top for motor cars including supporting frame members, a unitary supplementary frame member attached to the supporting frame members, an inherently resilient retaining member positively engaged by the supplementary frame member for receiving a glass pane, and means extending through the fabric of the top and through the frames for holding said members in assembly.

1,417,995. SCREW-DRIVER ATTACHMENT. ANDREW HILTON, Byesville, Ohio. Filed June 18, 1921. Serial No. 478,707. 6 Claims. (Cl. 145—52.)

6. In a screw-holding attachment for screw-drivers, a support comprising a longitudinal member having a loop at one end to surround the shank of the screw-driver and to be freely movable thereon, a clamp secured to the support and surrounding the shank of the screw-driver, manually operated means for adjusting the tension of the clamp on the shank, an offset in the support, a disk eccentrically journaled on the offset portion of the support, a spring-clamp surrounding the disk and engaging the support, and laterally extending spring fingers adapted to hold a screw in position to be engaged by the bit of the screw-driver.

1,417,996. COMBINED BELT LINK AND KEY-RING HOLDER. JOHN JACKSON, St. Louis, Mo. Filed Jan. 3, 1921, Serial No. 434,690. Renewed Oct. 24, 1921. Serial No. 510,104. 3 Claims. (Cl. 24—3.)



1. A combined belt link and key ring holder comprising a body having rounded ends and an orifice adjacent each end, said member bent upon itself so that said orifices are superposed and engaged by an adjacent link and an extension located adjacent one end and adapted to be bent and secured upon itself to hold a fastener member.

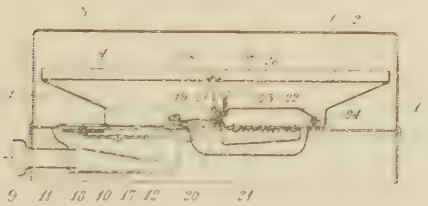
1,417,997. SUSPENSION THRUST-RESISTING ATTACHMENT FOR PRESSES. WILLIAM A. JENNINGS, Raytown, Mo. Filed Mar. 22, 1921. Serial No. 454,523. 8 Claims. (Cl. 29—85.)

1. In a device of the character described, a tubular member adapted to receive a shaft and provided with a

closure for engagement by the enclosed end of the shaft, and means for supporting said member so that it shall

be subjected to tensile strain by pressure imposed by said shaft on said closure.

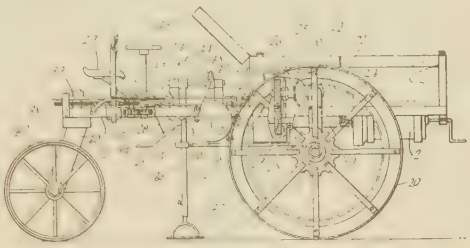
1,417,998. GAS METER. GEORG KARL VILHELM JOHANSON, Stockholm, Sweden. Filed Sept. 2, 1919. Serial No. 321,100. 3 Claims. (Cl. 73—1.)



1. In a gas meter, the combination of two measuring chambers, a movable diaphragm separating said chambers, an inlet to said chamber, an outlet from said chamber, valves between each of said chambers and said inlet and said outlet, a spring mechanism between said diaphragm and said valves comprising a lever and means whereby said lever is connected with the diaphragm, a second lever, means whereby said lever is connected with the valves, means for locking said second lever against movement during the movement of the diaphragm until it reaches its limit positions of movement, a tension helical spring stretched between the swinging ends of said levers, and means for limiting the turning of said levers in such manner that they are only capable of turning through small angles to either side of the connecting line between the fulcra of said levers.

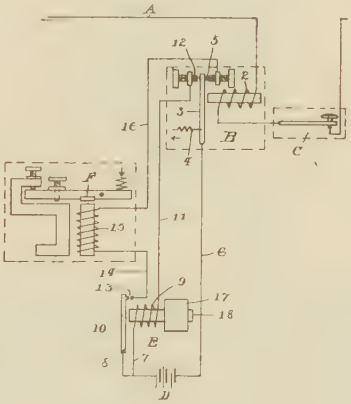
1,417,999. AGRICULTURAL MACHINE. WILLIAM H. KEMPER, Montgomery, Ala. Filed Dec. 18, 1920. Serial No. 431,796. 3 Claims. (Cl. 180—18.)

1. In a machine of the class described the combination with a frame, front drive wheels mounted to swing relative thereto, means under the control of the driver for separately swinging said wheels, a motor driven shaft, a steering wheel, separate means controlled thereby for coupling either or both of the front drive wheels to the shaft, and means operated by said steering wheel for steering the machine, said means including rear supporting wheels, and motion transmitting means connecting



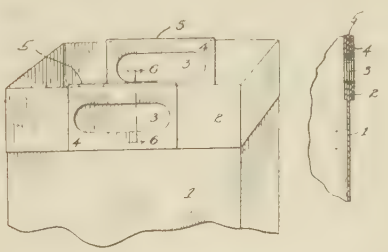
the rear wheels to the steering wheel for swinging movement.

1,418,000. TELEGRAPH APPARATUS. EDWARD LOUIS KLINGEL, St. Paul, Minn. Filed Feb. 6, 1918. Serial No. 215,689. 3 Claims. (Cl. 178—2.)



1. In signaling apparatus, a line circuit containing a line relay and key, said line having a contact arranged to be opened when impulses are transmitted and closed during the period when impulses are not being transmitted, and a local circuit included in and normally opened by said line relay when the line circuit is closed and closed when the line relay is in open position and containing a sounder and a relay having a magnet core, a reluctance coil encircling said core and an armature acting under the influence of the magnetic lag in said core for keeping the local circuit closed only during the period when a series of impulses is being sent over the line.

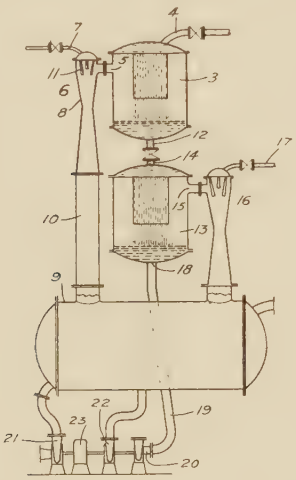
1,418,001. SHOPPER'S BAG. WILLIAM H. KNIEP, St. Louis, Mo., assignor to Graham Paper Company, St. Louis, Mo., a Corporation of Missouri. Filed June 14, 1920. Serial No. 388,737. 1 Claim. (Cl. 229—54.)



A bag comprising a body portion having its material at its top bent back upon itself for forming a reinforcing

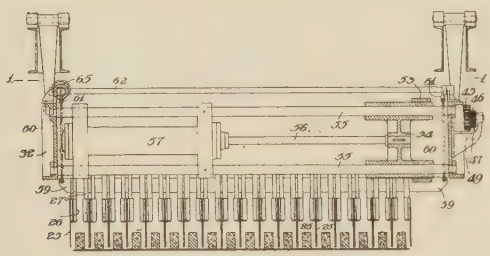
element extending continuously around the mouth of the bag, said reinforcing element being integral with the body portion, and inverted U-shaped reinforcing members straddling the upper edge of the bag and the continuous reinforcing element, said members, element, and body portion being glued together, and provided with hand openings, said members being oppositely arranged.

1,418,002. REFRIGERATING MACHINE. GOTTDANK L. E. KOTHNY, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 30, 1915. Serial No. 17,995. 6 Claims. (Cl. 127—24.)



1. In combination in a refrigerating machine, a plurality of evaporating chambers through which refrigerating liquid is successively passed in a continuously moving stream, a fluid ejecting apparatus communicating with each chamber for effecting a partial evaporation of the liquid passing therethrough, and a common condenser into which said fluid ejecting apparatus discharges.

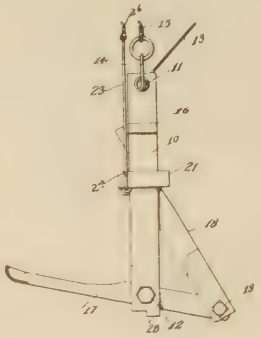
1,418,003. METHOD AND MEANS FOR BRICK HACKING. JAMES B. LADD, Ardmore, Pa. Filed Oct. 30, 1919. Serial No. 334,409. 24 Claims. (Cl. 214—6.)



1. The method of hacking bricks which consists in first clamping the bricks, which have been assembled in long parallel abutted rows with relatively wide spaces between the rows, and moving the rows closer together and depositing said bricks on cars in hacked formation.

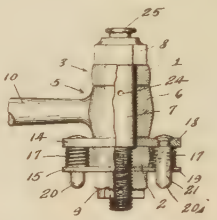
1,418,004. BUCKET-LOADING HOOK. JOHN W. LARSON, Escanaba, Mich. Filed Mar. 9, 1921. Serial No. 450,887. 7 Claims. (Cl. 294—83.)

1. A device of the character described comprising a body, a hook member pivoted intermediate its ends to the lower end of the body, a shank pivoted to the rear end of said hook member and extending upward and across the body, a stop mounted on the body, the shank being formed with a shoulder adapted to engage said stop to prevent the downward movement of the free end of the hook member, and longitudinally shiftable means on the body adapted to



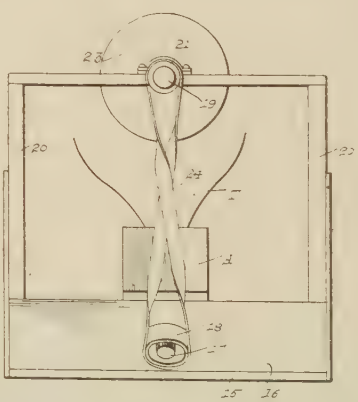
engage the shank and shift it out of engagement with the stop to thereby permit the hook member to turn toward a position of alignment with the body.

1,418,005. ANTIRATTLING JOINT FOR STEERING GEARS. NATHEN A. LOCKE, Fulton, N. Y. Filed June 10, 1920. Serial No. 387,999. 5 Claims. (Cl. 74—17.)



1. An anti-rattling joint comprising a member having arms formed with alined bearings, a member having a hub located between said arms, a pin extending through the bearings and the hub, a take-up member encircling the pin between one end of the hub and the opposing face of one of said arms, an abutment member, encircling the pin on the opposite side of said arm, said members having laterally extending portions, coiled compression springs interposed between the laterally extending portions of said members and located on opposite sides of said arm, and a nut threading on the pin, substantially as and for the purpose specified.

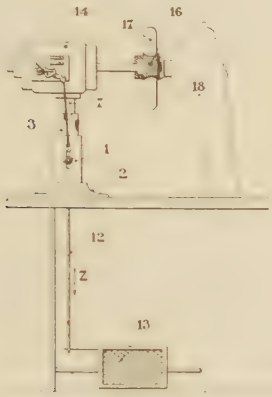
1,418,006. AMALGAMATOR. HARRY LOEVEN, Douglas, Ariz. Filed Aug. 4, 1920. Serial No. 401,096. 2 Claims. (Cl. 83—67.)



1. An amalgamator comprising a vessel, a plurality of partitions arranged in spaced relation within the vessel

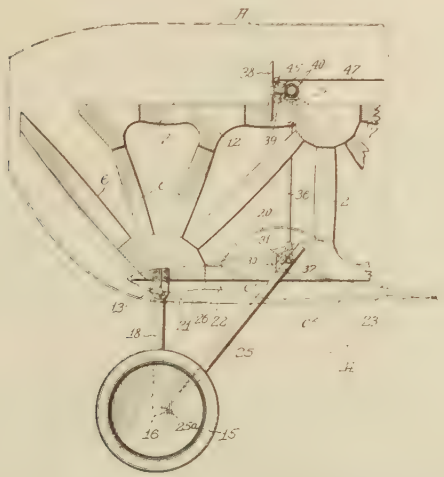
and each consisting of pairs of overlapping sections, the sections of each pair being arranged in spaced relation whereby to define a plurality of openings, an operating shaft extending through said vessel, and means rigidly connecting the shaft to said vessel, said vessel being provided with a longitudinal slot, the walls of which are inclined with respect to the surface of the vessel.

1,418,007. MOTIVE-POWER APPLIANCE FOR SEWING MACHINES AND THE LIKE. DAVID LUSTIG, Paris, France. Filed June 29, 1920. Serial No. 392,866. 5 Claims. (Cl. 172—179.)



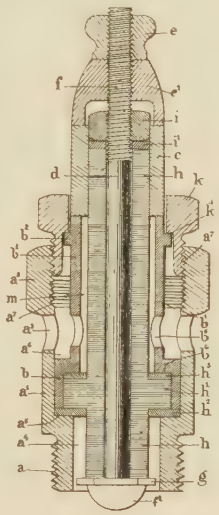
1. A motor driving device applicable to sewing machines and the like, comprising a motor, a roller for driving purposes on the motor spindle, a support for the motor consisting of two members, the one carrying the motor being capable of sliding movement with respect to the other, guiding means adapted to produce a lateral angular movement of the motor axis during such sliding movement, a motor-controlling switch with means for opening and closing the same automatically in consequence of the movements in one direction and the other direction respectively of the motor, and mechanism for imparting the movements in one direction and the other to the member carrying the motor, whereby said motor is started and moved into the driving position simultaneously, or is stopped and moved out of the driving position, as required.

1,418,008. AIRCRAFT STRUCTURE. JAMES V. MARTIN, Elyria, Ohio. Filed Nov. 14, 1918. Serial No. 262,477. 42 Claims. (Cl. 244—2.)



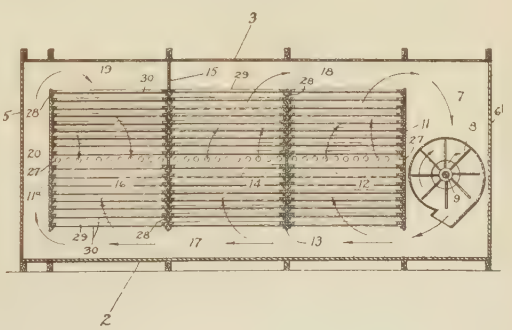
42. In combination with an aeroplane, retractable alighting means, operating means therefor, and means for transmitting motion from said operating means to operate said alighting means, said motion transmitting means being adapted to hold said alighting means in any position to which it is adjusted.

1,418,009. SPARKING PLUG FOR INTERNAL-COMBUSTION ENGINES. JOSÉ MARTINEZ, Paris, France. Filed Mar. 23, 1921. Serial No. 454,841. 2 Claims. (Cl. 123—169.)



1. A spark plug, comprising a hollow metal body having an internal shoulder in its lower portion, a packing ring resting on said shoulder, a central electrode, an insulating fitting surrounding said electrode and having an enlarged portion bearing on said packing ring, a second packing ring upon the upper face of said enlarged portion, a metallic ring having an upper portion loosely surrounding the upper portion of said fitting and bearing at its lower end upon said second packing ring, said metallic ring having a lower portion of increased diameter closely fitted within the metal body and closely surrounding the enlarged portion of said fitting and bearing at its lower end upon said first-mentioned packing ring, and a nut screwed into the upper end of the metal body and bearing upon the metal ring whereby to clamp the enlarged portion of the insulating fitting between the lower end of the upper portion of the metal ring and the internal shoulder of the metal body.

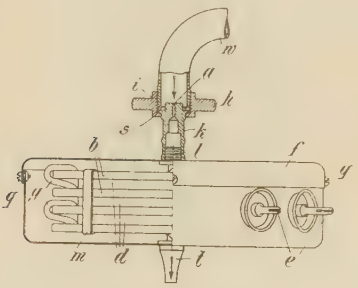
1,418,010. DRIER. FRANK A. MARTOCCIO, Minneapolis, Minn. Filed Aug. 2, 1920. Serial No. 400,727. 9 Claims. (Cl. 34—39.)



1. A drier comprising a casing having a fan chamber at one end thereof, and a blast fan mounted in said fan

chamber, a series of vertical partitions dividing the interior of said casing into a plurality of drying chambers, the partitions adjacent said fan chamber being spaced from the top and bottom of said casing to form air circulating trunks and the chamber remote from said fan chamber having a trunk between one of its partitions and the end wall of the casing communicating with the upper and lower air trunks, the upper air trunk having means for obstructing the flow of air therethrough and compelling it to pass downwardly in said remote drying chamber, the wall of said remote chamber having exhaust air ports and a plurality of drying screens mounted in said remote chamber.

1,418,011. ELECTRICAL WATER HEATER. HERMANN MEHN, Berlin-Tempelhof, Germany, assignor to Dr. Kurt Glahn, Berlin-Wilmersdorf, Prussia, Germany. Filed Oct. 12, 1921. Serial No. 507,361. 3 Claims. (Cl. 219—39.)



1. An electric water heater, comprising, in combination, disk-shaped electric heating bodies, and flat boxes arranged in alternation with said bodies and having each inwardly extending ribs in its top and in its bottom, the upper ribs extending into the grooves between the lower ones, and reversely, all grooves forming a continuous water passage.

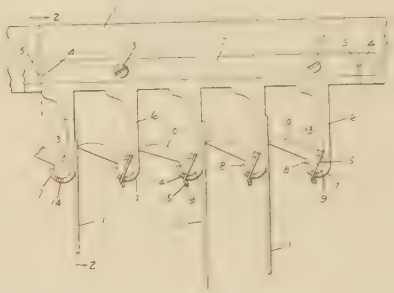
1,418,012. SIGN. PAUL HILDRETH MINER, Brockton, Mass. Filed July 21, 1921. Serial No. 486,509. 5 Claims. (Cl. 40—139.)

1. A reading sign comprising characters, certain digits only of which are adapted for continuous movement.

1,418,013. PROCESS OF PURIFYING AND DECOLORIZING WATER. MARTIN F. NEWMAN, Oakmont, Pa., assignor to Wm. B. Scaife & Sons Company, Oakmont, Pa., a Corporation of Pennsylvania. Filed Sept. 5, 1919. Serial No. 321,860. 4 Claims. (Cl. 210—28.)

1. The process of treating water for clarification and the reduction of color due to soil acids, vegetable extracts or other causes, consisting in first treating the water with an alkali in connection with a bleaching agent, following this by treating the water with a coagulent, then treating the water with a reagent to remove any excess bleaching agent which may be present.

1,418,014. SUPPORTING MEANS FOR STRIPS OF VENEER AND THE LIKE. ADDISON H. NORDYKE, Indianapolis, Ind., assignor to Indianapolis Manufacturing Company, Indianapolis, Ind., a Corporation of Indiana. Filed May 23, 1921. Serial No. 471,911. 5 Claims. (Cl. 34—26.)



1. A supporting means for strips of veneer and the like, comprising a rack, a plurality of uniformly spaced bars depending from said rack, there being a socket at the lower end of each bar, said socket having a slot longitudinally thereof, and a finger having a circular head adapted to enter said socket, the opposite end of said finger adapted to impinge an object against the next succeeding bar and hold the same suspended.

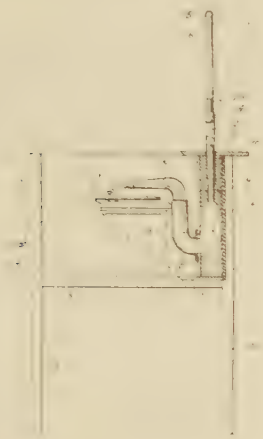
1,418,015. REFRIGERATING APPARATUS. FRED E. NORTON, Worcester, Mass., assignor to Jefferies-Norton Corporation, Worcester, Mass., a Corporation of Delaware. Original application filed Mar. 3, 1915, Serial No. 11,850. Divided and this application filed Jan. 26, 1918. Serial No. 213,888. 27 Claims. (Cl. 62—122.)

1. In a system of the class described, a reverse flow interchanger for the cooling and liquefaction of a gaseous working fluid, means for sustaining the pressure on the fluid in the return side of said interchanger, and fluid circulating means for transferring latent heat from the fluid undergoing liquefaction to the liquid in said return side.

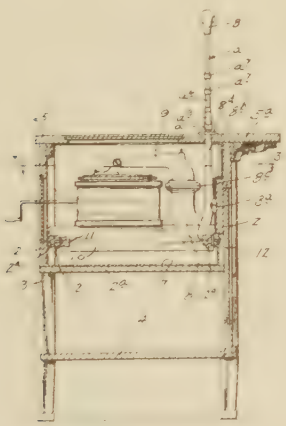
1,418,016. MOUNTING FOR SOUND-REPRODUCING MACHINES. EUGENE F. O'NEILL, Minneapolis, Minn., assignor to Beckwith-O'Neill Company, Minneapolis, Minn., a Corporation of Minnesota. Filed Oct. 4, 1920. Serial No. 414,520. 4 Claims. (Cl. 274—2.)

1. A sound reproducing machine mounting for salesrooms having in combination, a support adapted to receive the motor cabinet and turntable of a sound reproducing

machine, a post on said support enclosing a chamber, a tone arm mounted on said post with which said last mentioned chamber communicates, and a listening device mounted on said support and also communicating with said last mentioned chamber.



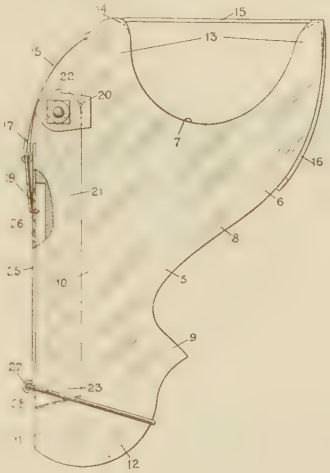
1,418,017. MOUNTING FOR SOUND-REPRODUCING MACHINES. EUGENE F. O'NEILL, Minneapolis, Minn., assignor to Beckwith-O'Neill Company, Minneapolis, Minn., a Corporation of Minnesota. Filed Apr. 20, 1921. Serial No. 462,975. 6 Claims. (Cl. 274—2.)



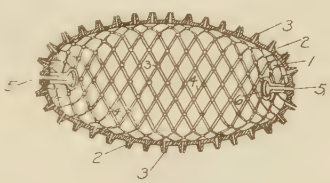
1. A sound reproducing machine mounted for salesrooms having, in combination, a device comprising a support adapted to be adjusted to receive the motor cabinet and turntable of various sizes of sound reproducing machines, and also comprising a closed chamber, a hollow bracket secured in said chamber, the tone arm for the supported sound reproducing machine being carried thereby in communication with its interior, and a listening device mounted on said device and also communicating with the interior of said bracket.

1,418,018. BROOM PRESS. WALKER P. ORR, Diana, Tenn. Filed June 18, 1921. Serial No. 478,640. 4 Claims. (Cl. 300—10.)

1. A broom press embodying a body member having a recess for the reception of broom material, means carried by the body member for holding various quantities of broom material within the recess, said means comprising a flexible member secured at one end to the press and adapted to extend over a recess, an adjusting member movably connected to the body member, the opposite end of said flexible member being detachably connected to the adjusting member.

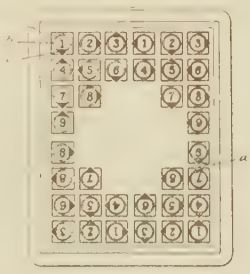


1,418,019. BATH BRUSH. SUSAN CLARE PEARSON, New York, N. Y. Filed May 17, 1921. Serial No. 470,442. 4 Claims. (Cl. 15—122.)



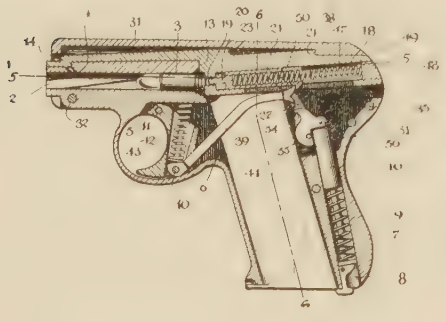
1. A bath brush comprising a rubber container adapted to receive a cake of soap; each end of the container being provided with an inlet slot having its ends enlarged and the edges of the walls about said slots being reinforced; and a multiplicity of hollow truncated projections extending radially from said container.

1,418,020. PLAYING CARDS. MILTON B. REACH, Chicopee, Mass. Filed June 8, 1921. Serial No. 475,998. 19 Claims. (Cl. 46—25.)



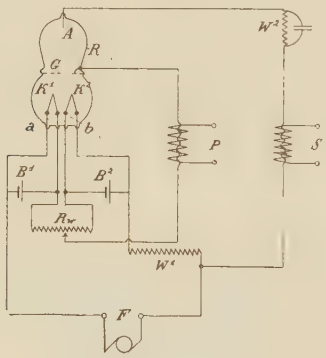
1. A playing card having the back surface thereof divided into a multiplicity of enclosed areas with deal indicating symbols alike in character located thereat, each of said symbols being one of a series corresponding in number to the number of rotations of the hands, the directions of the deals being indicated by the different locations of the symbols in respect to said enclosed areas.

1,418,021. AUTOMATIC FIREARM. JOSEPH JOACHIM REIFGRABER, St. Louis, Mo. Filed June 8, 1920. Serial No. 387,329. 13 Claims. (Cl. 42—3.)



1. A firearm, including a body with a portion having an abutment, and a barrel with a lock shoulder; and a breech block with rear and front shoulders normally in engagement with the abutment and lock shoulder respectively, to lock the breech block in the initial position, and an intermediate shoulder engageable with the abutment to limit the recoil of the breech block when a portion of the block adjacent the front shoulder is lifted from the lock shoulder by gas pressure.

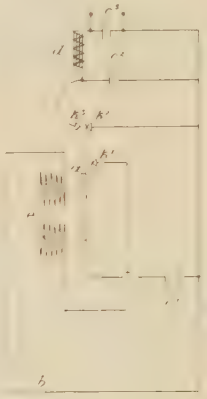
1,418,022. DISCHARGE-TUBE RELAY FOR UNDULATORY CURRENTS. EUGEN REISZ, Treptow, near Berlin, Germany. Filed June 5, 1915. Serial No. 32,437. 5 Claims. (Cl. 179—170.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



1. In a relay for undulatory currents comprising a discharge tube with an anode, a cathode, and grid-like auxiliary electrode between said anode and cathode dividing the relay into two separate parts, means to supply current of definite potential to each of said electrodes, and an auxiliary cathode in the portion of the relay containing the cathode, the potential applied to said auxiliary cathode being higher than that of the cathode but less than that of the grid-like electrode.

2. A discharge tube relay for undulatory currents, comprising an anode, a grid-like auxiliary electrode separating the discharge tube portion into two distinct parts, a cathode divided into two parts, a resistance connected in circuit between the said parts of the cathode, another resistance at the positive end of the cathode, and means for supplying current to said parts of the cathode and to the resistances in order to produce thereby a sufficiently large difference in potential between the different parts of the cathode to cause powerful ionization within the discharg tube below the auxiliary electrode.

1,418,023. APPARATUS FOR CONVERTING DIRECT CURRENTS OF LOW VOLTAGE INTO DIRECT CURRENTS OF HIGH VOLTAGE. EUGEN REISZ, Treptow, near Berlin, Germany. Filed June 25, 1915. Serial No. 36,306. 3 Claims. (Cl. 171—97.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



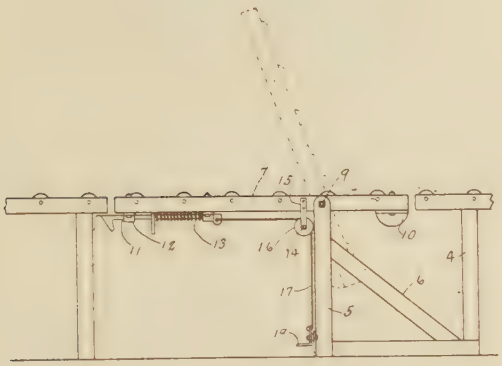
1. Means for converting direct currents of low voltage into direct currents of high voltage consisting of a circuit containing a source of low voltage current, a self induction coil and a circuit breaker, a condenser, a switching device in connection with said circuit breaker and the condenser, said switching device connecting the condenser with the circuit when the latter is opened by the circuit breaker and breaking the connection after a short period, a second condenser and a second switching device, the latter connecting the second condenser with the first one after it has been disconnected from the circuit by the first switching device, and a coil having ohmic and inductive resistance to cause a uniform discharge of high voltage direct current from the second condenser immediately after it has been loaded.

3. Means for converting direct currents of low voltage into direct currents of high voltage, consisting of a circuit containing a source of low voltage current and a coil having self induction provided with an armature, a make and break device consisting of three contacts controlled by said armature and adapted to be operated one after the other when the armature is oscillating, the first of said contacts being arranged in the circuit containing the coil and said source of current, a condenser connected with the second contact, said contact connecting the condenser with said circuit and disconnecting the same after a short period, a second condenser connected with the third contact, the latter connecting the same with the first condenser after it has been disconnected from the circuit, and a coil having ohmic and inductive resistance together with a third condenser to take up the charge from the second condenser and to cause a uniform discharge of high voltage direct current.

1,418,024. GATE FOR GRAVITY CARRIERS. FRED A. RIDER, Endicott, N. Y. Filed Oct. 29, 1918. Serial No. 260,184. Renewed Nov. 30, 1921. Serial No. 519,029. 4 Claims. (Cl. 193—55.)

1. The combination, with a gravity carrier comprising sections having a transverse gap forming a passageway between them, of a carrier section pivotally supported intermediate to its ends between said sections, one end

of said pivoted section having a counterbalance for tilting the other end of the section upwardly when the section is released, and means for normally locking said pivoted section in alignment with the other sections of the carrier.

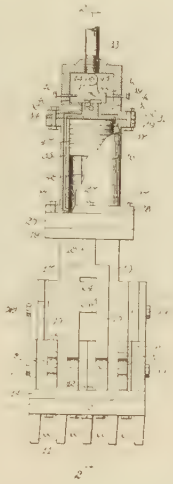


1,418,025. LET-OFF. HERMAN J. SATTLER, Sr., Quakertown, Pa. Filed May 4, 1921. Serial No. 466,713. 13 Claims. (Cl. 188—83.)

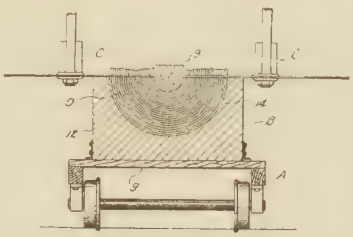
1. The combination with a warp head, of a friction band around the same, a line wrapped around the band and having one end connected thereto, a tension device connected to the other end of the line, a lever carried by the band, and means controlled by the lever for locking the band to the warp head.

1,418,026. ROD-STRAIGHTENING MACHINE. JOHN E. SCHMIDT and CLYDE E. MCARTHUR, Chicago, Ill. Filed Dec. 5, 1921. Serial No. 519,935. 7 Claims. (Cl. 153—48.)

1. In a machine of the class described, the combination with a fixed die member, of a die member movable with respect thereto, said die members having on their adjacent portions transversely disposed spaced arms, the arms at each side of each die member being alternately disposed and opposed and having their adjacent faces inclined in opposite directions at angles to one another, and means to reciprocate the movable member.



1,418,027. PROCESS FOR FORMING PLASTER BOARD. JOHN SCHUMACHER, Los Angeles, Calif. Filed Jan. 26, 1921. Serial No. 439,976. 7 Claims. (Cl. 154—28.)

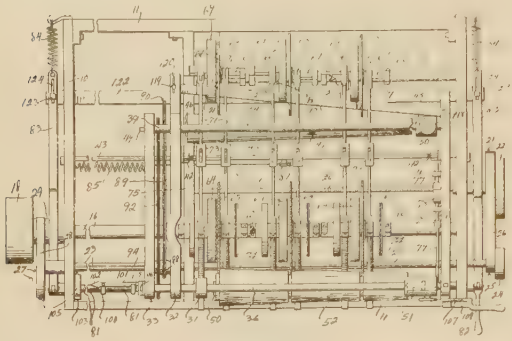


1. The process of shaping plaster board comprising forming sections of green plaster board, stacking said sections upon a warped surface corresponding to the shape desired and having an outline corresponding to the edges of the finished board, causing said board to conform to said surface, maintaining said board thereon until it has set, and then trimming the board at the edges of said surface after setting.

1,418,028. PATTERN-CONTROLLED WOODWORKING MACHINE. ALBERT P. SMITH, Omba, and WILLIAM E. SHOCKLEY, Hebron, Mo. Filed Mar. 3, 1921. Serial No. 449,378. 10 Claims. (Cl. 143—13.)

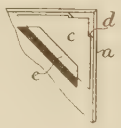
1. In a wood working machine, a rotatable work supporting means, a rotatable pattern supporting means, a roughing cutter associated with the work supporting means and movable toward or from the axis of the work, a finishing cutter associated with the roughing cutter but independently movable toward or from the work, controlling members associated with the pattern and bearing thereagainst and operatively connected respectively to the roughing cutter and the finishing cutter whereby to control the movement of said cutters toward or from the work in accordance with the pattern, means for driving said cutters and rotating the pattern and work supporting means, means for shifting the pattern and work longitudinally relative to the cutters, and means for hold-

ing the finishing cutters out of engagement with the work until the roughing cutters have cut a kerf equal in



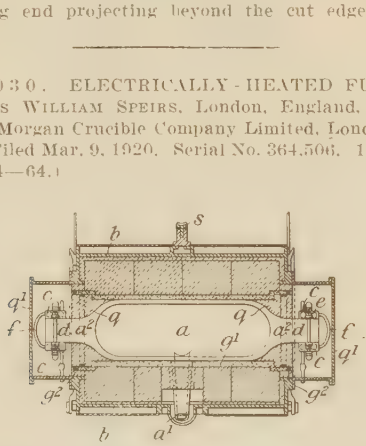
width to the width of the finishing cutters, said means then permitting the finishing cutters to engage the work within said kerf.

1,418,029. COVER FOR HERMETICALLY-SEALED TINS. FREDERICK JOSEPH SNOOK, Salisbury, England. Filed Jan. 11, 1922. Serial No. 528,502. 2 Claims. (Cl. 220—48.)



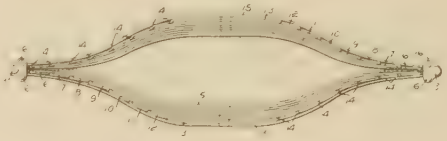
1. A slip-on lid for a sealed tin wherein the lid and flange or rim are cut away to form an opening therein, the cut edges of which fit the angle between the body and the end of the tin to be opened when the lid is applied thereto perpendicularly to the said end and wherein a flat cutting blade is arranged in the plane of the lid with its cutting end projecting beyond the cut edge thereof.

1,418,030. ELECTRICALLY-HEATED FURNACE. CHARLES WILLIAM SPEIRS, London, England, assignor to The Morgan Crucible Company Limited, London, England. Filed Mar. 9, 1920. Serial No. 364,506. 15 Claims. (Cl. 204—64.)



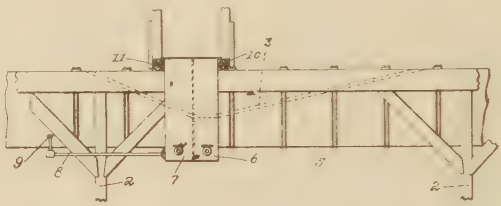
1. An electrically heated furnace including a casing provided with end openings, a crucible formed of an electric current conducting substance supported in said casing in a manner to withstand internal pressure and being free to expand and contract relatively to said casing under variations of temperature, the ends of said crucible extending through the end openings of the casing and being accessible for the ready application of conductor terminals from the exterior of the casing, and conductor terminals connected to the ends of said crucible.

1,418,031. VEHICLE SPRING. CHARLES P. STANBON, Lynn, Mass. Filed Apr. 30, 1919. Serial No. 293,799. 6 Claims. (Cl. 267—47.)



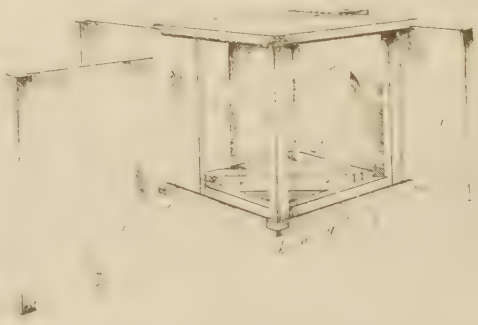
6. An elliptic spring comprising inner and outer master leaves, leaves of varying length between them with leaf positioning ears thereon, the outer master leaves movably locked to one common set of anchorages, the inner master leaves individually immovably locked to a different set of anchorages and interlocked with each other.

1,418,032. WATER METER. JOHN C. STEVENS, Portland, Oreg., assignor, by mesne assignments, to Leupold, Voelpel & Company, Portland, Oreg., a Corporation of Oregon. Filed Feb. 3, 1917. Serial No. 146,459. Renewed Apr. 17, 1922. Serial No. 553,926. 1 Claim. (Cl. 73—167.)



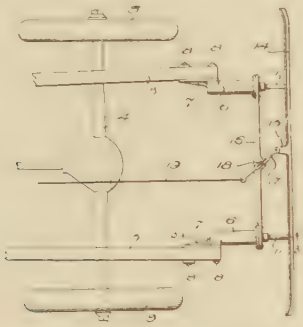
An open-channel water meter including in combination, means for forming a constricted throat for the water, two wells, one of which is connected to the channel at the constricted throat, and the other of which is connected to the channel at a point above the constricted throat, a float in each well, a guide pulley at the bottom of one of said wells, a cable connected to said floats and running over said guide pulley, a second guide pulley above the wells over which the cable runs, and means operated by said second guide pulley for indicating the volume of flow of water through the channel.

1,418,033. MEANS FOR TAKING PHOTOGRAPHS WITH SPECIAL SCENIC OR BACKGROUND EFFECTS. GODFREY HEATHCOTE SUTCLIFFE, West Ealing, England. Filed Dec. 10, 1921. Serial No. 521,444. 9 Claims. (Cl. 95—18.)



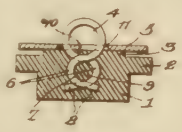
1. A portable device adapted to be used in connection with a camera for taking photographs with special scenic or background effects, comprising a supporting framework mounted adjacent the front end of the camera and having top and bottom closures, and a transparent screen arranged at an angle of substantially 45° to the axis of the camera and supported by the top and bottom closure.

1,418,034. ATTACHMENT FOR MOTOR VEHICLES. JOHN GRANVILLE TENNENT, Dallas, Tex. Filed June 17, 1921. Serial No. 478,290. 6 Claims. (Cl. 116—28.)



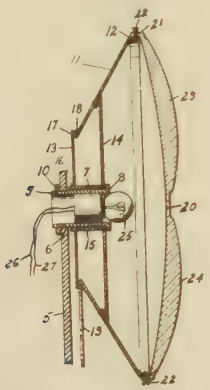
4. A vehicle attachment comprising a pair of cylinders arranged at the rear of the vehicle, a plunger mounted in each of said cylinders, means for normally retaining said plungers in outer position, a bumper carried by said plungers, a cross bar mounted between said cylinders, a link mounted on said cross bar and provided with a slot, said cross bar being provided with a pin engaging within said slot, one end of said link being pivotally connected with said bumper, an indicator mounted adjacent the driver's seat of the vehicle, and means connected between said indicator and the other end of said link for operating said indicator upon movement of said bumper.

1,418,035. BOTTLE STOPPER. CHARLES F. THATCHER, Providence, R. I. Filed Sept. 7, 1920. Serial No. 408,468. 6 Claims. (Cl. 215—55.)



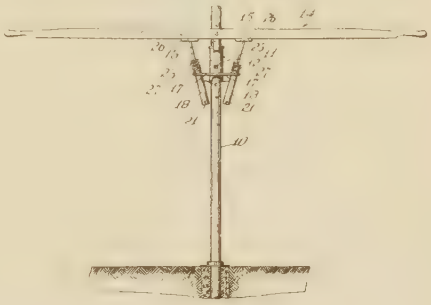
1. In a bottle stopper, a rubber body, and a loop structure having a body portion provided with a bail receiving eye in its upper end and having an eye-like part in its lower end spaced from the bail-receiving eye, said loop structure being embedded in the rubber body and an integral part of the latter extending through the eye-like part in the lower end of the loop structure and for a distance below the latter.

1,418,036. DIRECTION SIGNAL. WILLIAM R. TONKIN, Bisbee, Ariz. Filed Dec. 7, 1921. Serial No. 520,651. 2 Claims. (Cl. 116—49.)



1. A direction signal for vehicles comprising a support carried by one end portion of the vehicle, adjacent the side of the vehicle, a tubular shaft secured to the support, a lamp projecting from one end of the shaft, a lamp casing having a partition therein, said partition cooperating with the rear wall to provide a bearing adapted to receive the shaft, a lens extending over the open end of the casing, each half of the lens being differently colored, and means engaged with the casing for rotating the same upon the shaft to position the desired colored portion of the lens adjacent the side of the vehicle.

1,418,037. TEETER DEVICE. WILLIAM S. TOTHILL, Chicago, Ill. Filed Mar. 21, 1921. Serial No. 453,936. 13 Claims. (Cl. 42—22.)



1. In a device of the character described, the combination of a support, a head mounted thereon, a teeter device pivotally mounted on the upper portion of said head, arms projecting from opposite sides of said head at substantially right angles to the axis of the pivot of the teeter device, an outwardly and upwardly inclined spring-holding device carried by each arm, and a coiled spring held at its lower end to each of said inclined devices and connected to its upper end to said teeter device.

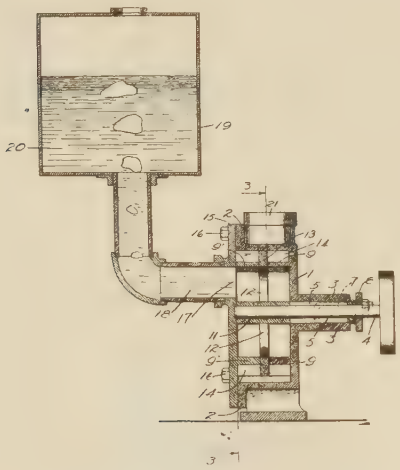
1,418,038. GOLF CLUB. SINCLAIR TOUSEY, New York, N. Y. Filed Jan. 6, 1921. Serial No. 435,487. 4 Claims. (Cl. 46—4.)

1. A golf club having its shaft below its handle portion provided with a ridge extending about the same.

1,418,039. GOLF CLUB. SINCLAIR TOUSEY, New York, N. Y. Original application filed Jan. 6, 1921, Serial No. 435,487. Divided and this application filed Mar. 30, 1922. Serial No. 548,118. 1 Claim. (Cl. 46—4.)

A golf club having its shaft below the handle part, provided with ring shaped spaced apart protuberances, substantially as described.

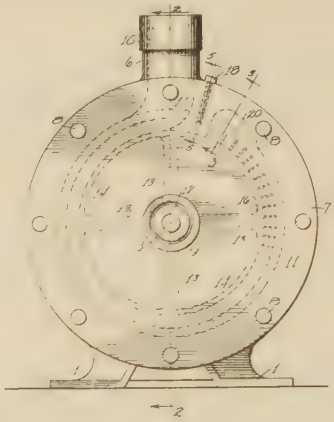
1,418,040. COMPRESSOR OR VACUUM PUMP. REUBEN N. TRANE, La Crosse, Wis. Filed June 7, 1920. Serial No. 387,232. 6 Claims. (Cl. 230—14.)



1. In a compressor or vacuum pump, a casing provided with an air inlet and having a single outlet, a tank containing a liquid disposed above the outlet and having free communication with the interior of the casing through said outlet, whereby the interior of the casing at all times contains liquid, and means within the casing for entraining air and for forcing it into the tank containing the liquid.

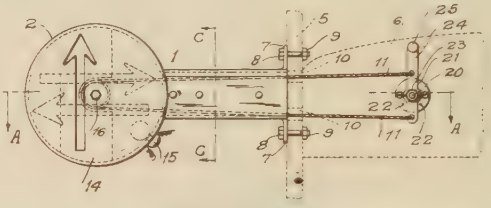
1,418,041. CENTRIFUGAL PUMP. REUBEN N. TRANE, La Crosse, Wis. Filed Nov. 11, 1920. Serial No. 423,428. 10 Claims. (Cl. 253—176.)

1. A pump of the type described, comprising a casing having a cylindrical chamber, an impeller wheel mounted for revolution with said chamber, said impeller wheel having a circumferential groove or channel, and a series of blades carried by said impeller wheel and disposed within said channel, said blades extending at right angles to



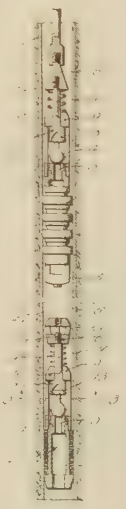
the plane of revolution of the impeller wheel and terminating short of the outer edges of the groove.

1,418,042. VEHICLE SIGNAL. GEORGE L. WENK, Mechanicsburg, Pa. Filed July 16, 1921. Serial No. 485,152. 5 Claims. (Cl. 116—47.)



1. A hollow frame for a signaling device consisting of sheet metal, the metal being cut to form a blank having a narrow portion at the center and at opposite ends flanges 3, the central portion being bent to a cylindrical shape 2, and the flanges 3 turned over and overlapped to form a hollow arm or extension, and arms 12 having bearings at the ends secured to the hollow arm and extended to the center of the cylindrical shaped part.

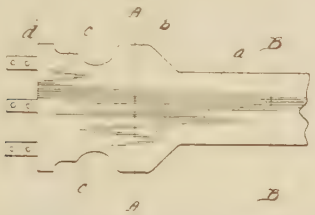
1,418,043. PUMP VALVE. GEORGE S. WILCOX, Burkburnett, Tex. Filed June 17, 1920. Serial No. 389,724. 5 Claims. (Cl. 103—61.)



1. A structure of the character described including a standing valve having a movably mounted valve member,

a piston slidably mounted above the standing valve and including a movable valve member, means for positively engaging and moving the valve member of the standing valve into a closed position yieldably held out of engagement with the valve member and positioned for engagement by the piston, and means for moving the valve member of the piston to a closed position yieldably held out of engagement with the valve member.

1,418,044. DRAG LINK FOR STEERING GEARS. FRANK P. WILLIAMS, Detroit, Mich. Filed May 27, 1921. Serial No. 473,092. 8 Claims. (Cl. 74—17.)



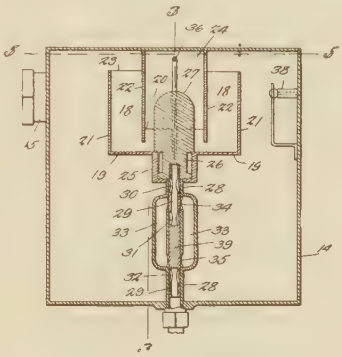
1. A link for use in motor vehicle steering gear, comprising a single piece stamping formed up to provide a rod portion having a closed but hollow section and an integral tubular head portion at the end and of larger diameter.

1,418,045. COLLAPSIBLE RIM. EDWARD FAY WILSON, Chicago, Ill., assignor to Lightning Change Rim Corporation, Berrien Springs, Mich., a Corporation of Michigan. Filed Dec. 1, 1919. Serial No. 341,803. 2 Claims. (Cl. 301—33.)

1. In a rim cut apart at one point in its circumference, a link connecting the ends of the rim, said link having a web portion extending circumferentially within the rim and spanning the cut, connecting parts extending laterally from the web portion and having their ends bent outwardly substantially parallel with the flanges of the rim and pivotally connected to same, the pivotal connection at one end being adjacent to the cut and at the other end spaced from the cut to swing the first end inwardly when collapsing the rim, the connecting parts for the inwardly swinging rim end extending circumferentially away from the adjacent pivot and then inwardly to the web of the link, the web portion being slotted to provide clearance between the parts and the outwardly turned flanges of the rim at said inwardly swinging rim end to permit the collapsing of the rim.

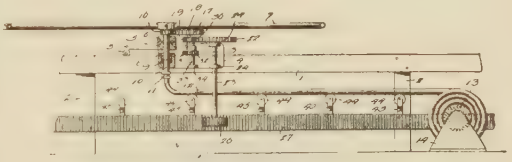
1,418,046. AUTOMATIC OIL-FEED DEVICE. WILLIAM H. WIX, Baltimore, Md. Filed July 14, 1920. Serial No. 396,214. Renewed Jan. 21, 1922. Serial No. 531,000. 4 Claims. (Cl. 10—126.)

4. The combination with a die-stock operating with a rotary motion; of an oil receptacle carried thereby, a pair of laterally spaced oil-collecting chambers mounted in the receptacle into which the oil is splashed by the motion of the die-stock, said chambers being located adjacent to one end of the receptacle and having outer side walls spaced therefrom, and inner walls extending from said receptacle end wall and terminating short of the bottom of the chambers, a trough extending between the chambers and open to the interior of the receptacle, an outlet cylinder leading from the trough, a feed tube leading from the cylinder, a



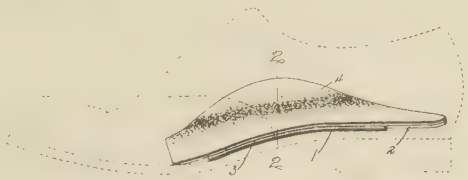
reciprocatory plunger movable into and out of the cylinder by the motion of the die-stock, a hollow stem extending from the plunger and slidably seating in the tube, the outer end of said stem opening into the tube, and a by-pass having entrance and exit ports, the aforesaid tube having a port which opens into the cylinder when the plunger is out of the same, and other ports for establishing communication between the interior of the stem and the entrance and exit ports respectively of the by-pass.

1,418,047. TRAVELING SPRINKLER. ERNEST ZERWECK, Oakland, Calif. Filed June 15, 1920. Serial No. 389,092. 4 Claims. (Cl. 299—53.)



1. A rotatably mounted drum, a track, a carrier mounted to travel on said track, a rotatably mounted sprinkler carried by the carrier, a hose carried by the carrier and wound upon said drum to directly rotate the sprinkler, a horizontally extending rack, and gearing interposed between the rack and sprinkler for moving said carrier along the track.

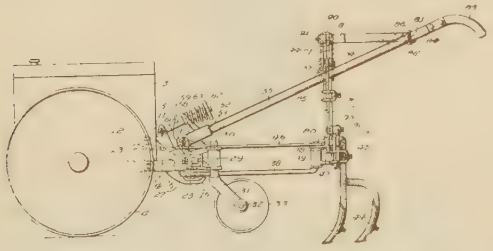
1,418,048. ARCH SUPPORT. JOSEPH ABRAMOWITZ, Madison, Ill. Filed Jan. 31, 1921. Serial No. 441,385. 2 Claims. (Cl. 36—71.)



1. An arch-support comprising a base adapted to fit within a shoe, an arch-supporting element also contoured

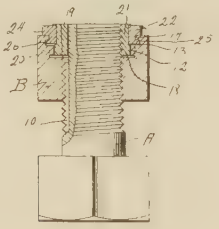
to fit within a shoe and shaped to conform approximately to the instep or arch of the foot, and a sheet metal hinge connection between the base and one side margin only of the arch-supporting element and yieldingly maintaining the arch-supporting element normally in obliquely disposed spaced relation to the base, the arch-supporting element being otherwise out of engagement with the base and adapted through the inherent resiliency of said hinge connection to yieldingly rise and fall relatively to the base on each application and relief of the weight of the foot.

1,418,049. AGRICULTURAL IMPLEMENT. CHARLES J. ALLEN, Mooreštown, N. J., and JOSEPH MADER, Philadelphia, Pa., assignors to S. L. Allen & Co., Inc., a Corporation of Pennsylvania. Filed Mar. 26, 1920. Serial No. 368,842. 13 Claims. (Cl. 97—42.)



1. In a machine of the class described, the combination with a frame and carrying wheels therefor, of a pair of rearwardly diverging steering posts mounted for vertical movement on said frame, a gang bar carrying soil working implements, means for suspending said gang bar from said posts, and means comprising vertically moveable handles relatively moveable with respect to and supported by said posts operative to shift said gang bar laterally.

1,418,050. NUT LOCK. EDWARD MILTON BABLE, Sistersville, W. Va., assignor of one-half to Tecumseh S. Hanes, Kanauga, Ohio. Filed Oct. 15, 1921. Serial No. 507,980. 3 Claims. (Cl. 151—28.)

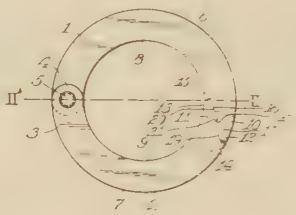


1. In combination with a bolt having a groove extending longitudinally thereof, a nut coacting with the bolt and having the outer end portion of its bore enlarged to define a recess, said recess being provided with an annular series of teeth, the wall of the recess being formed outwardly of said teeth with peripheral grooves leading at one end into cut away portions extending to the face of the nut, a locking member insertible within said recess and including a ring adapted to embrace the bolt and formed with a key fitting within said groove in the bolt, said ring being formed with a series of teeth meshing with the teeth within said recess, and a split ring permanently and revolubly associated with said ring and formed with a reduced portion received within said recess and provided with outwardly extending projections received within said cut away portions whereby upon subsequent rotation of the split ring said projections will be received within said grooves in the nut.

1,418,051. LIGHTING SYSTEM FOR AUTOMOBILES. EDWIN C. BALLMAN, St. Louis, Mo., assignor to Valley Electric Company, Wilmington, Del., a Corporation of Delaware. Filed Sept. 13, 1915. Serial No. 50,408. 3 Claims. (Cl. 171—242.)

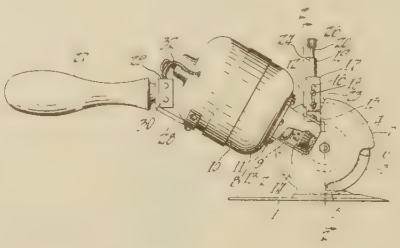
1. A lighting system for an automobile having a magneto, comprising, a low resistance lamp connected in circuit with said magneto, a winding of low resistance and of high reactance connected in said circuit, and a core for said winding constructed to form a nearly closed magnetic circuit, adapted to cause the voltage at said lamp to remain substantially constant at varying speeds of said magneto, substantially as and for the purpose set forth.

1,418,052. SECTIONAL MACHINERY REPAIR WASHER. CHARLES N. BARTON, Indianapolis, Ind., assignor of one-third to Will Peek and one-third to John W. Langley, both of Indianapolis, Ind. Filed Mar. 10, 1920. Serial No. 364,671. 4 Claims. (Cl. 85—51.)



1. A machinery repair washer comprising a circular plate composed of two curved sections hinged together at one end, each section having a tapered tongue at its opposite end, each tongue having a base portion that is relatively narrower than the diametrical width of the section and having also a relatively narrower blunt end, the outer portion of one of the sections having a stop shoulder at the base of the tongue and the outer side of the tongue having a locking shoulder facing the stop shoulder, the inner portion of the other one of the two sections having a stop shoulder at the base of the tongue and the inner side of the tongue having a locking shoulder facing the stop shoulder to co-operate with the first-described locking shoulder.

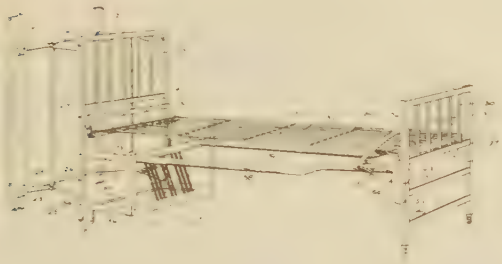
1,418,053. CUTTING MACHINE. FREDERICK BAUMANN, Jr., East Orange, N. J. Filed Dec. 23, 1918. Serial No. 267,970. 13 Claims. (Cl. 164—76.)



1. In a device of the character described, a base plate, a support thereon, cutting means rotatably mounted on

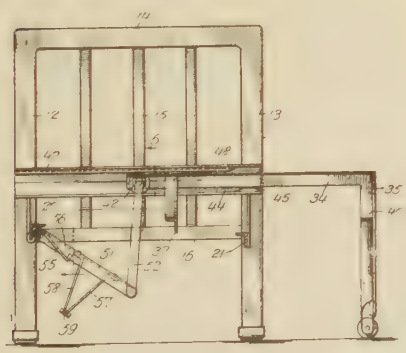
said support, a motor therefor having a casing with its axis projecting rearwardly at such an angle as to leave the view of the cutting means by the operator unobstructed and the prolongation of said axis intersecting the axis of the cutting means, a bevel gear transmission between said motor axis and said cutting means, and a handle projecting from the rear end of said casing and spaced from said cutting means at least a distance substantially equal to the length of said motor.

1,418,054. WALL BED. MATTHEW F. BAYER, Kenosha, Wis., assignor to Simmons Company, Kenosha, Wis., a Corporation of Delaware. Filed Jan. 6, 1919. Serial No. 269,768. 6 Claims. (Cl. 5—18.)



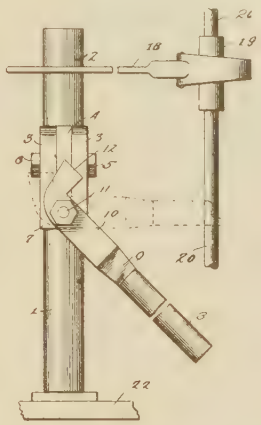
1. In a bedstead of the class described, the combination of a stationary structure, a vertical frame, means permitting bodily horizontal movement of said frame away from said structure while maintaining said frame vertical, and a bedstead frame foldably attached to said first frame and means whereby the movement of the vertical frame is controlled by the folding of the bedstead frame.

1,418,055. EXTENSION COUCH. MATTHEW F. BAYER, Kenosha, Wis., assignor to Simmons Company, Kenosha, Wis., a Corporation of Delaware. Filed Dec. 19, 1919. Serial No. 346,087. 8 Claims. (Cl. 5—46.)



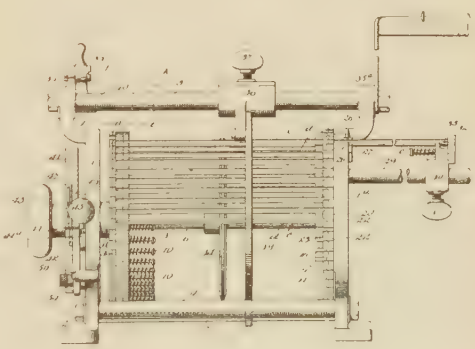
1. In a folding couch, the combination of a stationary mattress frame section, and a movable mattress frame section slidable with reference to the stationary section, a manually controlled arm mounted to swing on the stationary section, spring means opposing swinging movement of said arm, and means connecting the outer end of said arm to the movable section.

1,418,056. POST FOR WELL-DRILLING ROTARIES. JOSEPH OLIN BENNETT, Shreveport, La. Filed Mar. 10, 1920. Serial No. 364,706. 3 Claims. (Cl. 255—75.)



2. A post of the character specified comprising a lower section and an upper section, said sections having interengaging lugs and a pivotal connection between the lugs, and releasable means normally operative, connected with the lower section for engaging the lugs to hold the sections in alinement.

1,418,057. FONTING APPARATUS. LINN BOYD BENTON and MORRIS FULLER BENTON, Plainfield, N. J., assignors to American Type Founders Company, Jersey City, N. J., a Corporation of New Jersey. Filed June 9, 1921. Serial No. 476,170. 27 Claims. (Cl. 276—3.)

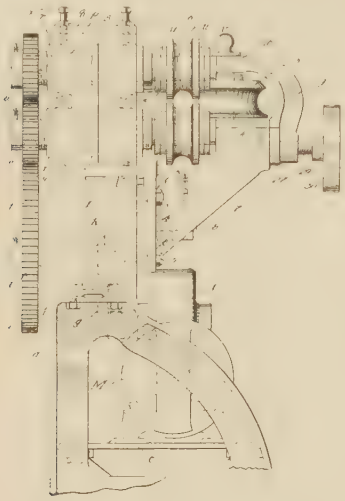


1. An apparatus of the character described, comprising a delivery element adapted to carry a plurality of bodies, a receiving element in axial alinement therewith, means whereby bodies may be transferred from the delivery element to the receiving element, and a gauge for regulating the number of bodies delivered.

1,418,058. TUBE-WELDING MACHINE. RICHARD O. BERG and SIMON BERG, Detroit, Mich., assignors to Michigan Steel Tube Products Co., Detroit, Mich., a Corporation of Michigan. Filed July 12, 1920. Serial No. 395,434. 20 Claims. (Cl. 78—88.)

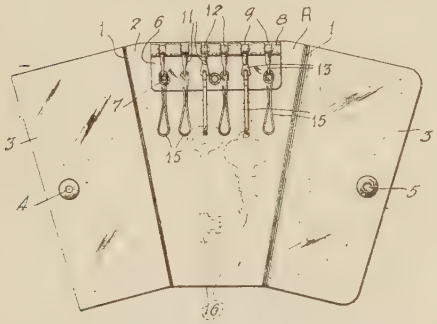
1. In a tube welding machine, the combination of roll shaft supports, roll shafts rotatably supported in said supports but free from support at one end, and tube rolls

supported on such free ends of said shafts and removable from such ends freely, and nuts threaded on such ends



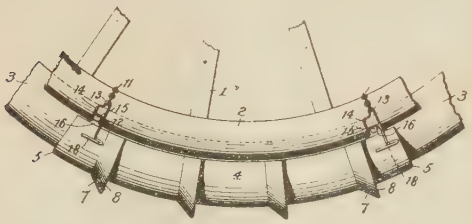
of said shafts and on both sides of the rolls for adjustably supporting the rolls on the shafts.

1,418,059. KEY CASE. BERNARD BIEHL, Sr., Newark, N. J., assignor to J. L. Sommer Manufacturing Co., a Corporation of New Jersey. Filed Sept. 2, 1921. Serial No. 497,927. 5 Claims. (Cl. 150—40.)



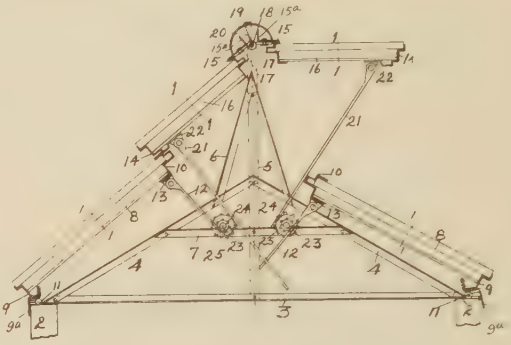
1. A key case including a tubular support having a transverse slot therein, an anchor member having a shank passing into said tubular support through said slot and a head on the end thereof arranged within said tubular support of a diameter greater than the width of said slot, whereby said anchor member can swing in said slot and revolve about its own axis relatively to said tubular member, and a key receiving clip pivotally connected to the other end of said anchor member.

1,418,060. WHEEL ANTISLIPPING ATTACHMENT. WILLIAM A. BIGGS, Meridian, Miss. Filed July 17, 1919. Serial No. 311,417. 3 Claims. (Cl. 152—14.)



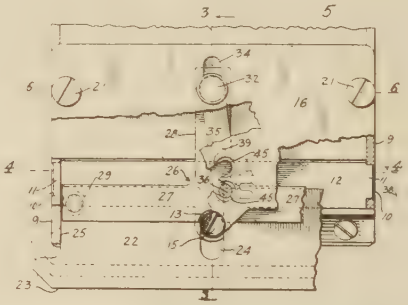
1. An attachment of the character described comprising a body portion consisting of vulcanized rubber having fabric embedded therein, said body portion being of a curved formation to be applied to a vehicle tire and conform to the surface thereof, and spaced integral traction ribs disposed radially of the body, said ribs having a straight wall on one side, and a bevelled wall on the other.

1,418,061. SKYLIGHT. BENJAMIN P. BLASKI, Chicago, Ill., assignor to Blaski Manufacturing Co., Chicago, Ill., a Corporation of Illinois. Filed Nov. 19, 1920. Serial No. 425,127. 27 Claims. (Cl. 108—31.)



1. In combination, a framework including upper and lower supporting members, closure means for said framework comprising upper and lower sections, means hingedly connecting said upper and lower sections to said upper and lower supporting members, respectively, links pivotally connected at one end to said sections, respectively, and means operatively associated with said links and so adapted that the operation of one of said sections is counterbalanced by that of the other section.

1,418,062. CALCULATING MACHINE. ROBERT G. C. BOA, Chicago, Ill., assignor to Remington Accounting Machine Corporation, New York, N. Y., a Corporation of New York. Filed Apr. 21, 1921. Serial No. 463,154. 17 Claims. (Cl. 235—59.)

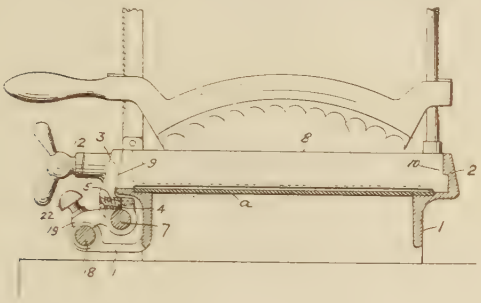


1. In a calculating machine, the combination of a carriage, a follower forming part of a totalizer-actuator control mechanism, a carrier adjustable to different positions along said carriage, a cam adjustable on said carrier and co-operative with said follower, a guide fixed on the carrier, and an operating member connected to said cam and engaging and movable bodily along and guided by said guide and which determines the point of adjustment of the adjustable cam by the adjustment of said operating member along the fixed guide.

1,418,063. MEAT SLICER. WILLIAM F. H. BRAUN, Philadelphia, Pa., assignor to The Braun Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 29, 1921. Serial No. 504,098. 3 Claims. (Cl. 17—24.)

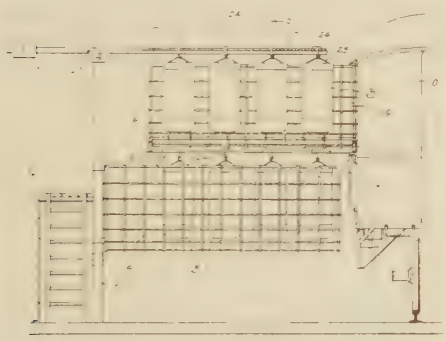
3. In a meat slicer the combination of a traveler provided at one side with a fixed undercut wall and at the

other side with a pintle rod and feed screw, a meat table slidable in respect to the traveler and having a side wall co-operating with the fixed side wall of the traveler, and two hinge knuckles, turnably and slidably mounted on



the rod and in mutual engagement for sliding motion and whereof one is provided with a half nut for engaging and disengaging the screw and whereof the other is provided with a wall and a fastening device for engaging and disengaging the meat carriage.

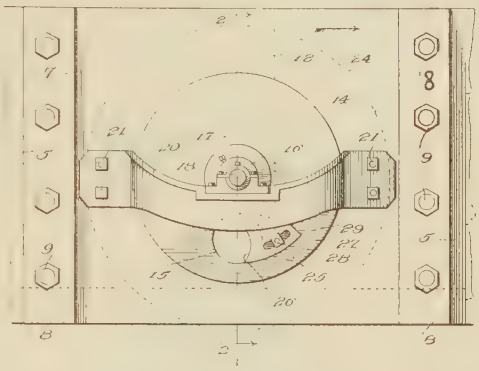
1,418,064. MAIL-BAG-DELIVERY APPARATUS. GEORGE D. BREMNER, Brooklyn, N. Y., and ELMER E. TROUTMAN, Ashland, Pa. Filed July 27, 1921. Serial No. 487,890. 3 Claims. (Cl. 258—17.)



1. The combination with relatively movable and stationary objects, of a bag supporting comb-like member on one of said objects and a bag receiving net carried by the other of said objects said net comprising a rigid frame holding the net with bag-receiving portion at an inclination to cause a lifting action on the bag when engaging it and also including a concave bottom into which the bag ultimately is received, the mechanism being so designed that when the movable object passes the stationary one any number of bags supported on the member will be received by the net and thereby slip from the teeth of the comb-like member.

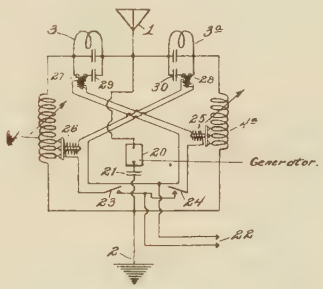
1,418,065. SAMPLING APPARATUS. ROBERT LEE BRUNER, Corinth, Miss. Filed July 6, 1920. Serial No. 394,379. 9 Claims. (Cl. 73—21.)

1. In a sampling apparatus of the character described, in combination, a conduit having an opening in its side wall, a closure plate for said opening, said closure plate having an opening constituting the sampling orifice of said conduit, a baffle arranged on the inner surface of said closure plate adjacent said sampling orifice, a rotatable disk arranged on said closure plate and having a sampling orifice adapted to periodically register with the sampling orifice of said closure plate, a throttle plate for controlling the sampling orifice of said disk, a rotatable shaft carrying said disk, a bearing for said shaft spaced from said



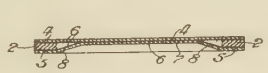
closure plate, a stepped bearing for said shaft carried by said closure plate, and means for imparting rotation to said shaft.

1,418,066. RADIOTRANSMITTING SYSTEM. THEODORE R. BUNTING, Norfolk, Va. Filed June 2, 1920. Serial No. 385,903. 1 Claim. (Cl. 250—9.)



In a radio transmitting system employing continuous or undamped waves the frequency of which is altered to accomplish signalling, the combination of two parallel radiating circuits consisting of the same antenna and the earth, between which are two electrical circuits each of which includes a tuning inductance and an impedance circuit composed of an inductance shunted by a capacity, each impedance circuit tuned to the frequency of the opposite radiating circuit and the two radiating circuits tuned to oscillate at frequencies sufficiently different to render negligible the impedance of each impedance circuit to the oscillating current of the radiating circuit of which it is a part, means for independently changing the value of the electrical constants of the two radiating circuits to accomplish the transmission of two messages, and simultaneously with each operation to automatically compensate, for such change, the value of the electrical constants of the impedance circuit included in the opposite radiating circuit.

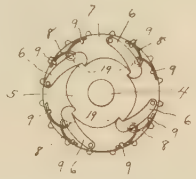
1,418,067. WOODEN PANEL. JOSEPH BUTLER, Auckland, New Zealand, assignor to The Kauri Timber Company Limited, Melbourne, Victoria, Australia, a Company of Victoria. Filed July 5, 1921. Serial No. 482,567. 2 Claims. (Cl. 217—17.)



1. A composite panel for packing cases, comprising a flat, skeleton frame, and outer and inner veneer sheets disposed at their marginal portions against the opposite

side faces of said frame; the outer veneer sheet having a well-defined, flat central area which is impressed inwardly of the panel and disposed immediately against and secured directly to the central portion of the inner veneer sheet, the portion of the outer sheet which lies between its said marginal and central portions being inclined relatively thereto.

1,418,068. AUTOMOBILE STARTING DEVICE. JOHN F. COLLINS, Philadelphia, Pa. Filed Sept. 7, 1918. Serial No. 253,038. 1 Claim. (Cl. 74—54.)



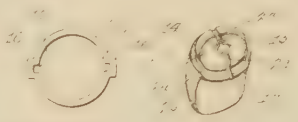
In a device of the character described, a ratchet wheel adapted to be fixed to a shaft to be rotated, a wheel journaled on said shaft adjacent said ratchet wheel, dogs pivoted to one face of the last mentioned wheel adapted to coact with the ratchet wheel, said dogs each having a chamber in its back near its head and springs each connected at two points to the second named wheel, each spring having a loop intermediate its ends for registration with the chamber in one of the dogs as specified.

1,418,069. WHEEL. WILLIAM P. DALRYMPLE, Chicago, Ill., assignor to Chicago Steel Wheel Co., Chicago, Ill., a Corporation of Illinois. Filed Aug. 28, 1919. Serial No. 320,357. Renewed Oct. 13, 1920. Serial No. 416,778. 23 Claims. (Cl. 301—63.)

5. A wheel comprising in combination a hub, a rim, and a rigidly-dished sheet metal plate adapted by hooked engagement with said rim to support said hub.

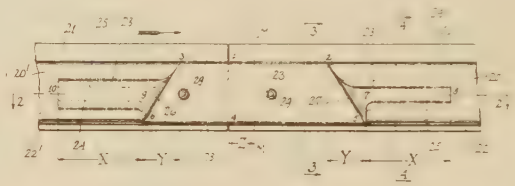
1,418,070. ARTIFICIAL-TOOTH CROWN AND SECURING MEANS THEREFOR. ENOCH M. FREDERICKS, Chicago, Ill., assignor to Joy Tooth Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 10, 1919. Serial No. 336,905. 7 Claims. (Cl. 32—30.)

4. The combination with a tooth crown having a post receiving inwardly enlarged tapered cavity therein and provided with one or more grooves in its surface adjacent to the outer end of said cavity, said groove or grooves leading from the cavity to the outer surface of the crown, the crown also having a reduced and substantially annular portion and a substantially annular shoulder around the outer extremity of said cavity through which said grooves are extended, a metallic band located



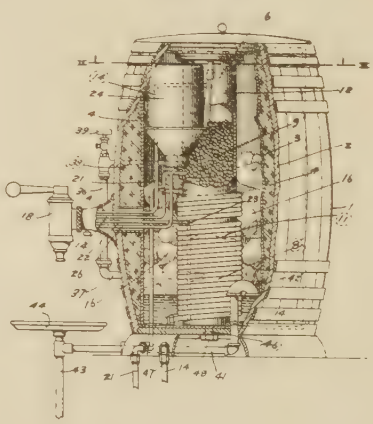
in the outer extremity of the cavity against the walls thereof and having in its inner surface one or more longitudinally extending grooves registering with the grooves of the crown, a securing post located at one of its ends in the band and having a portion within the cavity tapered from its inner end towards the inner end of the band.

1,418,071. WELDED JOINT. CHESTER F. GAILOR, Brooklyn, N. Y. Filed July 16, 1921. Serial No. 485,251. 25 Claims. (Cl. 238—164.)



2. A structure comprising two aligning members and a plate bridging the joint between them and having central and end portions welded to said members and unwelded connecting portions between such central and end portions, said connecting portions being bent laterally.

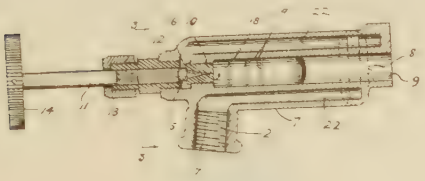
1,418,072. COMBINATION CARBONATOR AND DISPENSING BARREL. ARCH B. GREEN, San Francisco, Calif., assignor of one-half to U. G. Walker, San Francisco, Calif. Filed Aug. 24, 1921. Serial No. 495,022. 4 Claims. (Cl. 225—21.)



1. A combination carbonator and dispensing barrel, comprising a dispensing barrel and a carbonator disposed therein, said carbonator including a tank, means for passing water through the same, means for carbonating the same

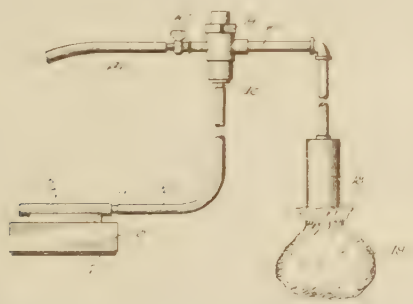
by agitation and percolation, and means manipulated from the outside of the barrel for controlling the intake and outlet ports for the water.

1,418,073. FUEL VALVE. PHILIP H. GUNDERMANN, Chicago, Ill. Filed Mar. 3, 1921. Serial No. 449,556. 3 Claims. (Cl. 158—53.)



3. In combination, a casing having a combustion chamber, a fuel passage in said casing adjacent said chamber, a valve seat having an opening therein connecting said passage with said chamber, said valve seat comprising a plug removably secured in said casing, a valve for closing the opening in said seat and provided with a stem extending through said casing, and removable means for supporting said stem in said casing, said supporting means being arranged when removed to provide an opening in said casing through which said valve seat plug may be removed.

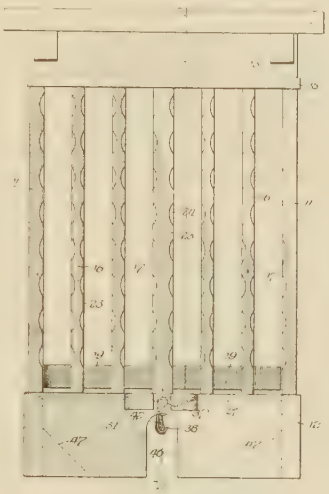
1,418,074. ELECTROTYPING-CASE POLISHER. ORA DWANE HARDEN, Chicago, Ill., assignor, by mesne assignments, of one-half to Charles E. Summers, Chicago, Ill. Filed Mar. 11, 1921. Serial No. 451,646. 2 Claims. (Cl. 91—75.)



1. In a device of the character described, the combination of a brush having a back with a body of bristles connected thereto; a row of centrally disposed tubes extending through the back into the body of bristles; a centrally disposed pipe, secured to the back in which the tubes terminate; a yielding airproof housing, extending around the back and around the bristles and terminating above the free ends of the bristles, whereby to draw air and small material particles through the brush bristles when the air in the pipe is attenuated and an aspirator connected to said pipe.

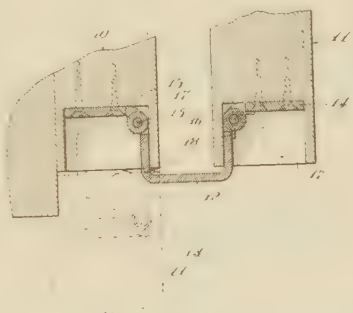
1,418,075. BALL RACK. ERNEST HEDENSKOOG, Muskegon, Mich. Filed Apr. 22, 1918. Serial No. 229,901. 7 Claims. (Cl. 46—6.)

1. A ball rack, comprising a casing providing a plurality of channels in which the balls may repose, a discharging device, a support for a receptacle beneath said device and means comprising a notched locking bar and a pivoted member normally engaged in the notch of said bar and removable therefrom by positioning the receptacle on said



support for preventing the operation of said discharging device until arrangement is made for the disposition of the discharged balls.

1,418,076. HINGE. ALBERT S. HEDSTROM, Oak Park, Ill. Filed Sept. 26, 1921. Serial No. 503,127. 4 Claims. (Cl. 16—163.)

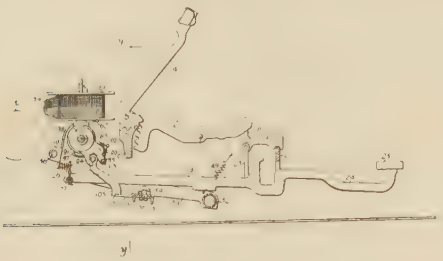


3. A hinge comprising an intermediate member in the form of a channel, supporting members pivotally connected with the ends of the arms of the channel, and a coiled spring having a plurality of turns about the pivot pin upon which one of said supporting members is mounted on said intermediate channel member, said spring having a bearing on both of said members for producing a tendency for the supporting member to stand at one of the limits of its motion with respect to the channel member.

1,418,077. TYPEWRITING MACHINE. JOSEPH B. HOLDEN, Syracuse, N. Y., assignor to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Original application filed Mar. 2, 1920, Serial No. 362,675. Divided and this application filed Jan. 5, 1921. Serial No. 435,221. 2 Claims. (Cl. 197—151.)

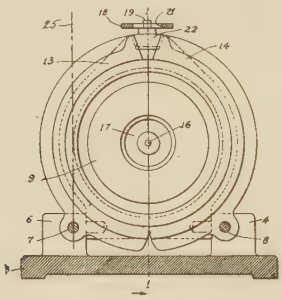
1. The combination of a block 70 having a reduced bearing 72 and a still further reduced threaded part 68, a gear 73 journaled on said bearing, a post 65, 67 screwed onto

said part 68 and having mounted thereon a ribbon spool which is operatively connected with said gear 73, and a



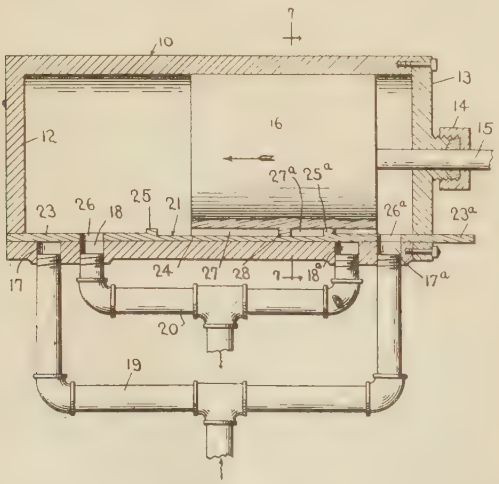
drive shaft 85 journaled in said block 70, and having a pinion 86 adapted to drive said gear 73.

1,418,078. CASTING APPARATUS. THEODORE A. HORTON, New York, N. Y. Filed July 23, 1919. Serial No. 312,799. 8 Claims. (Cl. 22—153.)



1. In casting apparatus the combination of two pairs of opposite pivoted members, each pair disposed at right angles to the other pair, one pair of said members closing into coactive engagement and the other pair closing into coactive engagement with the first mentioned pair, respectively, each of said members of each pair having its center of gravity between a vertical plane through its pivotal axis and that face thereof which coacts with another one of the members.

1,418,079. STEAM CYLINDER. GEORGE R. HUFF, Sasakwa, Okla., assignor of one-fourth to Harry H. Diamond and one-fourth to Charles L. Orr, both of Holdenville, Okla. Filed July 23, 1921. Serial No. 487,127. 2 Claims. (Cl. 121—129.)

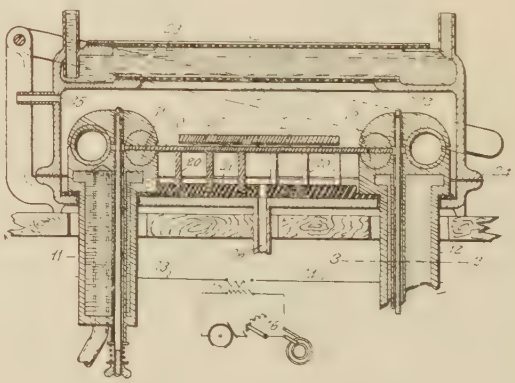


1. In an engine, a cylinder having intake and exhaust ports therein, a piston operating in the cylinder, a valve slidably mounted within the cylinder and controlling the intake and exhaust ports, said pistons having pockets formed therein, stops formed upon the valve for sliding movement within the pockets, and an abutment formed upon the piston between the pockets for engagement with the stops and actuating the valve.

1,418,080. DRILL FEEDING MECHANISM. HARRY C. JOHANSEN, Chicago, Ill., assignor to Sullivan Machinery Company, a Corporation of Massachusetts. Filed Apr. 17, 1918. Serial No. 229,163. 44 Claims. (Cl. 255—22.)

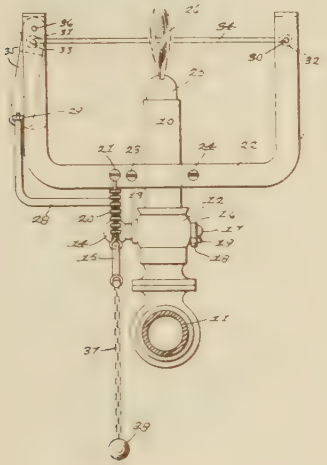
1. In a drilling apparatus, a drive rod, means for simultaneously rotating said rod and moving it longitudinally, and means for moving said rod longitudinally independently of its rotation, said means being each operable independently of the other or operable simultaneously to augment the rate of said longitudinal movement.

1,418,081. ALLOY AND PREPARATION OF THE SAME FOR CONTACT BODIES AND IGNITION POINTS. CLEMENS A. LAISE, Weehawken, N. J. Filed May 2, 1921. Serial No. 466,337. 9 Claims. (Cl. 75—1.)



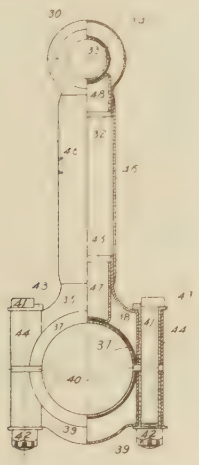
1. An alloy containing about 87 to 97 per cent by weight of tungsten, about 10 to 3 per cent of molybdenum, and not more than one per cent yet a substantial amount of vanadium.

1,418,082. AUTOMATIC SAFETY GAS SHUT-OFF. ISIDOR B. LASKOWITZ, New York, N. Y. Filed May 20, 1921. Serial No. 471,214. 3 Claims. (Cl. 67—116.)



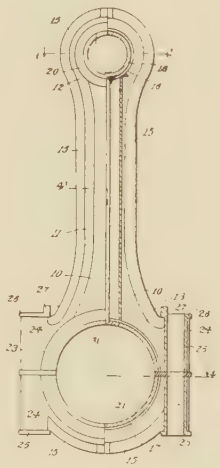
1. In a device of the character described including a thermostatic rod, in combination with a gas fixture and a valved burner, a mantle having its lower metal socket longitudinally slotted for the reception of said thermostatic rod, substantially as described and for the purpose set forth.

1,418,083. CONNECTING ROD. HEBRON B. LAYMAN, New York, N. Y., assignor to The Layman Pressed Rod Company, Inc., New York, N. Y., a Corporation of New York. Filed Apr. 5, 1916. Serial No. 88,989. 2 Claims. (Cl. 74—17.)



1. A multi-part connecting rod shell including a shank, an independent sheet metal member apertured to receive a wrist pin, and having a lining within said aperture and means connecting the lining with the shank, whereby the thrust of the wrist pin may be transmitted to the shank independent of the head member.

1,418,084. CONNECTING ROD. HEBRON BERNARD LAYMAN, New York, N. Y., assignor to The Layman Pressed Rod Company, Inc., New York, N. Y., a Corporation of New York. Filed Dec. 7, 1916. Serial No. 135,603. 14 Claims. (Cl. 74—17.)

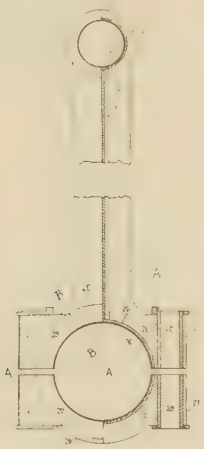


12. A connecting rod having a plurality of abutting parts, each of said parts having a shank portion and smaller and larger end portions, and inwardly extending cuff portions upon the said end portions, and a reinforcing member within the shank portion and abutting at its end against the aforesaid cuff portions to stiffen the shank portion and the junctions of the shank and end portions.

1,418,085. CONNECTING ROD. HEBRON BERNARD LAYMAN, New York, N. Y., assignor to The Layman Pressed Rod Company, Inc., New York, N. Y., a Corporation of New York. Filed Apr. 3, 1917. Serial No. 159,398. 36 Claims. (Cl. 74—17.)

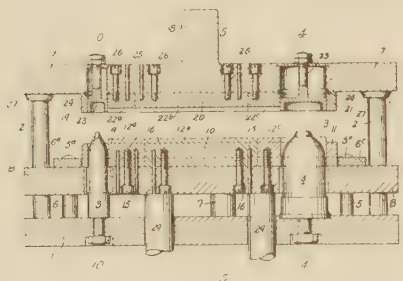
2. A connecting rod shell having an apertured end provided with a pin boss; said boss composed of flanged cuffs secured to the sides of the rod shell and around the aperture, and a liner bushing secured to and uniting the said flanged cuffs.

1,418,086. CONNECTING ROD. HEBRON BERNARD LAYMAN, New York, N. Y., assignor to The Layman Pressed Rod Company, Inc., New York, N. Y., a Corporation of New York. Filed Apr. 12, 1917. Serial No. 161,399. 12 Claims. (Cl. 74—17.)



1. A connecting rod having a shell comprising a plurality of flat sheet metal plates, and means spacing and joining said plates at their end portions.

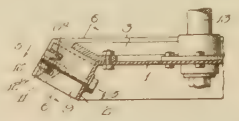
1,418,087. METHOD OF MANUFACTURING SHEET-METAL CONNECTING RODS. HEBRON B. LAYMAN, New York, N. Y., assignor to The Layman Pressed Rod Company, Inc., New York, N. Y., a Corporation of New York. Filed Apr. 11, 1918. Serial No. 228,004. 5 Claims. (Cl. 29—156.5.)



1. The method of forming a sheet metal connecting rod, link, lever or the like, embracing cutting out a blank to the desired form and involving a shank portion and end portions, cutting holes of the desired form in the said end portions, and providing bosses in the end portions by "spreading" the said holes.

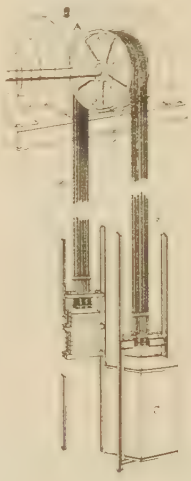
1,418,088. BROOM FOR SWEEPERS. MOSES VOLNEY LIDDELL, Mattituck, N. Y., assignor to Austin Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed May 27, 1920. Serial No. 384,527. 7 Claims. (Cl. 15—180.)

1. In a broom, a circular base having outwardly and downwardly presented flanges forming an outwardly presented annular seat, segmental splint carriers adapted to fit in said seats, and bolts located between opposed



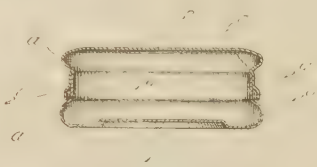
ends of splint carriers and drawing said splint carriers by their said ends into said seat.

1,418,089. SPRING CABLE HITCH. DAVID L. LINDQUIST, Hartsdale, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed June 18, 1919. Serial No. 305,142. 8 Claims. (Cl. 187—1.)



5. In a traction elevator, the combination of a grooved driving sheave, hoisting ropes for the car and counterweight in the grooves, the car and counterweight, hung from the ropes, and a multi-cored swivel plate, hooks securing the swivel plate to the car, and permitting rotation of the plate, the top weight of the counterweight being also multi-cored, rods in the cores in the plate and top weight of the counterweight, with their free ends threaded and projected below the plate and counterweight, one end of the rods secured to the ropes, and springs on the free ends of the rods beneath the plates and counterweight, and nuts beneath the springs threaded on the end of the rods, whereby the effective length of the leads of the ropes is equalized.

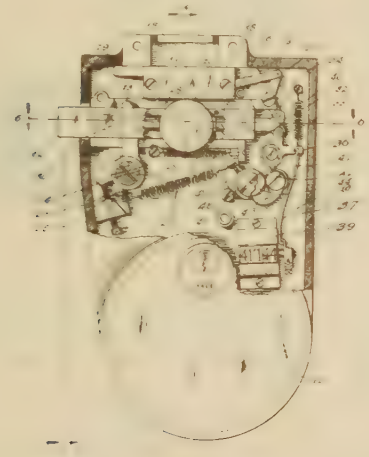
1,418,090. COVERED BOX. ALBERT J. MATTER, Merrimac, Mass., assignor, by mesne assignments, to Geo. J. Kelly, Inc., Lynn, Mass., a Corporation of Massachusetts. Filed Aug. 28, 1919. Serial No. 320,448. 1 Claim. (Cl. 220—24.)



A box comprising a body and cover fitting together as described, said cover having an expansion flare construc-

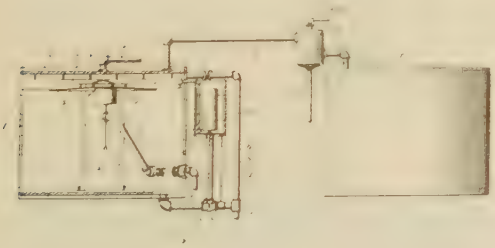
tion by which its fit upon the box-body may be loosened through pressure, said box-members provided with radially-projecting shields, respectively above and below the flare or flares.

1,418,091. COIN-CONTROLLED LOCK. DONALD C. MORGAN, Indianapolis, Ind., assignor to American Sanitary Lock Co., Indianapolis, Ind., a Corporation of Indiana. Filed Oct. 29, 1920. Serial No. 420,338. 18 Claims. (Cl. 194—74.)



15. In a coin-controlled lock, the combination of a withdrawable bolt having a coin slot through it, and means arranged to cooperate with a coin in said coin slot for actuating the bolt, said means extending longitudinally of the slot and being of greater thickness than the coin slot and projecting out of the plane of the coin slot on either side thereof.

1,418,092. APPARATUS FOR WASHING OUT AND REFILLING BOILERS. SPENCER OTIS, Chicago, Ill., assignor to National Boiler Washing Company, Chicago, Ill., a Corporation of Maine. Filed May 15, 1919. Serial No. 297,220. 16 Claims. (Cl. 183—3.)

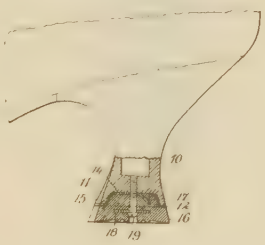


1. A boiler blow off and wash-out system comprising a tank having a single compartment in which it receives and separates steam, water and sludge, means delivering steam, water and sluge from locomotives, directly and collectively to said tank, means conveying away steam from the top of said tank, means conveying away sludge from the bottom of said tank, and means drawing off wash-out water from the upper portion of said tank below the water level therein.

1,418,093. GOLF-CLUB CARRIER. ROBERT S. PARMATER, Elkhart, Ind. Filed June 20, 1921. Serial No. 479,109. 8 Claims. (Cl. 150—1.5.)

1. In a portable golf club holder, in combination, a base element; an upright hollow frame element mounted on the base element; a ball chamber within said frame element; and a manually operative device for discharging a ball from said chamber.

1,418,094. SHOE HEEL. JOSEPH M. RANKO, New York, N. Y. Filed Mar. 31, 1921. Serial No. 457,175. 5 Claims. (Cl. 36—40.)

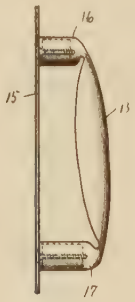


1. The combination with a heel body having a non-circular socket or recess in the under surface, of a lift having a top or backing plate having its peripheral edge substantially coinciding with the outer surface of the heel body and provided with a raised portion substantially fitting said recess, a composition layer secured to said plate, a stiffening plate smaller than said raised portion and spaced therefrom within said composition, said plates having central registering apertures, and an attaching screw extending into the heel body and having its head within the composition, below said stiffening plate.

1,418,095. HANDLE AND METHOD OF MAKING SAME. SOREN RINGER, Chicago, Ill. Filed June 25, 1920. Serial No. 391,845. 6 Claims. (Cl. 29—148.2.)

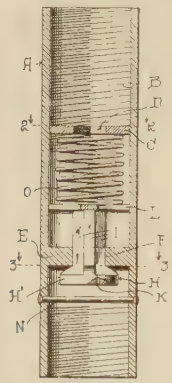
1. A handle, comprising a continuous tubular member having its ends bent to project in parallelism and at right angles to the plane of the face of the object to

which the handle is adapted to be attached, and a wooden plug in each tubular end, the member being



bent adjacent the inner end of each plug to hold the plug in position.

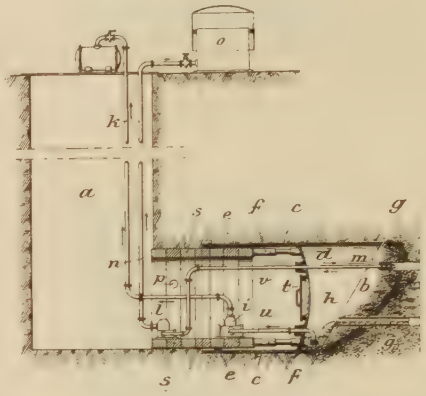
1,418,096. SAFETY VALVE FOR FLUID-PRESSURE PIPES. WILLIAM B. ROYER, Baltimore, Md., assignor of one-half to David E. Shriver, Baltimore, Md. Filed Aug. 11, 1919. Serial No. 316,671. 1 Claim. (Cl. 137—152.)



A safety device for fluid pressure conduits comprising a cylindrical casing having a constricted integral valve seat therein, a valve proportioned to seat in said valve seat and having a stem inserted therethrough axially of the casing, a spider carried rigidly by the stem upon the side of the seat opposite the valve and slidable with the extremities of its legs in contact with the interior of the casing, a spring bearing directly upon the spider, and a disk having a central passage bearing upon the spring opposite the spider and adjustable longitudinally of the casing.

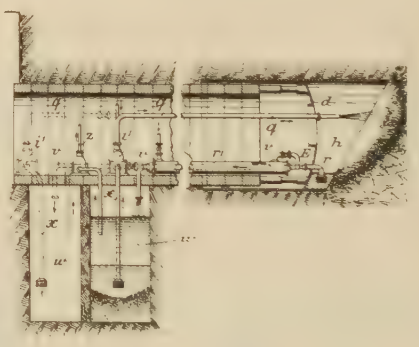
1,418,097. MINERAL-OIL AND CARBOHYDROGEN-GAS EXTRACTING PROCESS. GOTTFRIED SCHNEIDERS, Berlin-Friedenau, Germany, assignor to Aktiengesellschaft "Eos," Glarus, Switzerland. Filed Sept. 2, 1919. Serial No. 321,275. 5 Claims. (Cl. 262—1.)

1. The process of extracting mineral oil and carbohydrogen gas from oil deposits which process consists in making a passage through the porous, bituminous and gaseous deposit with the aid of an air-dam that is shifted into the deposit and that, being air-tight, prevents dangerous gases and the oil from entering the passage, and



in removing the gas and oil from the deposit by means arranged in a space separated from the gaseous deposit by the said air-dam.

1,418,098. MINERAL-OIL AND CARBOHYDROGEN-GAS EXTRACTING PROCESS. GOTTFRIED SCHNEIDERS, Berlin-Friedenau, Germany, assignor to Aktiengesellschaft "Eos," Glarus, Switzerland. Original application filed Sept. 2, 1919, Serial No. 321,275. Divided and this application filed Aug. 15, 1921. Serial No. 492,486. 3 Claims. (Cl. 262—1.)

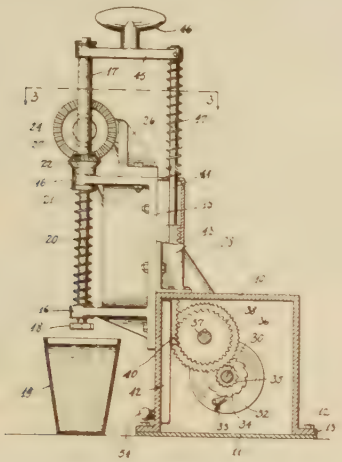


1. The process of removing oil-bearing sand from its deposit and of simultaneously subjecting it to an oil separating treatment consisting in dislodging the sand from its deposit by a jet of fluid so that by the action of the jet and by the friction set up between the grains of sand, said grains are freed of the bitumen which adheres to them.

1,418,099. MALTED MACHINE. SOLOMAN SIGAL, Brooklyn, N. Y. Filed July 15, 1921. Serial No. 484,901. 9 Claims. (Cl. 259—135.)

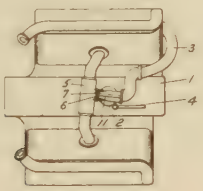
1. A device of the class described, comprising a vertical shaft mounted for rotative and longitudinal movement, a

paddle fixed thereto, a motor spring, a drive connection between said spring and shaft, and means connecting the



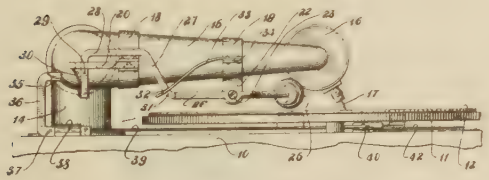
spring and shaft whereby longitudinal downward movement of said shaft winds said spring.

1,418,100. CARBURETOR. HOWARD B. SIMMONS, Toledo, Ohio. Filed Apr. 12, 1917. Serial No. 161,509. 18 Claims. (Cl. 123—55.)



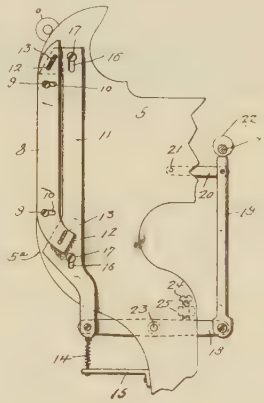
1. In a device of the class described, the combination with an intake manifold connected to both sides of a twin motor; of a carburetor connected to said manifold; a partition in said manifold opening for dividing the mixture of air and fuel from the carburetor and directing it to both sides of the motor; and means for supplying auxiliary air to the manfold opening on either side of said partition.

1,418,101. PHONOGRAPH ATTACHMENT. PETER SIMON, Elizabeth, N. J. Filed July 16, 1919. Serial No. 311,150. 2 Claims. (Cl. 274—15.)



1. A means for automatically returning the sound box and stylus of phonographs to inactive position, comprising a rubber roller, an arm secured to the tune arm of the phonograph carrying said roller, a guide provided with an opening and secured to said tune arm, a flat detent spring adapted to normally engage below the extreme end of said guide beyond the opening therein to hold one end of said arm in its lowered position and to raise its other end carrying said roller, and an adjustable bar adapted to engage said spring at the end of a record, for allowing it to move upwardly through the opening of said guide to lower said roller into engagement with the record plate at an angle thereto for returning the sound box and stylus into inactive position.

1,418,102. PRINTING-PRESS ATTACHMENT. GEORGE K. SINCLAIR, Louisville, Ky. Filed Oct. 8, 1921. Serial No. 506,415. 4 Claims. (Cl. 101—362.)

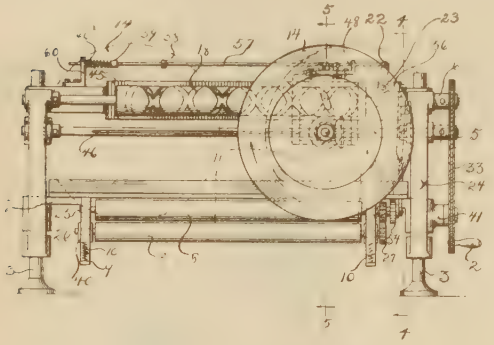


1. The combination with the bed of a printing press and the back-shaft of the press; of guide rails positioned alongside and parallel to the inking roller guide edges of the bed, and normally flush with said edges, supports on the bed for said rails, reciprocatory shifter bars carried by the bed, connections between the bars and the rails for projecting the latter from the guide edges, levers carried by the bed and connected to the shifter bars for operating the same, set screws carried by the bed and engageable with the levers, pitmen connected to the levers, and means on the back-shaft for operating the levers.

1,418,103. GLOVE. JOHN ANTHONY SMITH, Spokane, Wash., assignor to Thumthum Products, Inc., Spokane, Wash. Filed Apr. 9, 1918. Serial No. 227,436. 1 Claim. (Cl. 2—9.)

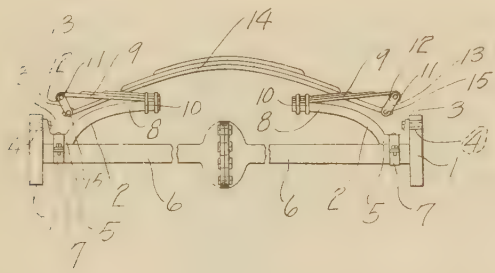
A glove having two thumbs, one on each side of the body of the glove, the two being oppositely disposed, and means for externally and positively fastening the thumb in a doubled position, such means comprising a fastener having a part secured to the outer surface of the inner end of the thumb and a co-operating part secured to the outer surface of the outer end of the thumb.

1,418,104. SLICING MACHINE. LOUIS SPISELMAN, Brooklyn, N. Y. Filed Nov. 14, 1921. Serial No. 514,891. 9 Claims. (Cl. 17—24.)



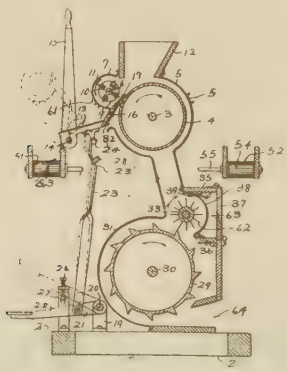
1. In a machine for slicing fish, means for engaging the skin of the said fish and feeding the same, and cutting means adapted to cut the flesh of the said fish into slices and means for operating the said cutting means, so that the skin of the said fish is substantially untouched.

1,418,105. SHOCK ABSORBER FOR AUTOMOBILES. THOMAS A. STUDDARD, Carbon Hill, Ala. Filed Jan. 7, 1922. Serial No. 527,534. 1 Claim. (Cl. 267—45.)



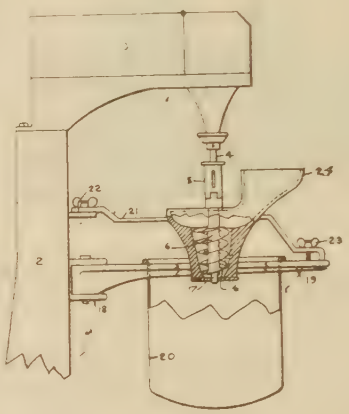
A shock absorber for automobiles, comprising a bifurcate, arcuate arm having a shank portion secured to the axle housing and flange; and leaf springs secured at their inner ends to the ends of the forks of the arm and having their outer ends swingingly connected to the end of the ordinary spring.

1,418,106. COTTON GIN. EDWARD R. TISCHER, Houston, Tex., assignor of forty per cent to Gus Emmert, Harris County, Tex. Filed Mar. 16, 1920. Serial No. 366,251. 10 Claims. (Cl. 13—7.)



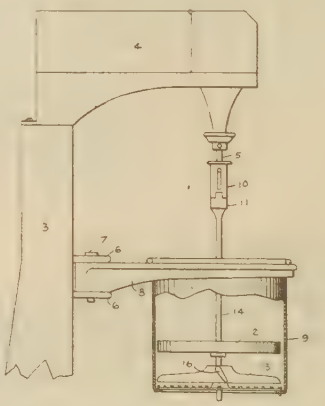
1. A cotton gin including a casing, a ginning roller rotatably mounted therein, a stripping roller arranged to cooperate with the ginning roller, loosely mounted fingers carried by the stripping roller, a shoe arranged in tangential relation to the ginning roller and provided to arrest seed cotton carried into contact with it by the ginning roller to permit the fingers of the stripping roller to operate against said cotton to strip the seed from the lint thereof.

1,418,107. FOOD MACHINE. JOSEPHINE TRUST and HENRY TRUST, Park Ridge, N. J., assignors, by mesne assignments, to Meteor Mixing Machine Co., Inc., a Corporation of New York. Filed Sept. 18, 1919. Serial No. 324,604. 1 Claim. (Cl. 17—20.)



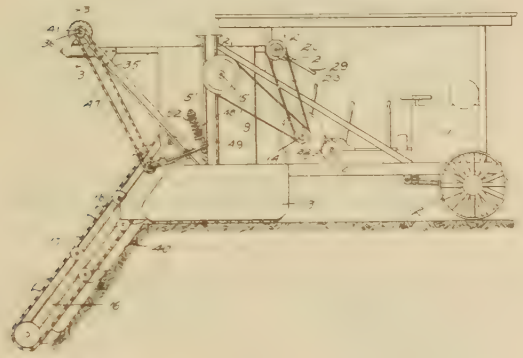
In a machine of the class described, power and transmission mechanism at the top thereof, and a tool spindle depending therefrom, a food machine beneath said spindle having a worm feed in axial alignment with said spindle, and a hopper at one side of said spindle for feeding said food machine, and in combination therewith a removable pail beneath said food machine, and brackets extending from said mechanism for retaining said food machine and pail in position.

1,418,108. FOOD MACHINE. JOSEPHINE TRUST and HENRY TRUST, Park Ridge, N. J., assignors, by mesne assignments, to Meteor Mixing Machine Co., Inc., a Corporation of New York. Filed Sept. 18, 1919. Serial No. 324,606. 1 Claim. (Cl. 146—9.)



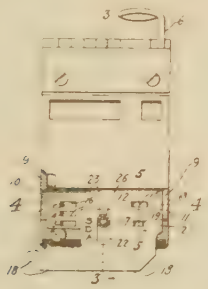
In a machine of the class described, a vertical spindle and means for detachably securing a tool shaft therein, means for retaining a receptacle beneath said spindle, means for immovably retaining a grater in the bottom of said receptacle, a feeder upon said spindle, a weight above said feeder for feeding material to said feeder, and said feeder having blades pitched at an angle so as to press material in the direction of said grater, and said grater adapted to provide bearing for said tool shaft.

1,418,109. DIGGING MACHINE. GEORGE A. VAUGHN and CHARLES E. STAHL, Newton, Iowa, assignors to The Parsons Company, Newton, Iowa. Filed July 16, 1921. Serial No. 485,279. 8 Claims. (Cl. 37—24.)



4. In a machine of the class described, the combination of a main frame, a boom pivotally supported at one end on said frame carrying digger devices arranged to travel in an endless path, an adjustable supporting element for said boom and a yielding device for yieldingly preventing upward swinging movement of said boom.

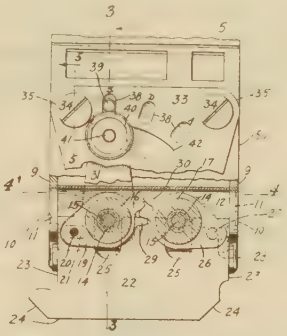
1,418,110. CALCULATING MACHINE. JOHN C. WAHL, Chicago, Ill., assignor to Remington Accounting Machine Corporation, New York, N. Y., a Corporation of New York. Filed Apr. 19, 1921. Serial No. 462,621. 4 Claims. (Cl. 235—59.)



1. In a calculating machine, the combination of a carriage, a follower forming part of a totalizer-actuator control-mechanism, a carrier adjustable to different positions along the carriage, a plate carried by said carrier and having a cam co-operative with said follower during the travel of the carriage to automatically shift said follower, and means for affording an adjustment of said plate on its carrier to different set positions and for holding it in any of said positions, said means comprising a threaded stud secured to the carrier and passing freely through a slot with closed ends in said cam plate to permit an adjustment of the plate relatively to the stud but to limit the extent of such adjustment and prevent the plate from dropping from the stud and being accidentally detached from the machine, and a thumb screw on said stud to aid in holding the cam plate in its adjusted position.

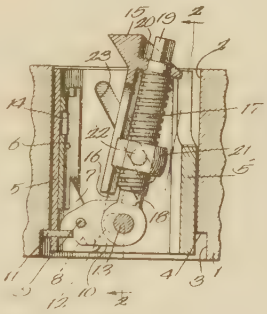
1,418,111. CALCULATING MACHINE. JOHN C. WAHL, Chicago, Ill., assignor to Remington Accounting Machine Corporation, New York, N. Y., a Corporation of New York. Filed Apr. 19, 1921. Serial No. 462,622. 12 Claims. (Cl. 235—59.)

8. In a calculating machine, the combination of a carriage, a follower forming part of a totalizer-actuator control mechanism, a carrier on said carriage, a cam adjustable on said carrier and co-operative with said follower, two adjusting levers operatively connected with said cam at different points in the length of the latter, and hand-



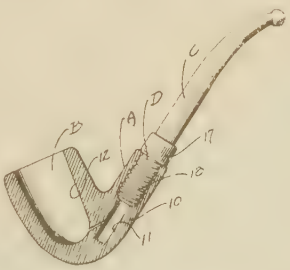
controlled means for effecting the adjustment of said levers and including means for compelling them to move in unison.

1,418,112. PRINTING-ELEMENT HOLDER. HERRIOTT S. WARNOCK, Chicago, Ill. Filed Nov. 3, 1921. Serial No. 512,419. 12 Claims. (Cl. 101—385.)



1. A printing element holder including a hollow carrier; a clamping jaw upon the carrier and having a stem within and in pivotal connection with the carrier; and mechanism serving to turn the jaw and having complemental elements in sliding engagement, one of these elements being upon the carrier and the other assembled with the clamping jaw.

1,418,113. PIPE, CIGAR, AND CIGARETTE HOLDER. JOHN WAWRICKA, New York, N. Y. Filed Mar. 8, 1920. Serial No. 364,229. 4 Claims. (Cl. 131—12.)

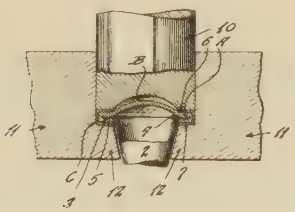


1. In an attachment for smoking appliances, a coupling for the tobacco holding portion thereof and a bit, said coupling including a socket for the reception of the bit, and a sleeve adapted to fit in the bore of a tobacco holding portion, said bore having a shoulder formed therein interme-

diate its ends, a smoke filter including a tubular casing arranged to fit in the sleeve of the coupling members, absorbent material arranged in the casing, crossed wires carried by one end of the casing and adapted to be detachably associated with the sleeve of the coupling, the outer end of the casing engaging said shoulder of said bore of the device when assembled in position to prevent accidental displacement thereof.

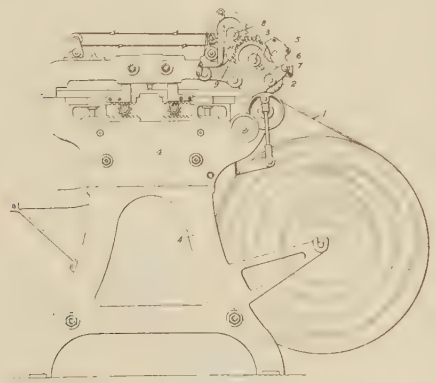
2. A new article of manufacture comprising a tubular casing, absorbent material arranged in the casing, and crossed wire members having the ends thereof inserted in one terminal of the casing.

1,418,114. METHOD OF SEALING CONTAINERS. FREDERICK WESTERBECK, St. Louis, Mo. Filed May 27, 1920. Serial No. 384,556. 4 Claims. (Cl. 113—116.)



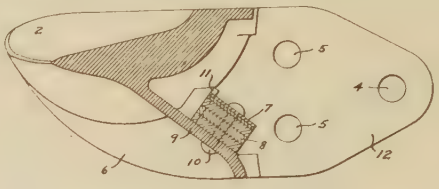
1. The method of sealing containers which includes forming each of said containers with a closure-receiving flange having a raw edge, placing a soft metal closure member on said closure-receiving flange, locating a relatively firm thrust-receiving ring on said soft metal closure member whereby a portion of said soft metal closure member is confined between said relatively firm thrust-receiving ring and the raw edge of said closure-receiving flange, and then expanding said closure-receiving flange to imbed its raw edge in said soft metal closure member.

1,418,115. PROCESS OF AND MACHINE FOR CUTTING SHEET MATERIAL. SETH WHEELER, Castleton, N. Y. Filed Mar. 6, 1918. Serial No. 220,758. 11 Claims. (Cl. 164—68.)



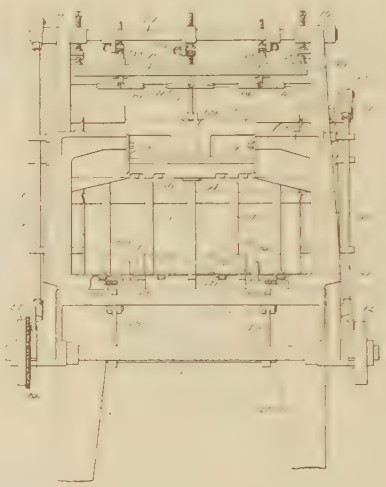
2. The method of cutting sheet material which comprises feeding forwardly a web of sheet material at a substantially uniform rate, piercing portions of the web by a cutter to at least partially sever the same, and then moving the cutter in the direction of the feed at a speed sufficiently greater than the rate of feed of the web to push forward the cut portion of the web and separate the same completely from the remainder of the web.

1,418,116. WATER WHEEL. WILLIAM MONROE WHITE, Milwaukee, Wis. Filed Jan. 17, 1921. Serial No. 437,780. 14 Claims. (Cl. 253—136.)



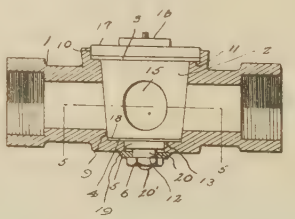
1. A water wheel bucket having a pocket formed to permit addition or removal of weights to balance the water wheel.

1,418,117. FEEDING DEVICE FOR SLITTERS. MAGNUS E. WIDELL, Maywood, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 13, 1919. Serial No. 323,556. 24 Claims. (Cl. 271—55.)



1. An automatic feed for a slitter for cutting metal sheets and between which the sheets are fed across a bed, comprising in combination a holder for a stack of sheets and sheet blanks, means for removing a sheet from said stack and depositing it by gravity into feeding position upon the bed, and a two motion feed automatically engaging said sheet and advancing it progressively into engagement with said cutter, and means for delivering sheets successively from said holder to an element of said two-motion feed and in a forward direction opposite to the rearward direction of feeding.

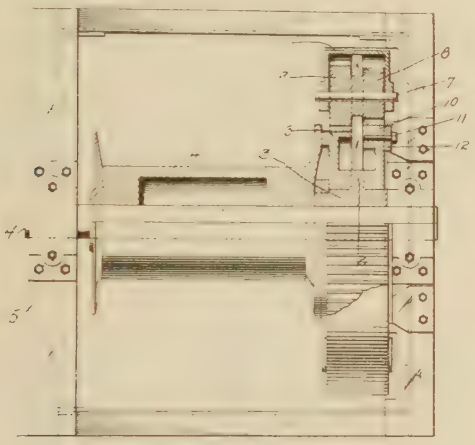
1,418,118. STOP COCK. CHARLES H. WISE, Oil City, Pa. Filed Jan. 8, 1921. Serial No. 435,885. 3 Claims. (Cl. 251—91.)



1. The herein described stop cock comprising a casing body having diametrically opposite ports and a taper bore extending at right angles to and between the ports and

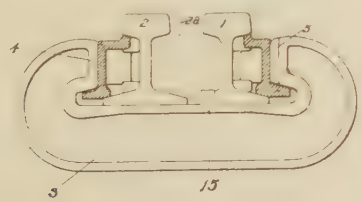
having an enlargement at one end and a reduced portion at its opposite ends, forming interior abutments, packing washers arranged in the bore and against said abutments, a taper plug arranged in the taper bore of the casing body and having a diametrical aperture in the same plane as said ports and also having a flange adjacent to one end and an angular portion at said end and further having a spindle and reduced portions thereon, one of the reduced portions being threaded, a metallic nut keyed on one reduced portion of the spindle and bearing against the casing body, and a nut mounted on the threaded portion of the spindle.

1,418,119. STUMP PULLER. KARL C. WOLCOTT, Florahome, Fla. Filed Mar. 25, 1920. Serial No. 368,593. 2 Claims. (Cl. 74—34.)



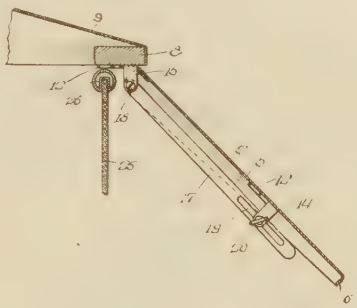
1. In a stump pulling device, a spoked driver adapted to receive power at its periphery, inwardly extending ears carried by the driver in juxtaposition to the spokes, a fixed gear on one side of the spokes and a revoluble drum on the other side of the spokes, the drum provided with gear teeth, planet pinions in pairs, each member of a pair integrally joined with the other member with a reduced diameter between the members of the pair, the pinions carried by the ears with the spokes extending into the channel made by the reduced portion, one of the pinions of each pair co-meshing with the fixed gear and the other of the pinions co-meshing with the teeth of the drum.

1,418,120. GUARD-RAIL CLAMP. EMIL CARL ZIMMERMAN, New York, N. Y., assignor to Q & C Company, New York, N. Y., a Corporation of Maine. Filed Mar. 24, 1920. Serial No. 368,210. 2 Claims. (Cl. 238—21.)



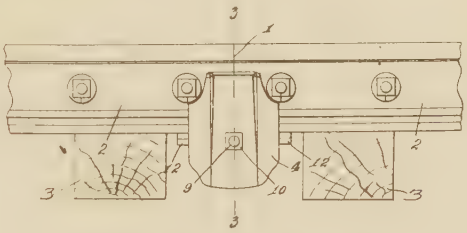
1. A rail clamp comprising a clamp bar or yoke member having inwardly directed end portions and a shoulder formed thereon upwardly projecting from its upper or rail engaging surface intermediate of said end portions, a wedge member formed with a rail engaging portion and an inclined wedging surface adapted to be interposed between one end of the yoke and a rail for clamping the rail against said shoulder and means for securing said wedge member in assembled position, said shoulder being of substantially the height of the rail base and non-projecting thereover, substantially as described.

1,418,121. STORM PROTECTOR FOR WINDSHIELDS OF AUTOMOBILES. JOSEPH RENÉ AYOTTE, Chicago, Ill. Filed Jan. 31, 1921. Serial No. 441,154. 1 Claim. (Cl. 296—95.)



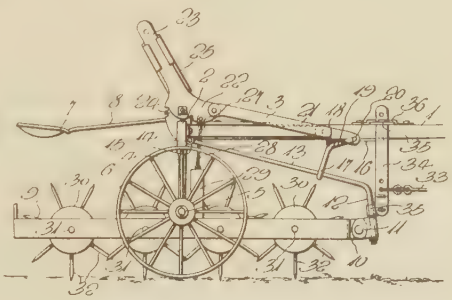
A windshield protector for automobiles, comprising a plate hinged at its top edge to the front cross bar of the automobile top; a bracket attached to said bar; a similar bracket attached to the underside near the lower edge of the plate; a rod pivoted in the upper bracket and slidable in the lower bracket and means to prevent the sliding engagement of the lower bracket and rod to hold the plate in adjusted inclined position.

1,418,122. RAIL CLAMP. DAVIS AMBROSE, Louisville, Ky. Filed Nov. 12, 1921. Serial No. 514,730. 3 Claims. (Cl. 238—191.)



1. In combination with the abutting ends of two railway rails and angle plates connecting the rails; of a clamp comprising two sections constructed to engage the angle plates arranged beneath the bottom of the rails, at the meeting ends of the said rails, means connecting the clamp sections below the rails, and spring influenced wedge members between the clamp sections and the bottom of the rails.

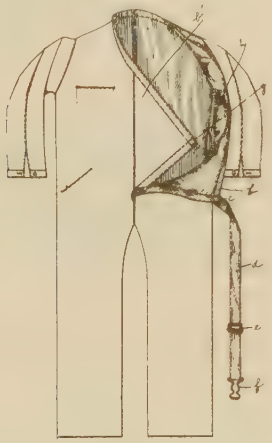
1,418,123. AGRICULTURAL IMPLEMENT. ANDREW AXELTON, Graettinger, Iowa. Filed Dec. 22, 1921. Serial No. 524,214. 5 Claims. (Cl. 55—11.)



1. An agricultural machine comprising a main frame, an auxiliary frame beneath the main frame carrying earth working means, a stirrup carried by the main frame for vertical adjustment, a hanger bar pivotally connected

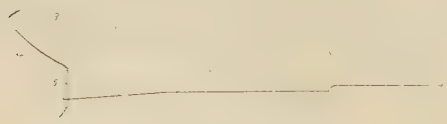
with the main frame and extending forwardly through the stirrup and having its forward end connected with the auxiliary frame, actuating means for adjusting the stirrup, and holding the stirrup in an adjusted position with the hanger bar held at a desired incline, and suspending means connected with the stirrup actuating means and auxiliary frame intermediate the length of the auxiliary frame.

1,418,124. OVERALLS. SAMUEL BERKOWITZ, New York, N. Y., assignor to himself and Benjamin Lubliner, Brooklyn, N. Y. Filed Mar. 9, 1921. Serial No. 450,899. 2 Claims. (Cl. 2—144.)



1. In an overall or the like, the combination of two flaps located at the front of the garment, the said flaps comprising substantially the entire front of the body portion of the garment above the belt line thereof and having their bottoms below the said belt line and ending adjacent the crotch portion of the garment, the ends of said flaps being spaced from the sides of the garment when the garment is in a closed condition, one of said flaps having a belt provided with a fastening device, the side of the garment adjacent the end of the other flap being provided with a slit, the said other flap having complementary fastening means connected thereto, and adapted to be fastened to the first mentioned fastening means.

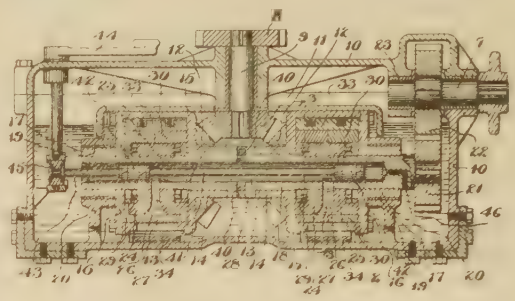
1,418,125. METAL-WORKING TOOL. WILLIAM P. CARROLL, Horton, Kans. Filed Aug. 26, 1921. Serial No. 495,474. 3 Claims. (Cl. 29—95.)



1. A metal working tool of the character described, comprising a body member provided at one end with an upwardly and forwardly projecting finger, and a cutting member at the forward end of said body member, said cutting member having two cutting edges spaced apart at its forward end.

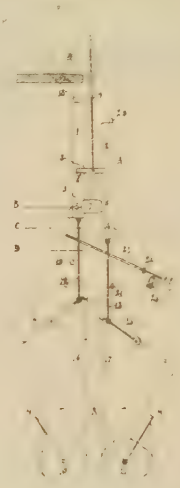
1,418,126. TRANSMISSION MECHANISM. FRANK CARTLIDGE, Claremont, N. H., assignor to Sullivan Machinery Company, a Corporation of Massachusetts. Filed Apr. 18, 1918. Serial No. 229,389. 33 Claims. (Cl. 192—58.)

4. In a transmission mechanism, a rotatable driving member having an eccentric bore, a driven member carrying a blade and disposed therein, means for permitting an escape of fluid through said blade carrying member



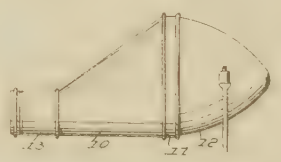
at will, and means for automatically pumping fluid to said blade carrying member through said driving member.

1,418,127. CONTROLLING DEVICE FOR SIGNALS HAVING SEVERAL POSITIONS. VITAL CESAR, Brussels, Belgium. Filed June 28, 1920. Serial No. 392,489. 4 Claims. (Cl. 246—489.)



1. A device to control a railway signal which can be moved to three different positions comprising an entrained part connected with the signal to be moved, two entraining parts moved by distinct levers, fixed stop pieces limiting the displacement of said two entraining parts and suitable connections effective alternately between said entraining parts and the entrained part, in such a manner that each of the entraining parts can, during part of its course, entrain the part connected with the signal, then continue its course after movement of said part has been stopped by connection with the other entraining part.

1,418,128. LAMP ATTACHMENT. AUGUSTUS A. COBB, Marion, Mass. Filed July 14, 1920. Serial No. 396,099. 1 Claim. (Cl. 240—48.4.)



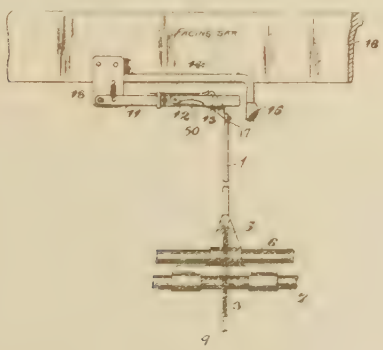
A headlight dimmer attachment having a shell provided with means for attachment to the casing of an automobile headlight, and an outlet sleeve disposed at the

forward end of the shell with its lower wall in the plane of the lower wall of the shell, the outlet sleeve being transversely elongated and the top wall of the shell being inclined downwardly and forwardly and merging with the upper wall of the sleeve.

1,418,129. SELF-MEASURING VISIBLE LIQUID PUMP. DONLEY SAXTON COLLINS, Cedar Rapids, Iowa. Filed Jan. 3, 1920. Serial No. 349,224. 5 Claims. (Cl. 221—99.)

1. In a self measuring and dispensing device for liquids a pair of tanks having means to indicate the quantity of liquid therein, connections with controlling means for permitting supply of liquid to enter either of said tanks, connections for delivering the overflow from either tank to the other, and means associated with the said inlet means to permit the discharge of the contents of either or both of said tanks at will.

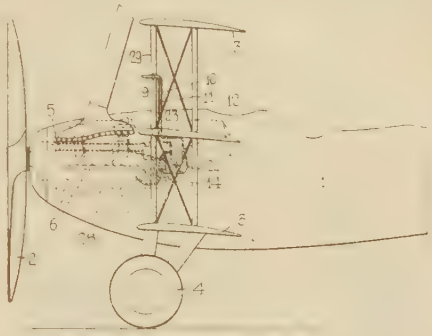
1,418,130. TWIST LACE MACHINE. WILLIAM COOMBES, Hyson Green, Nottingham, England. Filed Jan. 18, 1922. Serial No. 530,159. 12 Claims. (Cl. 96—20.)



1. In a twist lace machine, the combination with carriages and means for moving them backward and forward, of pivotally supported weft thread carriers, traversing means therefor, and means for deflecting the carriers upon their pivots while being traversed, whereby they may pass below the paths of movement of the carriages as the latter move backward and forward.

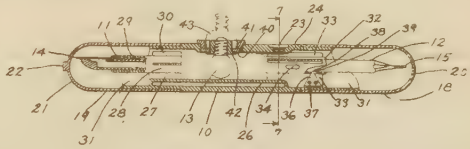
1,418,131. MOTIVE-POWER SYSTEM FOR AIRCRAFT. GLENN H. CURTISS, Garden City, N. Y., assignor, by mesne assignments, to Curtiss Aeroplane and Motor Corporation, Buffalo, N. Y., a Corporation of New York. Filed June 11, 1919. Serial No. 303,502. 5 Claims. (Cl. 244—25.)

1. In a power apparatus for aeroplanes, the combination of an internal combustion engine, a throttle valve therefor, an air velocity device comprising a Pitot tube and a manometer tube, a reversible electric motor operatively



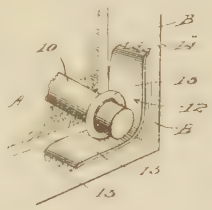
connected with said throttle valve, and electrical energy supply connections leading through said device to said motor for the purpose set forth.

1,418,132. WRITING-LIGHTING DEVICE. JOHN JOSEPH DEVINE, Middletown, Conn. Filed Apr. 24, 1920. Serial No. 376,384. Renewed Apr. 4, 1922. Serial No. 549,471. 6 Claims. (Cl. 240—8.4.)



1. A writing-lighting device having a tubular body that is open at the ends, a writing device projecting from one of the said ends, and a lighting device located within the said body and positioned therein so as to permit the light therefrom to be projected laterally through both of the said open ends.

1,418,133. STAIR-ROD FASTENER. IRVIN W. DIEHL, Duluth, Minn. Filed May 2, 1919. Serial No. 294,134. 3 Claims. (Cl. 16—141.)

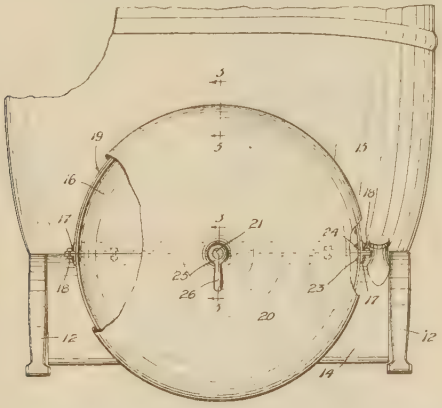


3. In a stair carpet fastening device, the combination with a confining rod, of a pair of fastener elements for said rod each including a spring plate of inherent resiliency to normally maintain the same in flat manner, said plate having a series of sharpened teeth upon each extreme end thereof outturned toward one side of said plate, and a rod retaining ring swivelly connected to the opposite side of said plate in order that the same may rotate around an axis transversely of the plane defined by said plate, said plates being of such resiliency as to permit their attachment in the angle formed by the tread and riser of a stair way, to have the rings thereof mounted for swivelling extending outwardly adjacent the angle formed by said tread and riser, so that said rings may be adjusted into alignment to receive said confining rod.

1,418,134. WHEEL CARRIER. EMIL R. DRAVER, Richmond, Ind. Filed Dec. 31, 1917. Serial No. 209,763. 5 Claims. (Cl. 296—37.)

1. The combination with an automobile body, of a carrying receptacle for extra wheels or rims, comprising

a back plate incorporated as a rigid part of said body, the lower portion thereof being projected below said body, a cover plate detachably applied to said back plate with its lower portion also projecting below the bottom of

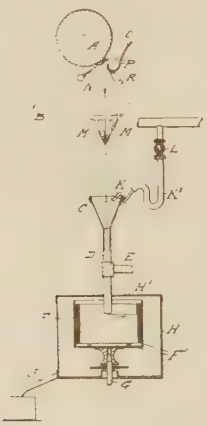


said automobile body, and a cover securing device applied to the central portions of said back plate and cover, that portion of said back plate that is below said securing device being detachable from said body.

1,418,135. MANUFACTURE OF VISCOSE SOLUTIONS. WILLIAM PORTER DREAPER, London, England. Filed Nov. 14, 1921. Serial No. 515,157. 4 Claims. (Cl. 260—100.)

1. The preparation of a xanthate solution by first removing air from a cellulose mass, treating the cellulose mass from which air has been removed with a caustic alkali solution at a temperature of below five degrees and afterwards treating it with carbon disulphide.

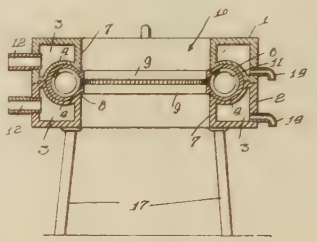
1,418,136. MANUFACTURE OF ARTIFICIAL THREADS OR FILAMENTS. WILLIAM PORTER DREAPER, London, England. Filed Nov. 15, 1921. Serial No. 515,378. 15 Claims. (Cl. 18—54.)



1. A process of spinning precipitated artificial threads, filaments and the like, consisting in that the product of precipitation is subjected to the action of a constantly flowing stream of liquid as it is guided into a receptacle under the action of centrifugal force exerted thereon in such receptacle.

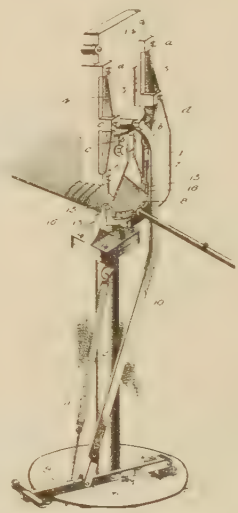
1,418,137. MOLD. WARREN D. DRUSE, Kahoka, Mo. Filed June 14, 1920. Serial No. 388,914. 1 Claim. (Cl. 18—18.)

A device of the class described comprising annular members having heating chambers, the said members including curved walls which cooperate to define a cavity for the reception of a tire casing, the curved walls and the inner walls of the annular members defining relatively sharp edges adapted to be engaged in the grooves between the body of a tire casing and the beads thereof,



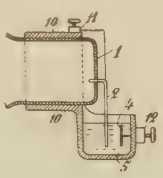
thereby to hold the casing positively in such a position that the beads of the tire casing will be disposed in the central opening of the annular members and out of alinement with the heating chambers.

1,418,138. BROOM TRIMMER. GEORGE W. DUVALL and NORMAN H. BEEBE, Davenport, Iowa, assignors to Modern Broom Machinery Company, Davenport, Iowa, a Corporation of Iowa. Filed Aug. 28, 1918. Serial No. 251,815. 3 Claims. (Cl. 300—17.)



1. The combination with a main frame having a form thereon upon which the broom is adapted to rest, the form flanked by vertically extending lugs, said lugs having vertical grooves at their inner edges, of a head, knives adjustably connected therewith in position to trim the broom to conform substantially with the shape of the form, with their outer edges in position to move vertically in the grooves of the lugs, and means for reciprocating the head.

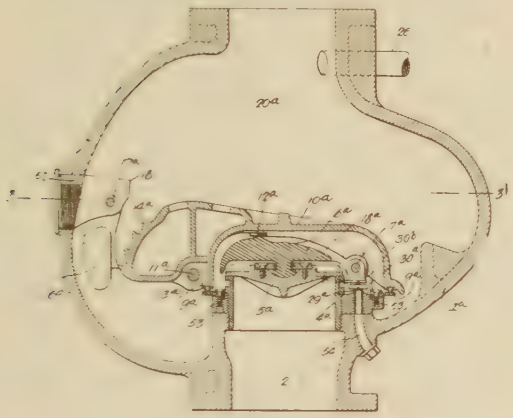
1,418,139. APPLIANCE FOR REGULATING THE HARDNESS OF RÖNTGEN-RAY TUBES. HJALMAR FREDERIK EIKEN, Skorping, Denmark. Filed Jan. 15, 1920. Serial No. 351,698. 1 Claim. (Cl. 250—35.)



A device for controlling the vacuum in a Röntgen-tube comprising an electrolyte-container having a tubular ex-

tension embracing the Röntgen-tube, and an electrode communicating with said tube and extending into said container, the gas liberated from the electrolyte being conducted through said electrode.

1,418,140. DIFFERENTIAL DRY-PIPE VALVE. POWELL EVANS, Philadelphia, Pa., assignor to Globe Automatic Sprinkler Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 7, 1919. Serial No. 336,462. 9 Claims. (Cl. 169—22.)



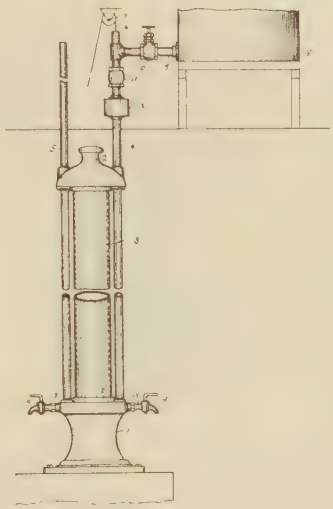
1. An accelerator consisting of a casing having an inlet and an outlet and provided with a closed chamber connected to receive fluid under pressure from the inlet; a normally closed valve between said inlet and outlet; with a member movable under the action of the fluid under pressure in said chamber for opening the valve when the pressure in the inlet falls to a predetermined point.

1,418,141. TRAFFIC SIGNAL. GEORGE W. EWING, Cincinnati, Ohio. Filed May 9, 1921. Serial No. 468,076. 1 Claim. (Cl. 116—47.)

A vehicle signal comprising an elongated rod, brackets to mount said rod for free rotation at one side of a vehicle with its ends projecting beyond the front and the rear of the vehicle body, signal members disposed to operate respectively in the front and rear of the vehicle, brackets to which said signal members are attached, said signal members and last mentioned brackets due to their weight adapted to normally hang vertically and angularly disposed portions on the second mentioned brackets attachable to said rod.

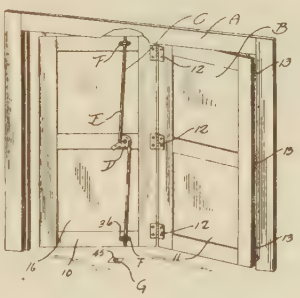
1,418,142. LUBRICATING-OIL DISPENSER. ALFRED R. FENAES and WILLIAM H. KENNEDY, Houston, Tex. Filed Sept. 12, 1921. Serial No. 499,881. 7 Claims. (Cl. 221—67.)

1. An oil dispensing device including a tubular container, a reservoir, a tube leading from the reservoir and entering the bottom of the container and communicating also with the top thereof, and means controlling the flow of fluid through said tube, said means including a valve



seat in the tube, a valve arranged to seat thereon, a float chamber underneath said seat and a float connected to the valve and located in said chamber.

1,418,143. DOOR BOLT. PETER H. FERRIER, Jr., Chicago, Ill. Filed Feb. 23, 1921. Serial No. 447,057. 5 Claims. (Cl. 292—6.)



1. In a door bolt, the combination with a door, of a bolt member provided with a slot extending inwardly upon the longitudinal center thereof, a crank disc centrally pivoted upon said door, said bolt eccentrically pivoted upon said disc in said slot, whereby said bolt will be advanced or retracted upon oscillation of said disc, and a rocking guide member for said bolt.

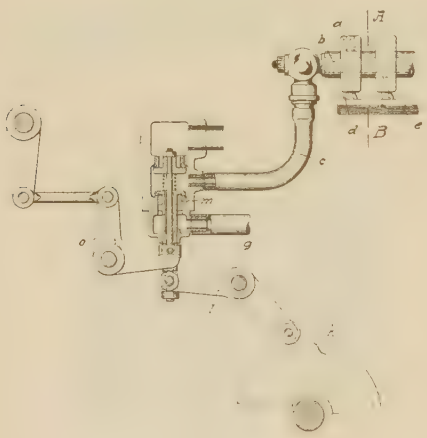
1,418,144. REVERSIBLE SIGN. CHARLES A. FETTERS, Washington, D. C. Filed Aug. 29, 1921. Serial No. 496,366. 1 Claim. (Cl. 40—128.)

A sign comprising a plurality of sign sections, said sections being connected together by pivotally connected U-shaped members, the pivotal points of the U-shaped members being in vertical alignment with each other and located substantially centrally of the sign section, lugs and

depressions carried by the pivotally connected U-shaped members, said lugs and depressions forming means where-

by the sign sections will be maintained in the same vertical plane after a pivotal action of any of the sign sections.

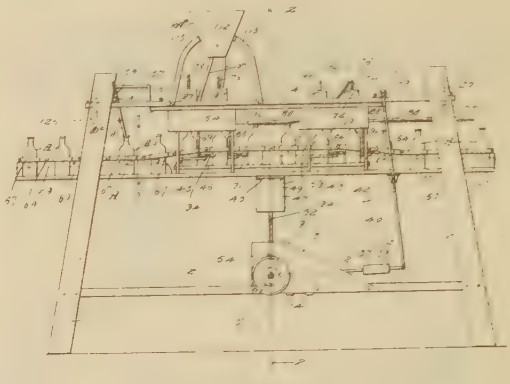
1,418,145. SHEET-FEEDING DEVICE FOR HIGH-SPEED PRINTING PRESSES. JOHANN FISCHER, Augsburg, Germany. Filed Jan. 14, 1922. Serial No. 529,267. 3 Claims. (Cl. 271—26.)



1. In a vacuum feeding device for high speed printing presses including suction and pressure conduits, means for periodically admitting compressed air into the suction conduit for the purpose of effecting a rapid deposit of the sheet from the suction head onto the conveyer device.

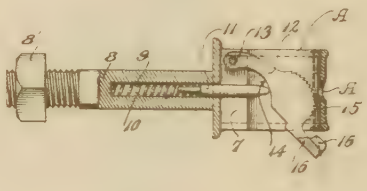
1,418,146. BOTTLE FILLING AND CAPPING MACHINE. EARL C. FOGLE, Elkton, Va., assignor of one-third to Edward C. Martz and one-third to John W. Morrison, both of Harrisonburg, Va. Filed Apr. 22, 1920. Serial No. 375,801. 21 Claims. (Cl. 226—77.)

1. A bottle filling and capping machine comprising a supporting frame, stationary tables mounted in said supporting frame, a vertically movable table beneath said stationary tables, a rocker frame movable longitudinally above said stationary tables, fluid gages arranged in pairs in said stationary tables, gages of one stationary table serving to only partially fill bottles brought into engagement therewith, the gages carried by the remaining stationary table serving to complete the filling operation, means for conveying bottles across said vertically movable table, a main operating shaft, means controlled by said main operating shaft to raise said vertically movable table to



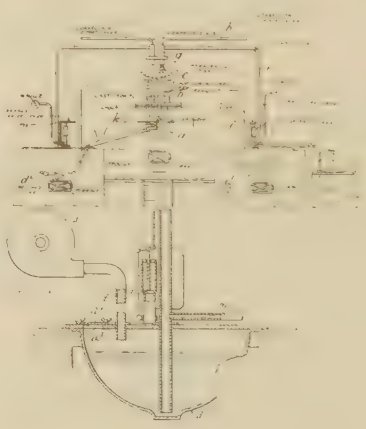
bring certain of the bottles upon said vertically movable table into engagement with the two sets of fluid gages, means controlled by said main operating shaft to operate said rocker frame, and means to supply a cap for each bottle at the completion of the filling operation thereof.

1,418,147. REIN HOLDER. OLIVER G. GILBERTSON, Osage, Iowa. Filed Mar. 15, 1921. Serial No. 452,622. 4 Claims. (Cl. 280—184.)



1. In a rein holder, a body member having a strap receiving portion, a strap engaging member swingingly supported thereon, and a yielding plunger mounted at one side of the swinging member and normally impinging the latter to hold it in strap engaging position.

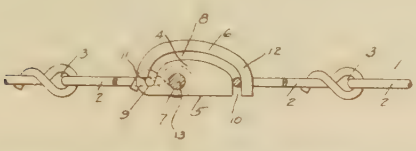
1,418,148. REFINING OF LEAD. HENRY HARRIS, London, England. Filed Jan. 29, 1920. Serial No. 354,852. 3 Claims. (Cl. 266—34.)



1. An apparatus for refining metals, comprising a heated pot adapted to contain the molten metal, a vertical open-

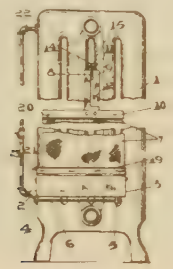
ended cylinder adapted to contain a molten reagent and having its lower end beneath the surface of the molten metal in the pot, a distributor at the upper part of the cylinder, and a device for charging the distributor with the molten metal.

1,418,149. TIRE-CHAIN FASTENER. JOEL W. HUBBLE, Jacksonville, Ill. Filed Nov. 17, 1919. Serial No. 338,514. 1 Claim. (Cl. 24—69.)



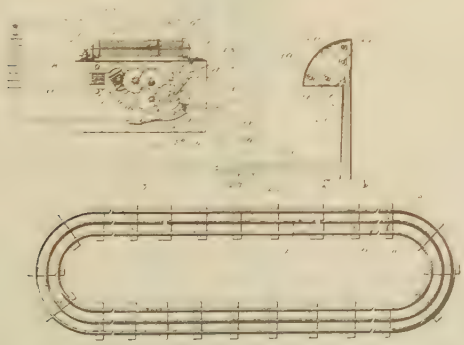
In a tire chain fastener, in combination, an elongated body having one straight edge, a fastener opening to receive a connecting element for one end of a chain, said opening located eccentrically to the ends of the body, and a cam shaped slot in said body, said slot opening out of said straight edge and terminating in the body at a point in proximity to said fastener opening.

1,418,150. HUMIDIFYING ATTACHMENT FOR RADIATORS. PHILIP T. JACKSON, Toronto, Ontario, Canada. Filed Jan. 10, 1920. Serial No. 350,609. 9 Claims. (Cl. 237—78.)



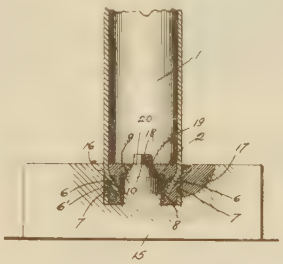
3. The combination with a sectional radiator of a humidifying device comprising a water duct; a narrow and relatively high trough communicating at one end with the duct; a sheet of absorbent material having its lower part lying in said trough and its upper part extending above the same to form an evaporating surface, the side walls of the trough extending above one end to permit of the sheets of absorbent material being introduced between the side walls from said end.

1,418,151. TOY ELECTRIC RAILWAY. HARRY E. LINDIG, Sunbury, Pa. Filed Feb. 18, 1922. Serial No. 537,615. 6 Claims. (Cl. 104—153.)



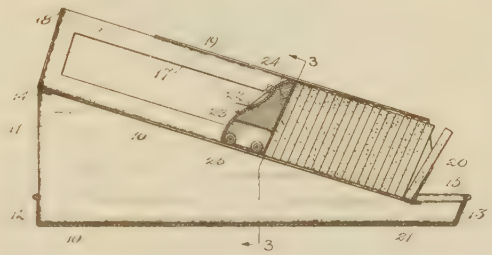
1. In a toy electric railway, an endless track, a third rail parallel with the track and having an insulated section, a current source connected to the track and third rail, and a motor driven switch adapted to alternately connect said insulated section with and disconnect said section from the power source.

1,418,152. CAST-METAL END FOR CONVEYER ROLLERS. ROBERT SMITH LOGAN, Louisville, Ky., assignor to Dow Wire & Iron Works, Louisville, Ky., a Corporation of Kentucky. Filed Oct. 11, 1920. Serial No. 416,280. 9 Claims. (Cl. 64—17.)



1. A conveyer roller including a tubular body provided near each end thereof with a plurality of openings transversely through the wall of the roller, a cast metal end in each end portion of the roller, each cast metal end including lugs entering the said openings in the roller, and a central metal bushing in each cast metal end for the reception of a bearing.

1,418,153. BREAD SERVER. CHARLES LORBER, Louisville, Ky. Filed Jan. 6, 1922. Serial No. 527,359. 3 Claims. (Cl. 211—29.)

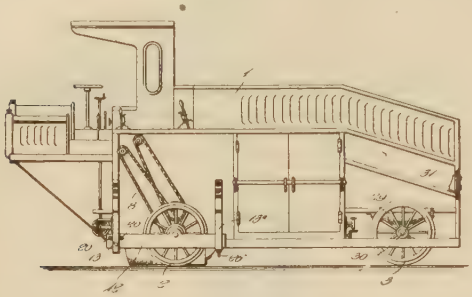


3. In a device of the kind described, a bread container having a forwardly inclined front wall extending from the bottom towards the top and the said container being open in the front above said front wall, means to support the container in an inclined position with the front lower than the rear, and means within the container for urging sliced bread to the front thereof, said last mentioned means comprising a follower movable longitudinally of the container, balls rotatably mounted in the bottom of the follower and resting on the bottom of the container and a weight disposed in the lower part of said follower.

1,418,154. FRONT TRUCK FOR STREET-SWEEPING MACHINES. CHARLES WALTER LUND, Willows, Calif. Original application filed Apr. 11, 1919, Serial No. 289,326. Divided and this application filed Mar. 10, 1921. Serial No. 451,150. 5 Claims. (Cl. 280—124.)

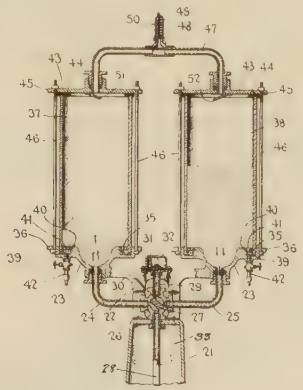
1. In a truck, front and rear fixed brackets each including a base and parallel vertical side bars rising therefrom, a pair of parallel horizontal bars extending between said brackets and contacting with the inner sides of said side bars, a wheel mounted between said horizontal bars, the latter being pivoted to the side bars of one of said

brackets, a transverse bar connecting the ends of said horizontal bars in the other bracket, a bolt rising from the base of said other bracket through an opening in said



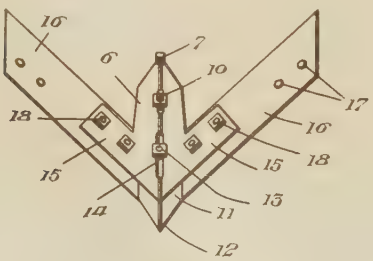
transverse bar, said bolt having an abutment spaced above said transverse bar, and a coiled spring interposed between said abutment and said transverse bar.

1,418,155. SEALED JOINT FOR LIQUID RECEPTACLES. JOHN C. MCKALLIP, Houston, Tex. Filed May 4, 1917, Serial No. 166,437. Renewed Mar. 4, 1920. Serial No. 363,284. 7 Claims. (Cl. 285—45.)



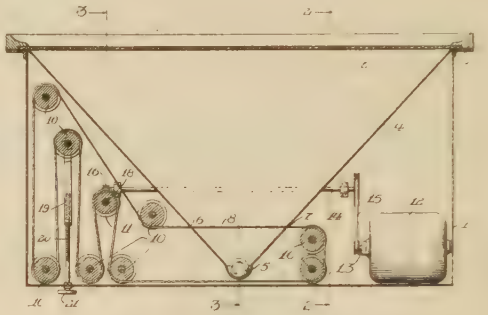
7. In a measuring device for gasoline, comprising base plates having annular grooves and gaskets at the bottom thereof, open ended cylindrical glass vessels engaging with their end edges in said grooves, the edges of said vessels being seated upon said gaskets, packing rings between the sides of said grooves and said vessels, and means for soaking said packing rings with water.

1,418,156. PLOW. RICHARD MARLOW, Ralph, Ala. Filed Sept. 25, 1920. Serial No. 412,718. 1 Claim. (Cl. 97—9.)



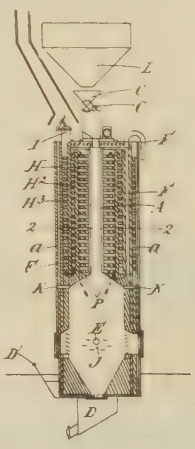
A plow comprising a frog having extensions near its forward end extending toward the opposite sides, said frog having a ridge between said extensions, a point piece bearing on the frog over said ridge, said point piece having its opposite ends pointed and being adapted to be reversed end for end, a clamping bolt extending through said point piece midway between the ends thereof for clamping said piece on the frog, the frog having a longitudinal slot at said ridge receiving said bolt, a pair of wings each in the shape of a parallelogram having adjacent ends overlapping said extensions, and bolts for removably clamping the end portions of said wings on said extensions, said wings having apertures near their opposite ends for the engagement of the last named bolts and the wings being reversible end for end for attachment on said extensions, the adjacent ends of the wings abutting the side edges of said point piece with said point piece and wings flush with one another.

1,418,157. ADVERTISING DEVICE. ALFRED O. MICKELSON, Chicago, Ill. Filed Feb. 12, 1921. Serial No. 444,411. 1 Claim. (Cl. 40—32.)



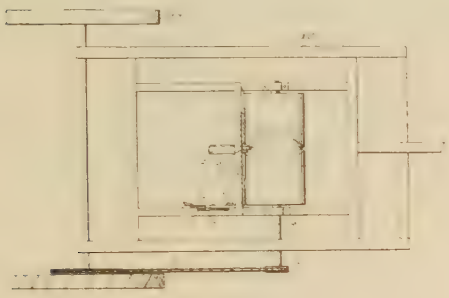
An advertising device comprising a pyramidal reflector, an electric bulb at the apex of said reflector, said reflector having slots in two of its opposite side walls reaching from the top to the bottom of the reflector, an endless tape passing through the slots and of a width substantially equal to the lengths and means for moving the tape.

1,418,158. GAS GENERATOR. SAMUEL MOORE, Scunthorpe, England. Filed Dec. 7, 1921. Serial No. 520,670. 5 Claims. (Cl. 48—71.)



4. In gas generating apparatus of the class described, a retort, a regenerating chamber surrounding said retort, a decomposing chamber beneath said retort, air and steam inlets at the base of the decomposing chamber, and air and steam inlets at the top of said regenerating chamber for alternating up and down runs.

1,418,159. COTTON CHOPPER. JAMES T. ODELL, Birmingham, Ala. Filed Aug. 22, 1919. Serial No. 319,268. 3 Claims. (Cl. 97—45.)

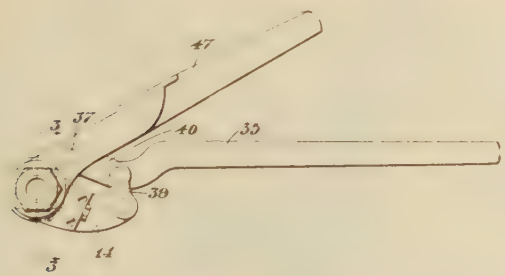


1. A cotton chopper having a rotary drum provided with a cam groove, a hoe having its stem universally mounted and provided at an intermediate point with a guide pin carrying a roller engaging with the groove of said drum, and movable means for guiding said stem in a path parallel with the axis of the drum.

1,418,160. BUILDING BLOCK. FRED PATEE, Casper, Wyo. Filed June 21, 1920. Serial No. 390,331. 2 Claims. (Cl. 106—24.)

1. A building block composed of asbestos aggregate between 5 and 7 parts; Portland cement 1 part; hydrated lime between 10 and 20 per cent of the weight of the cement, the same being mixed with a suitable quantity of water.

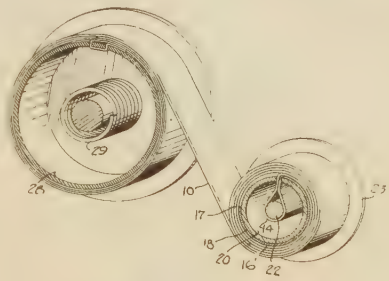
1,418,161. WRENCH. FRED FORREST PEASE, East Braintree, Mass. Filed June 2, 1920. Serial No. 386,130. 10 Claims. (Cl. 81—60.)



2. A wrench comprising a hub, a brace member journaled on the hub, an actuator member, a clutch connecting the actuator member and hub, a toggle connected with the actuator member, and means for operating the toggle to turn the actuator member.

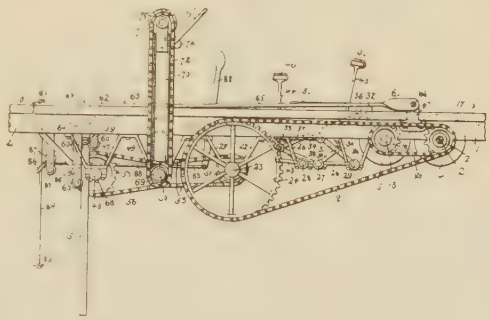
1,418,162. FABRIC-MEASURING CHART AND ROLLER THEREFOR. JOHANNES T. PEDERSEN, Flushing, N. Y., assignor, by mesne assignments, to The Measuregraph Company, a Corporation of Missouri. Filed Dec. 27, 1919. Serial No. 347,867. 4 Claims. (Cl. 40—86.)

1. In a fabric measuring and cost computing machine, the combination of a casing having a reading point, a measuring roller, a take-up roller driven by the measuring roller and having a chart with rows of computed figures attached thereto, and a shim wrapped between the roller and the chart, the shim being of a predetermined length operating to bring the rows of computed figures into



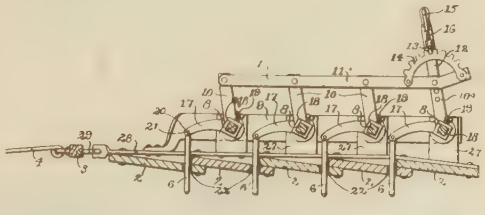
alignment with the reading point to correspond with the length actually measured by the measuring roller.

1,418,163. TRUCK AND DUMP WAGON. WILLARD A. PETTEYS, Wilcox, Nebr. Filed Oct. 12, 1920. Serial No. 416,338. 7 Claims. (Cl. 214—49.)



1. In an apparatus of the class described, a supporting body having openings to receive the rear wheels of a motor driven vehicle, a platform to receive the forward wheels of a motor driven vehicle, rotatable drums disposed in position to be engaged by the rear wheels of the motor driven vehicle when they drop through the body openings and rotatable thereby, means for elevating said platform to dispose the vehicle in discharging position, means for causing the motion of the drums to be transmitted to the platform elevating means, a yoke device swingingly supported, a chock device swinging from said yoke device and adapted to be disposed over one of said rollers, a shaft having an arm extending therefrom, a link coupling said arm to said yoke device, and means for oscillating said shaft.

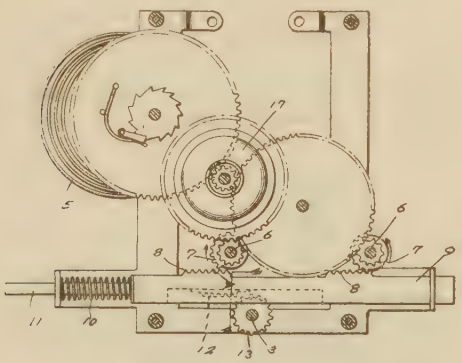
1,418,164. CULTIVATOR. HERBERT H. PIPER, Jackson, Mo., assignor of one-half to Eliza C. Piper, Jackson, Mo., and one-half to John A. Withers, Cape Girardeau, Mo. Filed Aug. 2, 1920. Serial No. 400,591. 7 Claims. (Cl. 55—23.)



1. In a cultivator, the combination of a deck having means for drawing the same along the ground, and having a plurality of openings therethrough, a flexible frame having a plurality of swivel bars rotatably supported above the deck and including means for connecting the

swivel bars to rotate the same in unison on their axes, a plurality of arms carried by the swivel bars and extending substantially horizontally therefrom, a plurality of teeth having joints connecting the same to the arms at points substantially in vertical alignment with the openings respectively and extending downwardly in a substantially vertical direction through the openings, means for rotating the swivel bars in unison to raise or lower the teeth with respect to the deck, and means carried solely by the flexible frame and independent of the deck for locking the flexible frame in a plurality of different positions.

1,418,165. FAN. ISIDORE J. PONSTEIN, New Orleans, La. Filed Aug. 24, 1920. Serial No. 405,727. 1 Claim. (Cl. 230—1.)

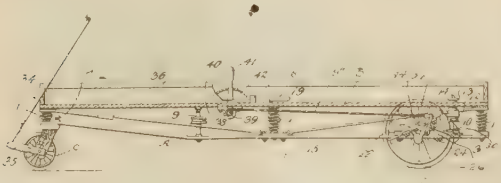


An apparatus of the character described comprising a base, a hollow stem provided thereon, a motor arranged in said base, a fan shaft passed through said stem, a reciprocating member in the base, a pinion provided on the fan shaft, a rack on the reciprocating member engaging said member, a fan connected with the shaft and means for causing the motor to reciprocate said member, said means consisting of a pair of shafts driven in opposite directions by the motor, mutilated pinions provided on said shafts and racks engaged by said pinions, spring means for resisting the movement of said reciprocating member.

1,418,166. VULCANIZATION OF RUBBER AND OTHER LIKE SUBSTANCES. BENJAMIN DAWSON PORRITT, Edinburgh, Scotland, assignor to The North British Rubber Company, Limited, Edinburgh, Scotland. Filed Mar. 7, 1919. Serial No. 281,202. 6 Claims. (Cl. 18—53.)

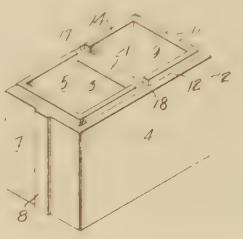
1. The method of accelerating vulcanization which consists in adding to the mixture to be vulcanized an anhydrous compound resulting from the interaction of strong alkali with the nuclear monohydroxy derivatives of benzene in which the hydrogen of the hydroxyl group is replaced by the radicle.

1,418,167. BRAKE MEANS. WILLIAM K. PORTER, Pittsburgh, Pa. Original application filed June 30, 1920, Serial No. 392,984. Divided and this application filed Apr. 5, 1921. Serial No. 459,011. 9 Claims. (Cl. 188—8.)



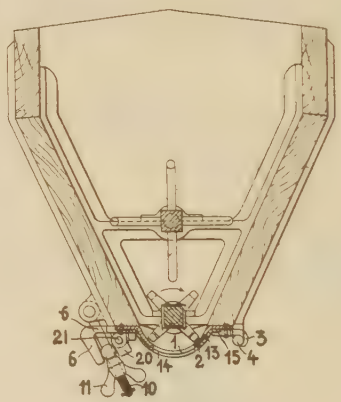
1. In a convertible sled and wheeled vehicle including a main frame and interchangeable sled runners and wheels, brake operating means mounted upon said main frame, and sled and wheel brakes adapted to be interchangeably connected to the brake operating means.

1,418,168. BUILDING BLOCK. EDWIN PRESTON, Oakland, Calif. Filed Aug. 2, 1920. Serial No. 400,581. 1 Claim. (Cl. 72—41.)



A hollow building block comprising end and side walls having top and bottom faces, a web parallel to and of the same thickness as said end walls arranged to connect said side walls together whereby a pair of transversely aligned openings are formed in said block, a substantially continuous shoulder formed along each of the upper edges of said openings except the edge defined by said web, the terminating faces of said shoulders being parallel to and in the plane of the adjacent face of said web, and a continuous shoulder extending along the bottom edges of said block spaced from the inner sides of said openings and having its lower face flush with the bottom of said web.

1,418,169. FERTILIZER-DISTRIBUTING MACHINE. WILHELM PRINTZ, Kettwig-Ruhr, Germany. Filed Dec. 12, 1921. Serial No. 522,154. 3 Claims. (Cl. 221—118.)



1. In a machine for distributing fertilizer, a box for receiving the fertilizer, a slotted bottom hinged on said box, a slotted gate cooperating with said bottom, means for securing said bottom to said box in operative position, means embodying a pivoted angular member for securing said gate to said bottom in operative position, said bottom securing means in its operative position engaging one leg of said angular piece to cause the other leg of said angular piece to support said gate.

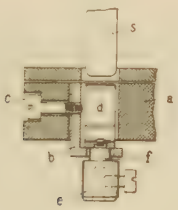
1,418,170. EYEGLASS TEMPLE HOLDER. FRED RADCLIFFE, Philadelphia, Pa. Filed Oct. 6, 1921. Serial No. 505,781. 2 Claims. (Cl. 88—53.)

1. A joint clip for spectacles having a means for attachment to the temple, and a spring carried by said clip

for yieldingly holding the temple in a position perpendicular to the lens frame, the clip having parallel leaves

arranged at opposite sides of the plane of the temple and knuckle and being slotted longitudinally adjacent to the latter.

1,418,171. PLUG AND SOCKET CONTACT. BRUNO RAETTIG, Cologne-Lindenthal, Germany. Filed Sept. 17, 1921. Serial No. 501,422. 4 Claims. (Cl. 173—332.)



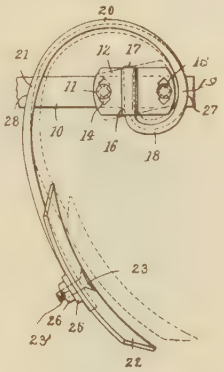
1. In an electrical connector, a contact member, an insulating support for said contact member formed with an opening to permit of limited angular movement of said contact in said support, an L-shaped carrier supported within said opening with one of its arms disposed transversely to the axis of said opening, said arm being apertured, a terminal member formed with a neck screw-threadedly engaging said contact, said neck passing loosely through said aperture for displaceably supporting said contact member.

1,418,172. COATING FOR THE PRESERVATION OF WOOD, PASTEBOARD, MASONRY, LEATHER, SHEET IRON, ETC. EUGEN RECK, Charlottenburg, Germany, assignor to Freeses Patent Eisenschutz und Schraubenwellenbekleidung für Schiffe G. m. b. H., Charlottenburg, Germany. Filed Jan. 6, 1921. Serial No. 435,564. 10 Claims. (Cl. 134—42.)

7. An improved coating for the preservation of wood, pasteboard, masonry, leather, sheet iron, fabric, and the like, composed of minium with one-half of the quantity thereof of wood-tar mixed together with a diluting liquid.

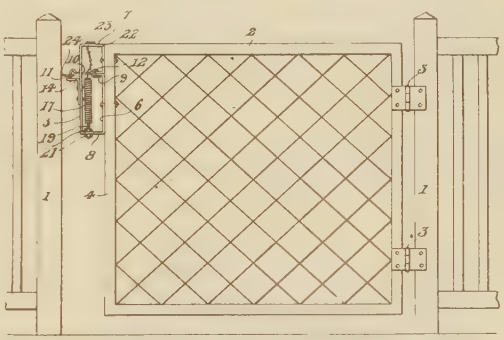
1,418,173. SPRING TOOTH FOR CULTIVATORS. ARTHUR W. REYNOLDS, Newtown, Conn. Filed Dec. 8, 1920. Serial No. 429,057. 8 Claims. (Cl. 55—97.)

1. A spring tooth of the character described, comprising a pair of reversible plates adapted to be clamped to opposite sides of a bar and each having a vertically arranged groove, said grooves being arranged at some point other than the longitudinal centers of the plates, and a pair of separable springs carried in said grooves and supported from said bar, said plates with grooves con-



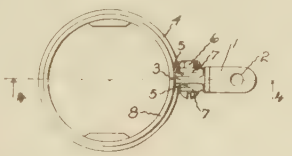
stituting means for securing the pair of springs to said bar either side by side or one forward of the other.

1,418,174. GATE LATCH. STEPHEN A. RZATKIEWICZ, Milwaukee, Wis. Filed Aug. 4, 1921. Serial No. 489,768. 4 Claims. (Cl. 292—125.)



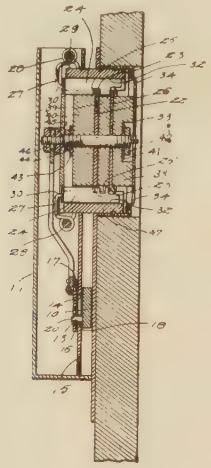
1. A gate lock comprising a frame formed of a strap bent into rectangular formation with the adjacent ends of the strap directed inwardly, a hook pivoted to the adjacent ends of the strap and having the bill end thereof projecting through the opposite side of the frame strap, a spring extending between said hook and the bottom of the frame, a guard plate secured to the outer side of the frame and having an opening therein to receive the extreme end of the hook bill, and an eye bolt receiving said hook at a point above the guard plate.

1,418,175. TIMING MECHANISM. WOLFGANG E. SCHWARZMANN, Longmeadow, Mass., assignor to American Bosch Magneto Corporation, New York, N. Y., a Corporation of New York. Filed Dec. 11, 1920. Serial No. 430,015. 6 Claims. (Cl. 200—25.)



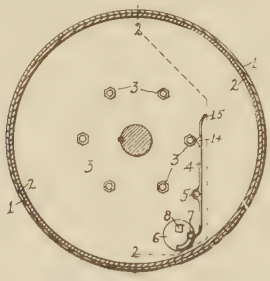
3. In a timing device for magnetos comprising an interrupter housing having a cam ring, the combination of an annular band parted along a radius thereof and having radially extending portions at the parting thereof, a timing arm having a tongue between said portions and means for securing said portions to said tongue and for tightening said band about said ring.

1,418,176. COMBINATION LOCK. LENARD EARL SHEETS, Campo, Colo. Filed July 1, 1920. Serial No. 393,267. 5 Claims. (Cl. 70—54.)



1. A lock having a bolt actuating spindle carrying a peripherally notched disc, a concentric series of tumblers movable in parallelism with the axis of the disc and provided with seats or notches for respective registration with the disc, springs respectively and detachably engaged with said tumblers for yieldingly holding them in their normal position, certain of the tumblers having their seats or notches normally out of registration with the disc, and retaining means for respective engagement with the tumblers for repressing the same in opposition to their actuating springs to vary the positions of their seats or notches with relation to the plane of the disc.

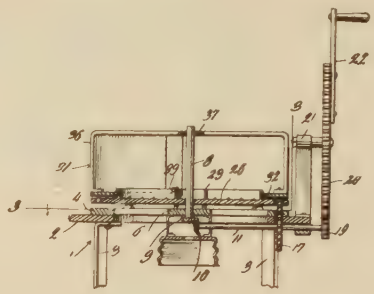
1,418,177. AUTO BURGLAR ALARM. DAVID B. SHELLER, Tacoma, Wash. Filed Oct. 9, 1920. Serial No. 415,842. 3 Claims. (Cl. 116—33.)



1. An auto-theft alarm, comprising in combination with a vehicle brake-drum; a spring-bar pivotally mounted within the brake-drum, a rotatable cam mounted within the drum and formed with an arcuate slot, means connecting one end of the pivoted spring bar with the slotted portion of the cam for positively throwing the other end of bar into and out of alarm-giving position, and means for rotating the cam to throw the pivoted bar into and out of the path of studs attached to a rotating portion of the brake-drum to make and break contact with the studs.

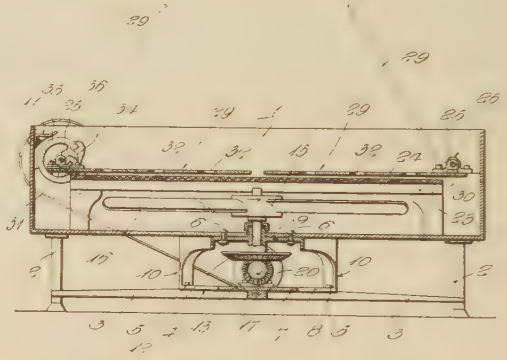
1,418,178. ROTARY SLICER AND GRATER. JOSEPH M. STELMACH, St. Paul, Minn. Filed Aug. 12, 1920. Serial No. 402,958. 1 Claim. (Cl. 146—11.)

A rotary slicer comprising a supporting structure, a cutting disk rotatably mounted thereon and provided with a plurality of circumferentially arranged apertures adjacent its edge, a driven pinion arranged thereunder and having its teeth cooperating with said apertures, said disk being provided with an upstanding annular flange, a hopper structure hinged to said supporting structure and embodying the ring like plate adapted to encircle the upstanding flange of the cutting disk and to be



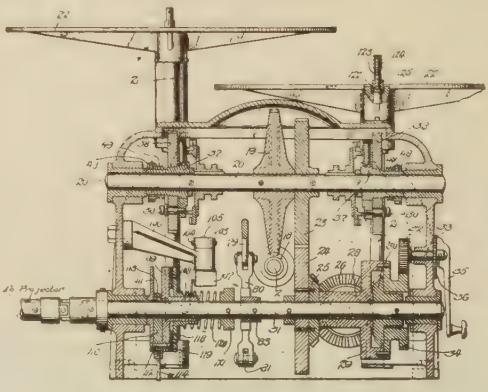
arranged over the apertures of the disk, and means whereby the ring like plate is spaced above the cutting disk.

1,418,179. CARPET BEATER. EMMA H. STONER, Enid, Okla. Filed Mar. 2, 1921. Serial No. 449,010. 7 Claims. (Cl. 15—12.)



2. A carpet beater comprising a carpet support, a carpet beater loosely mounted for swinging movement, a rotatable carrier, a beater engaging element movably associated with said carrier and yieldably held in position for engaging said beater, and means for moving said beater engaging element out of engagement with said beater as the carrier rotates.

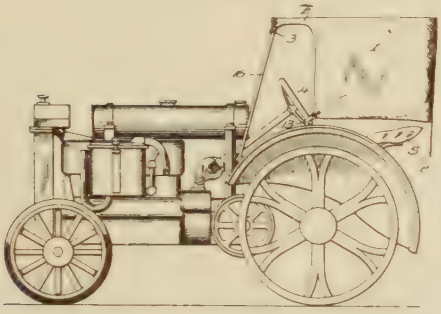
1,418,180. MULTIPLE-RECORD TABLE FOR MOTION-PICTURE MACHINES. WILLIAM PRESTON STUNZ, Lansdowne, Md., and LEWIS RICHARD GILBERT, Kalamazoo, Mich., assignors to The Webb Talking Pictures Company, a Corporation of Delaware. Filed July 12, 1920. Serial No. 395,595. 9 Claims. (Cl. 88—16.2.)



1. A plurality of record supporting tables, a counting mechanism for each record table having successively

acting dials adapted to be set for the number of revolutions of each record employed, and means for rotating one record table and its companion counting dials in unison and stopping the rotation of the other table while its companion counting dials are being adjusted for the record of that table.

1,418,181. TRACTOR ATTACHMENT. A A SUNDE, Ute, Iowa. Filed July 15, 1921. Serial No. 484,952. 4 Claims. (Cl. 280—150.)



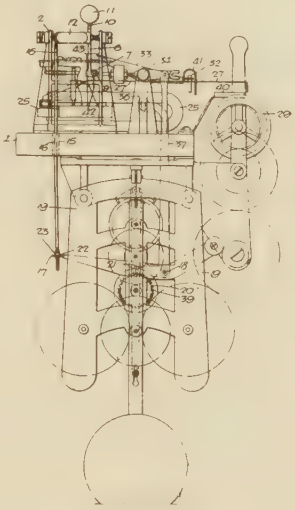
1. The combination with a tractor having a canvas engine hood; of a top frame carried by the tractor and shaped to conform to the shape of the hood, said hood being usable alternately on the engine or the frame as a protector for the engine or the driver.

1,418,182. INHALER. BENJAMIN C. TABOR, Ashland, Oreg. Filed Dec. 19, 1919. Serial No. 345,978. 6 Claims. (Cl. 128—195.)

1. An inhaler, a mask to mount the medium to be inhaled, an ear-engaging hook, and bails extending from the hook separated at and secured to the mask to spread the same.

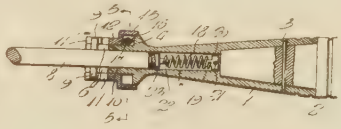
1,418,183. GRAPHIC RECORDER. CHARLES B. THWING, Philadelphia, Pa., assignor to Thwing Instrument Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 11, 1921. Serial No. 451,445. 10 Claims. (Cl. 234—5.5.)

1. In a graphic recorder, the combination of a record-receiving element, a marking element, electrical means normally determining the position of said marking element relative to the receiving element, and mechanical means for shifting the marking element to a specified position



against the force exerted thereupon by the said normal position-determining means.

1,418,184. SCREW DRIVER. CHARLES TRUNICK, Farrell, Pa. Filed Aug. 12, 1920, Serial No. 402,938. Renewed Apr. 7, 1922. Serial No. 550,515. 1 Claim. (Cl. 279—93.)

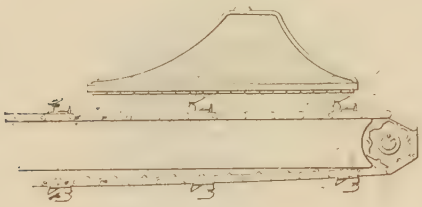


A screw driver comprising a handle having a longitudinally extending socket formed therein, a collar formed upon the handle intermediate the depth of the socket, the forward end portion of the handle having longitudinally extending side slots cut from its end and communicating with the socket, a sleeve rotatably mounted upon the forward end portion of the handle and having bayonet slots cut from its end for registering with the slots of the handle, the sleeve having an outstanding collar fitting upon the collar of the handle and forming a spring housing, a pin extending from the handle through an angular slot formed in the sleeve to limit rotary movement of the sleeve, pins carried by the sleeve and collar of the handle and extending longitudinally of the handle in opposite directions within the spring housing, a spring positioned within the spring housing and having connection with the pins of the sleeve and handle collar to yieldably retain the sleeve against rotary movement out of a locking position, a protector sleeve fitting upon the slotted sleeve for covering the slotted sleeve and outer end portion of the side pin, and a bit fitting into the socket and having side pins for fitting into the registering slots of the sleeve and handle.

1,418,185. WORK HOLDER FOR ENDLESS CONVEYERS. ERNEST K. VAN BUSKIRK, Binghamton, N. Y., assignor of one-half to Harold Ivan Harris, Binghamton, N. Y. Filed Apr. 19, 1920. Serial No. 375,099. 5 Claims. (Cl. 198—131.)

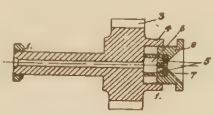
1. In a work-holding device for a chain conveyer, a chain-link, a base-plate seated on and united with the

outer side of said chain-link, a jaw mounted upon said base-plate and adjustable longitudinally of the same, means for releasably holding said jaw in an adjusted po-



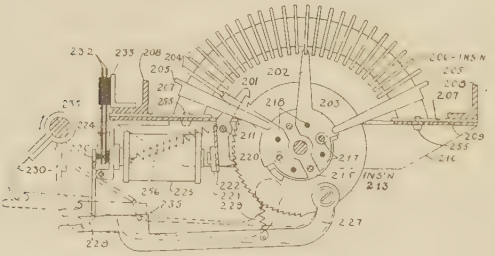
sition, and a second jaw extending in overhanging relation to the first jaw and having a work-engaging face extended parallel to the work-engaging face of the first jaw.

1,418,186. MANUFACTURE OF NAILS AND THE LIKE. MARK HOWARTH, Padgate, Warrington, England. Filed Sept. 30, 1919. Serial No. 327,525. 1 Claim. (Cl. 10—34.)



The herein described process of making helically grooved nails, consisting in drawing wire through an aperture formed by balls and revolving the balls around the wire being drawn, cutting the wire beyond the balls into determinate lengths and forming heads on said lengths.

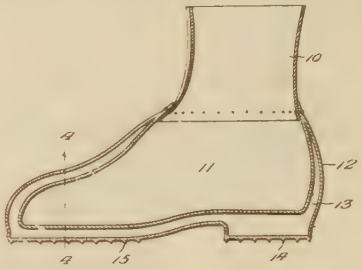
1,418,187. AUTOMATIC TELEPHONE SYSTEM. DAVID S. HULFISH, Toronto, Ontario, Canada. Filed May 27, 1918. Serial No. 236,833. 27 Claims. (Cl. 179—18.)



14. In a telephone system, a line, two searching switches operative to serve said line contemporaneously, means for advancing said two switches simultaneously into preliminary selective positions, and further means for advancing one of said switches to said line.

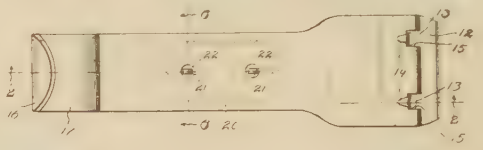
1,418,188. BOOT OR SHOE. JOSEPH H. JACOBS, Miles City, Mont. Filed June 12, 1920. Serial No. 388,568. 1 Claim. (Cl. 36—1.)

A metal boot or shoe, comprising an inner member shaped to form the same with a vamp, counter and sole, and an outer hollow member correspondingly shaped with the inner member but of a greater size than the inner member so that the said inner member is wholly received in the outer member but held away from contact therewith except at the upper edge of both of the members, and both of said members being connected at their said upper ends and the space between the inner and outer



members providing a vacuum chamber, and a fabric upper stitched to the jointed upper edge of the inner and outer members.

1,418,189. SCRAPING TOOL. JOHN A. KIMBALL, Taylorville, Ill. Filed July 25, 1921. Serial No. 487,538. 2 Claims. (Cl. 145—47.)

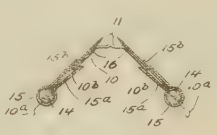


1. A tool of the character described, comprising a handle made up of separable sections, a cutting blade adapted to be positioned between the sections and project beyond one end of the tool, said blade having openings, cooperating means on the respective sections for clamping the blade between the latter, and said sections being designed to unitedly define a loop at the opposite end of the handle, the component parts of said loop being resilient for interlocking association for the purpose specified.

1,418,190. HAT HANGER. EVAN JAMES LEWIS, Canonsburg, Pa. Filed May 7, 1920. Serial No. 379,632. 1 Claim. (Cl. 2—186.)

In a hat hanger, a flat rigid strip of material adapted to be secured at one end to a hat, and a pointed securing member loosely secured through said strip at the other end thereof and disposed at right angles to the plane of the strip.

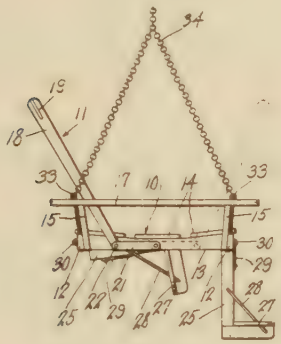
1,418,191. SAFETY RAZOR. ROBERT W. MCGARVEY, Sparrows Point, Md. Filed Nov. 7, 1919. Serial No. 336,349. 25 Claims. (Cl. 30—12.)



1. In a safety razor, in combination, two razor blade supporting plates rigidly secured together at an angle, the

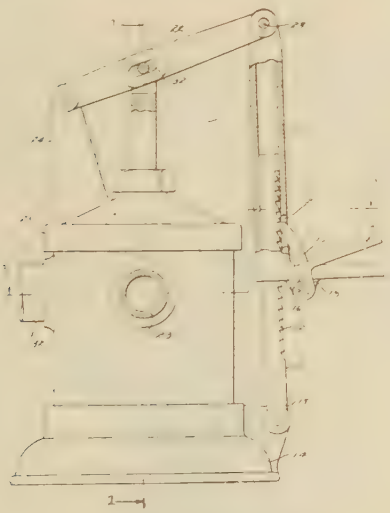
space between the plates being unobstructed and each plate being of a size and shape to be conveniently grasped and held as a handle by the fingers, and a razor blade secured to each of said plates, the adjacent edges of said blades constituting cutting edges.

1,418,192. SWING. BENJAMIN F. MALOTT, Greenville, S. C. Filed July 23, 1921. Serial No. 487,080. 1 Claim. (Cl. 155—68.)



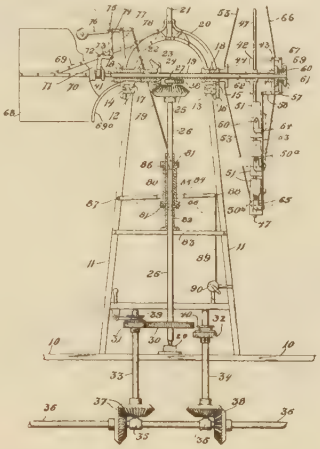
A combined bench and swing comprising a seat, a back secured to the seat, means connected to the seat, whereby the swing may be suspended, means whereby the back may be reversed, spaced legs hingedly secured beneath each longitudinal edge of the seat, whereby the legs may be folded upward beneath said seat, a combined foot rest and brace connecting the legs and means for holding the legs in folded or unfolded position.

1,418,193. PEDAL-CONTROL LIQUID MIXER. WILLIAM MEIER, New York, N. Y. Filed Oct. 25, 1919. Serial No. 333,151. 6 Claims. (Cl. 277—18.)



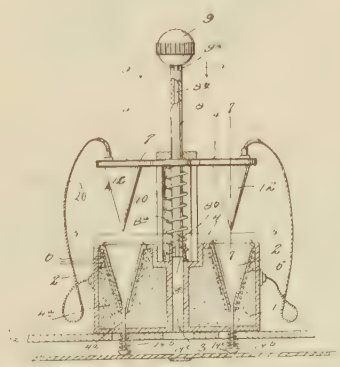
1. In a device of the character described comprising hot and cold water inlets, valve gates therefor, each of said gates having an inclined surface thereon, a spring-pressed spindle, a gate-actuating member mounted on said spindle and arranged to successively actuate said gates, a means connected to said spindle including a pedal, a pawl associated therewith, and a relatively movable toothed member adapted to cooperate with said pawl, whereby the said gate actuating member may be controlled by movement of said foot pedal.

1,418,194. WINDMILL. POLIKARP MELNICK, Camden, N. J. Filed July 2, 1921. Serial No. 482,156. 5 Claims. (Cl. 170—69.)



1. In a wind actuated power producing mechanism the combination of a supporting framework surmounted by an annular track, a turntable rotatable on said track by means of a mill vane, a horizontal tubular shaft rotatable in bearings on said turntable, an inner shaft longitudinally movable in said tubular shaft, a wind-wheel attached on the outer end of said hollow shaft and including a series of interconnecting tangentially pivoted wings of concavo-convex cross section, said wind-wheel comprising an inner and outer spaced hub, the inner hub including a series of radial arms between which the aforesaid wings are journaled, means for bracing said arms together and to the aforesaid spaced hubs, angled levers pivoted about the perimeter of the outermost hub and having all their arms on one side of their pivotal points operatively connected to elbow members on the axes of the wing planes, a collar on the inner shaft in operative engagement with the other arms of said angled levers whereby they are simultaneously rocked to effect the angular deflection or opening outwards of said wing vanes, means for automatically closing said wing vanes, and manually operable means for effecting the outward movement of the aforesaid inner shaft.

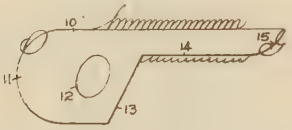
1,418,195. ICE-CREAM-CONE MACHINE. RICCARDO MIGLIETTA, Meriden, Conn. Filed Mar. 28, 1921. Serial No. 456,452. 5 Claims. (Cl. 107—58.)



1. In an apparatus for the purpose described, the combination of a body, inverted cone-shaped receptacles disposed in said body and open at their upper ends, resistance

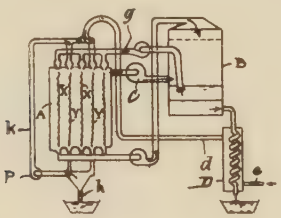
coils disposed in the body in close proximity to the receptacles and connected with the source of electric energy, a guide rising from the body, a head movable up and down in the guide and also movable about its center in the guide, a spring for raising said movable head, a stem connected with the head, a guide for said stem, inverted cone-shaped members carried by the head, resistance coils in said male members, and flexible conductors intermediate the body and said resistance coils.

1,418,196. INSTRUMENT FOR TEACHING AND PERFECTING PENMANSHIP. PATRICK F. MOFFETT, Worcester, Mass. Filed June 15, 1921. Serial No. 477,842. 2 Claims. (Cl. 35—8.)



2. As an article of manufacture, an instrument for the purpose described comprising a flat thin body having an upper horizontal bounding surface and a lower horizontal bounding surface connected by a semi-circular end constituting a handle for manipulating the instrument and a guide for starting capital letters and having an inclined edge extending upwardly from the lower horizontal surface at an angle and stopping short of said upper horizontal surface and having a horizontal edge extending therefrom parallel to said upper horizontal surface connected to it by a curve at the end, and provided with an oval opening therethrough at a distance inside the inclined straight edge and having its axis parallel therewith.

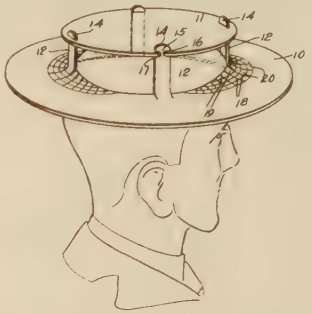
1,418,197. PROCESS FOR EVAPORATING LIQUIDS. EINAR MORTERUD, Torderod, near Moss, Norway. Filed Oct. 15, 1918. Serial No. 258,271. 7 Claims. (Cl. 127—9.)



1. The process of evaporating liquids, which comprises compressing the vapor from a solution to be evaporated, transmitting by contact the condensation heat of the compressed vapor to an intermediate material that is insoluble in the condensate from the solution being evaporated, and evaporating the solution by the heat absorbed by said material.

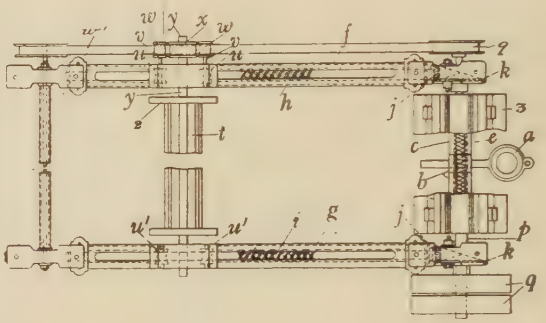
1,418,198. HAT. HARRY N. NEPPELL, New York, N. Y. Filed Apr. 26, 1921. Serial No. 464,512. 3 Claims. (Cl. 2—114.)

1. A novelty hat comprising a crown and a frame having a head receiving opening, and circumferentially spaced supporting strips secured to the brim having disengageable connection at their free ends to the crown to constitute a means for connecting the crown to the brim whereby to permit of the folding of the crown against the brim



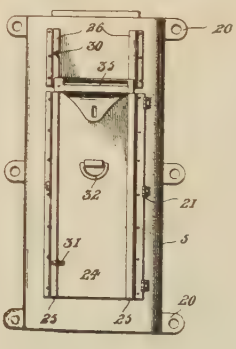
upon disengagement of certain of the supporting strips from the crown and bending the remaining strips.

1,418,199. CLOTH-PILING MACHINE. DAVID GEORGE NORTON and ALBERT DUROT, Manchester, England, assignors to Sir James Farmer & Sons Limited, Salford, Manchester, England. Filed Dec. 9, 1920. Serial No. 429,564. 2 Claims. (Cl. 8—19.)



1. In cloth piling machines, the combination with the usual cloth guide reciprocated across the machine, of tubular rails extending the length of the machine upon which the winch carriage rides, right and left hand screws extending through the said tubular rails, means upon the carriage engaging the said screws through slots in the tubular rails, and means for rotating the winch as it is reciprocated by the screws, as set forth.

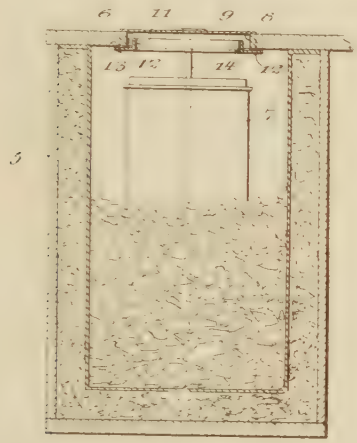
1,418,200. COMBINATION MILK-BOTTLE RECEPTACLE AND MAIL BOX. JOSEPH PANIK and STEVE CLEBO, West Park, Ohio. Filed July 23, 1921. Serial No. 487,012. 6 Claims. (Cl. 232—44.)



1. In a milk bottle receptacle of the class described, a casing provided with a top closure having means auto-

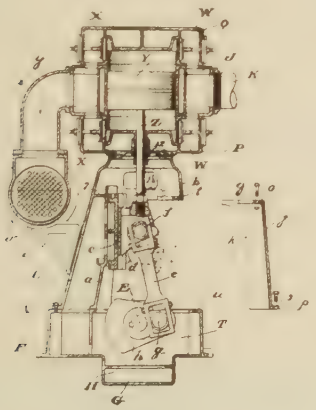
matically operable upon insertion of a milk bottle within the casing for locking the same in closed position, said casing being provided with a side opening through which said milk bottle may be withdrawn, a door for said side opening including a hinged frame provided with vertical guide ways, a panel slidable in said guide ways for closing the opening of the frame, and means to simultaneously lock the frame in closed position and the panel in its position for closing the opening of the frame.

1,418,201. CLOSURE. PETER PAPPAS, Kankakee, Ill. Filed Oct. 29, 1921. Serial No. 511,262. 5 Claims. (Cl. 217—56.)



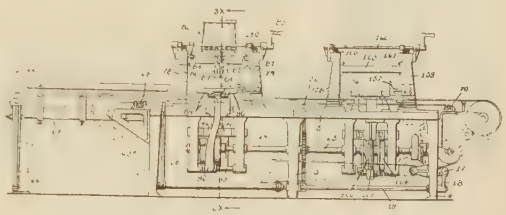
1. The combination with a closure having an opening therein and a cover therefor; of a gutter attachment in said opening.

1,418,202. VERTICAL COMPRESSOR UNIT. FREDERICK W. PARSONS, Elmira, N. Y., assignor to Ingersoll-Rand Company, Jersey City, N. J., a Corporation of New Jersey. Filed May 20, 1921. Serial No. 471,133. 6 Claims. (Cl. 230—32.)



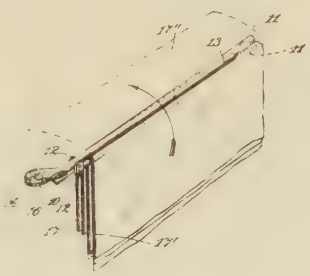
1. A supporting frame for a vertical compressor unit, comprising a hollow base affording a bearing for a main crank shaft, a main frame mounted on said base and consisting of a column open at one side and having inner and outer walls at the opposite side, a top portion overhanging the open side of the column, and a closure for said open side in the form of a removable section of the side of the column constituting a combination cover plate and front support, the inner vertical wall of the column affording means for supporting a cross head guide, whereby the front of the column may be removed without disconnecting or disturbing the operative parts of the machine.

1,418,203. BOTTLE-FILLING MACHINE. THEODORE E. PENNOCK, Rochester, N. Y. Filed Apr. 3, 1919. Serial No. 287,270. 21 Claims. (Cl. 226—76.)



21. In a bottle filling machine, the combination of two platens, smooth belts moving parallel to said platens, one on each side of the platens, means for transferring bottles from one belt to the first platen, means for filling the bottles, said transferring means thereafter moving them to the second belt, said second belt advancing the bottles to the second platen, means for transferring the bottles from the second belt to the second platen, a bridge against which said second platen operates to drive corks into said bottles, said transferring means moving the bottles from said second platen to the first belt, said belts moving intermittently and being timed to move while the platens are up.

1,418,204. PAPER-HOLDING DEVICE. FREDERICK R. W. ROSS, Orange, N. J. Filed Feb. 12, 1921. Serial No. 444,566. 4 Claims. (Cl. 129—38.)

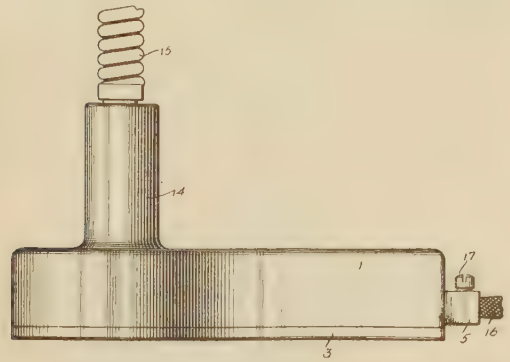


1. In a paper holding device, in combination, a plurality of separate spaced parallel fingers, a binding member pivotally attached to the parallel fingers and abuttable thereon in normal position and means for revolving the binding member upon its pivot to disengage the binding member and parallel members.

1,418,205. TOOL-OPERATING MACHINE. ANDREW SALATA, New York, N. Y. Filed Mar. 29, 1921. Serial No. 456,682. 5 Claims. (Cl. 29—76.)

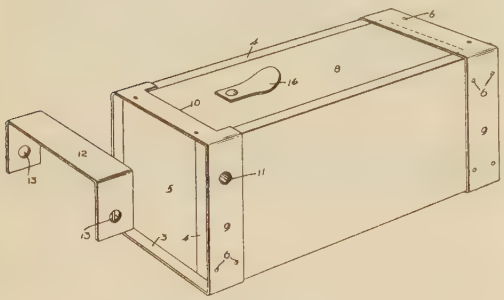
1. A tool-operating machine, which comprises a casing, a tool carrier reciprocally mounted therein, one end of

said carrier adapted to extend outside of the casing, means for operating the tool, said means being disposed



within the casing; and tool fastening means disposed on said carrier outside of said casing.

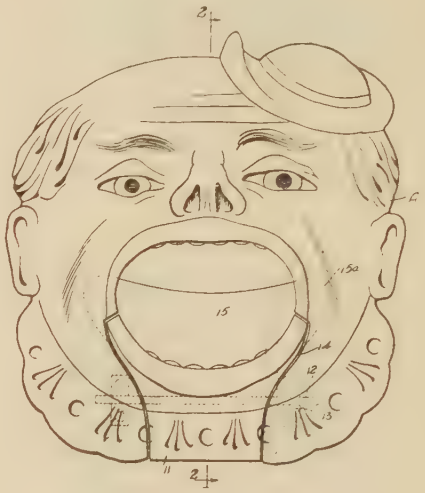
1,418,206. TYPE BOX. WILLIAM A. SEARS, Leon, Kans. Filed Apr. 6, 1921. Serial No. 458,938. 4 Claims. (Cl. 217—69.)



1. A rectangular box of the character stated including a bottom, side walls and end walls, said end walls having recesses in their inner upper edges forming shoulders, metal encircling bands around the end members, the width of said bands being substantially the same as the thickness of the end members, one of said bands having a recess therein registering with a recess in the end member which it encircles, a removable cover resting on the shoulders, and means for retaining the cover in position.

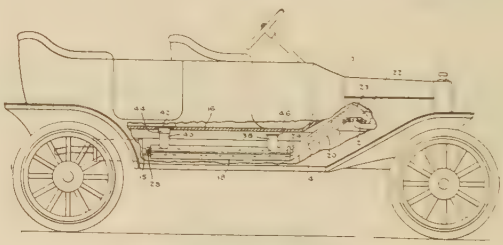
1,418,207. BASEBALL TARGET. EDWARD CROSSMAN SHEARS, Portland, Oreg. Filed July 26, 1921. Serial No. 487,628. 2 Claims. (Cl. 124—15.)

1. A baseball target structure comprising a body having a cut-out therein, and a target element pivotally hung on said body at said cut-out and partly filling the latter so that the cut-out of the body and the swingable element jointly present an opening through which a ball may pass, said target element having a stop member extending laterally to overlap the rear surface of the body above the pivotal center of the target element to limit the forward swinging movement of the latter and determine its normal position, the lower portion of said target element being overbalanced to maintain said element normally in the plane of the body, and a second stop element on



said target element at the back below the pivotal axis and overlapping the rear surface of the body to limit the rearward swinging movement of the target element.

1,418,208. HEATING ATTACHMENT FOR MOTOR VEHICLES. JAMES D. SHOTWELL, Minneapolis, Minn., assignor to Shotwell Johnson Company, Minneapolis, Minn. Filed Jan. 31, 1921. Serial No. 441,177. 3 Claims. (Cl. 237—123.)

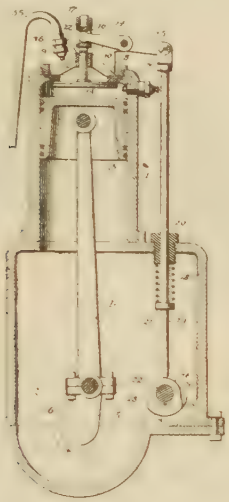


1. A heating attachment for motor vehicles comprising a casing for surrounding the exhaust pipe thereof, said casing having a fresh air opening at its forward end and at its rear portion being in two longitudinally divided parts, means for securing said divided parts together, a pair of transverse spring arms secured respectively to said divided parts, and adapted to fit upon the exhaust pipe, a branch pipe extending upwardly from said casing and a register for the vehicle floor attached to said branch pipe.

1,418,209. GAS ENGINE. JOHN E. SMITH, New York, N. Y., assignor of one-third to Thomas T. Gaunt, and one-third to William D. N. Perine, both of New York, N. Y. Filed June 8, 1918. Serial No. 239,014. 6 Claims. (Cl. 123—79.)

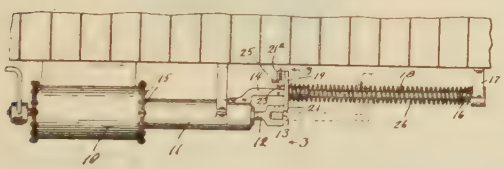
1. In a gas engine, the combination of a cylinder; a piston working therein; a single combined inlet and exhaust valve opening into the cylinder and alone controlling the intake and exhaust of the engine; a variable throw cam working in timed relation with the piston and

serving to close the valve at different points of the compression stroke; means under the control of the operator



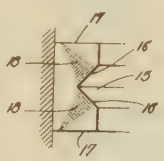
for adjusting said cam; and means for injecting fuel directly into the cylinder through the valve opening when the piston is moving through the intake stroke.

1,418,210. AIR-BRAKE SYSTEM. WILLIAM HENRY SOUTHER, West St. John, New Brunswick, Canada. Filed May 12, 1921. Serial No. 469,070. 8 Claims. (Cl. 116—127.)



1. A device for registering the travel of the piston of an air brake comprising a stationary guide bar of substantial length, a slider movably supported thereby arranged to be engaged by the piston and moved outwardly along said guide bar, manually-operated means arranged releasingly to hold said slider in moved positions on said guide bar, and a spring engaging said slider to oppose the outward movement thereof.

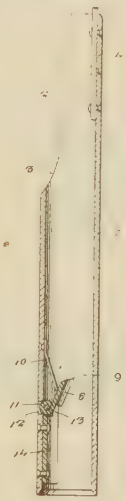
1,418,211. PISTON RING. HENRY STOFFERS, Newark, N. J. Filed May 12, 1921. Serial No. 468,888. 3 Claims. (Cl. 74—109.)



1. As an article of manufacture, a piston ring provided with an inner annular groove having angularly disposed faces and increased grain density extending at a right angle to the angular faces of the groove.

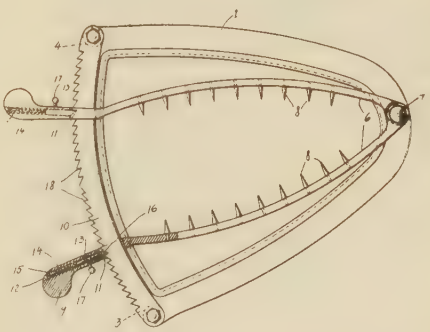
1,418,212. FISHING TOOL. CHARLES STRAND, Burkburnett, Tex. Filed Nov. 20, 1920. Serial No. 425,447. 1 Claim. (Cl. 294—104.)

A fishing tool comprising a tubular body, a plate of concavo-convex shape in cross section secured in the tubular body adjacent to the lower end thereof, arms formed by the upper end of said plate being bifurcated, said arms having their inner surfaces concaved, a jaw of a concavo-convex shape in cross section having one end sharpened and its opposite end provided with an offset ear disposed between



the arms of the aforementioned plate, a pivot passing through said tubular body, concaved surfaces of said arms, and said jaw respectively, and a spring secured within the tubular body engaging the jaw to swing the same to active position.

1,418,213. MEAT HOLDER. ROMAN SVIONTEK, Chicago, Ill. Filed June 20, 1921. Serial No. 478,968. Renewed Apr. 24, 1922. Serial No. 556,358. 3 Claims. (Cl. 17—14.)

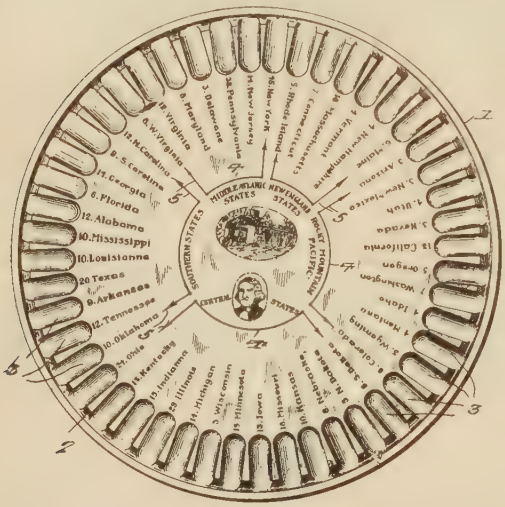


1. A meat holder of the character described comprising swinging arms mounted on a support; a segmental rack mounted on said support; slots in said arms slidably embracing said rack; handles on said arms; bores extending through said handles and communicating with the slots in said arms; and spring pressed pins slidably mounted in said bores normally engaging said rack, substantially as described.

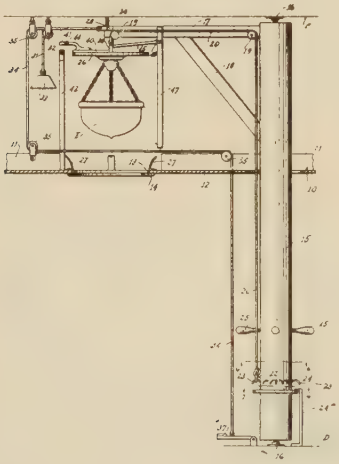
1,418,214. GAME. THOMAS J. SYLVESTER, Philadelphia, Pa. Filed May 28, 1921. Serial No. 473,296. 3 Claims. (Cl. 46—41.)

1. A toy or game, as herein described, comprising a board having a circular depression providing a runway for a sphere, said board having radial depressions forming

pockets which communicate with the runway and into which the sphere is designed to be guided, said board having imprinted thereon opposite each pocket the name of the several States constituting the United States and figures representing the electoral votes of the several States.



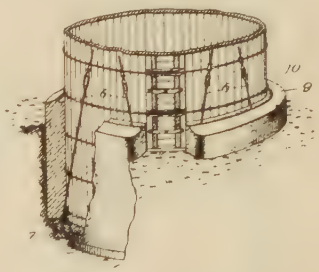
1,418,215. ELECTRIC-FIXTURE-DISPLAY DEVICE. CHARLES K. THEOBALD, Jonesboro, Ark. Filed Oct. 12, 1921. Serial No. 507,319. 14 Claims. (Cl. 211—17.)



1. A display device comprising the combination of a false ceiling having a hole therein, of an upright rotatable post carrying a series of arms located above the false ceiling, flexible members trained over pulleys on the arms and being detachably secured at the lower end of the post, said flexible members carrying fixtures to be displayed, said post being rotatable to bring a selected arm and fixture above the hole whereby the fixture may be subsequently lowered by means of the associated flexible member.

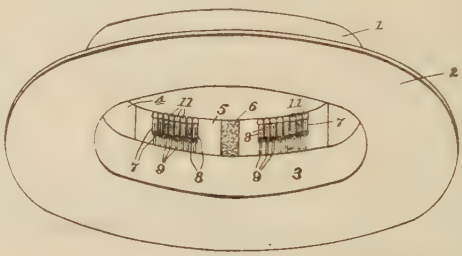
1,418,216. SILO AND METHOD OF ERECTING SILOS. BLANCHARD B. VORSE, Des Moines, Iowa, assignor to Western Silo Company, Limited, a Corporation of West Virginia. Filed May 9, 1917. Serial No. 167,546. 3 Claims. (Cl. 20—1.4.)

1. The method of erecting a silo so as to resist wind action which consists in making in the ground an annular hole having a larger diameter than the finished silo is to have, forming a silo foundation in the bottom of said hole, embedding anchoring means in said foundation during the formation thereof, erecting on said foundation a stave silo, securing in the anchoring means and adjacent



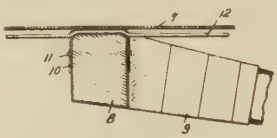
the top of the silo bracing means extending diagonally of said silo, and filling the space between the lower portion of the silo and the surrounding earth wall with concrete, whereby the silo is firmly supported and cannot be distorted or collapsed by wind pressures.

1,418,217. MATCH HOLDER FOR HATS. JOSEPH L. WARNER, Phoenix, Ariz. Filed July 29, 1919. Serial No. 314,034. Renewed Oct. 15, 1921. Serial No. 508,718. 5 Claims. (Cl. 206—20.)



2. The combination with a card to fit in the crown of a hat, of a match holder mounted on said card and comprising a tube of elastic material somewhat smaller in internal diameter than the head of the match, whereby said head will expand the tube when inserted therein and thus be retained in place, a portion of said tube being slit longitudinally to facilitate the removal of the match therefrom.

1,418,218. BOW. GROVER CLEVELAND WELTER, Roswell, N. Mex. Filed Jan. 25, 1921. Serial No. 439,816. 1 Claim. (Cl. 296—118.)

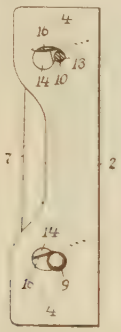


A bow including a body portion, a layer of metal presenting a smooth outer face encircling said body portion adjacent its points of contact with the top covering to be supported by said bow, said metal being formed with openings, the top supporting straps being adapted to pass through said openings and being clamped in this position by means of the body of said metal.

1,418,219. TOWEL CABINET. HARVEY C. WHEELER, Lexington, Mass. Filed Jan. 28, 1921. Serial No. 440,771. 2 Claims. (Cl. 45—32.)

1. A towel cabinet comprising a case having sides, spindles revolubly supported in said sides, and a length of

toweling terminally attached to said spindles and designed to be wound thereon, each spindle having a reduced portion at one end and a neck at its other end, and turning means connected with said neck exterior to the case, one of said sides having holes revolubly receiving said reduced

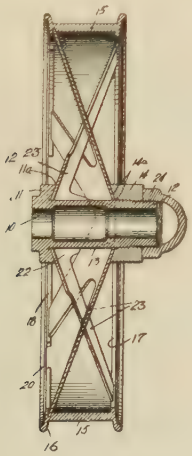


ends, and the other side having two holes for each spindle, one of which holes fits the said neck and the other of which loosely receives both an end of the spindle and the turning means, each small hole opening into its associated large hole, but none of the holes cutting through to the front edge of the cabinet sides.

1,418,220. GOLF BALL. JOHN WHITE, Sunningdale, England. Filed Oct. 22, 1920. Serial No. 418,794. 4 Claims. (Cl. 46—4.)

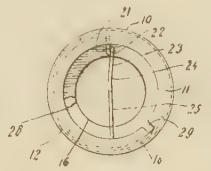
1. A golf ball having a plurality of flat bottomed depressions formed on its outermost surface and having recesses with spherical surfaces formed in the flat bottoms of said depressions, so as to provide intermediate between said surface and lowest point of said recesses a surface that is at least approximately parallel to said outermost surface.

1,418,221. VEHICLE WHEEL. WILLIAM T. WILDER, St. Paul, Minn. Filed Aug. 6, 1920. Serial No. 401,741. 5 Claims. (Cl. 301—64.



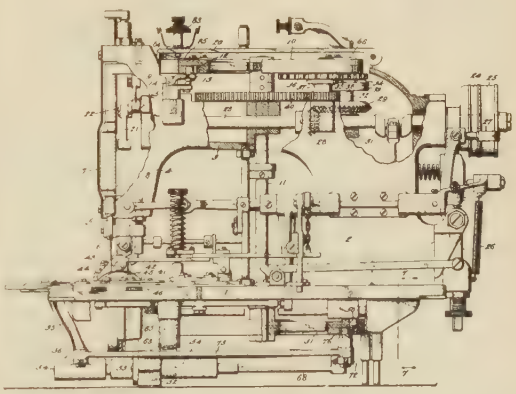
1. A wheel, comprising a hub, a flanged rim provided with gaps, two conical sheet metal spoke members slidably mounted on the hub and having interlocking engagement with the flanges of the rim, and means on the hub for forcing the spoke members toward each other, whereby the spokes will be forced into firm interlocking engagement with the flanges of the rim.

1,418,222. PICTURE FRAME, BUTTON, BADGE, AND THE LIKE. ISAIAH N. ZELLER, Chicago, Ill. Filed Apr. 29, 1919. Serial No. 293,456. 2 Claims. (Cl. 40—1.5.)



1. A button or like article comprising a rigid shell having an opening on its face adapted to display a picture card placed behind it, the outer edge of said shell being turned backward to form an annular rim to hold said card in position, a transparent material permanently secured over said rim and covering the outer surface of said shell and means adapted to detachably seat within said rim and engage said card whereby different cards may be interchangeably received within said button without removing said transparent material.

1,418,223. BUTTONHOLE-SEWING MACHINE. EDWARD B. ALLEN, Newtown, Conn., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a Corporation of New Jersey. Filed Aug. 12, 1920. Serial No. 403,072. 23 Claims. (Cl. 112—73.)

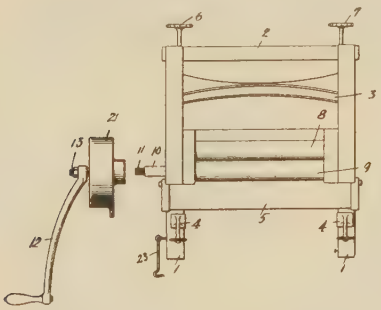


1. A buttonhole sewing machine having, in combination, stitch-forming mechanism, a work-holder, and feeding and barring mechanism for relatively moving the stitch-forming mechanism and work-holder to sew around and bar one end of a buttonhole, said feeding and barring mechanism including means for relatively moving the stitch-forming mechanism and work-holder to and fro repeatedly in an inclined direction across one end of the buttonhole during the barring operation.

1,418,224. GEARING ATTACHMENT FOR CLOTHES WRINGERS. EMIL ARTHURS, Portsmouth, Ohio. Filed Aug. 4, 1920. Serial No. 401,163. 1 Claim. (Cl. 74—34.)

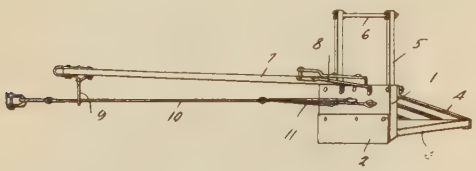
The combination with a main shaft and a support therefor, of an attachment which comprises a gearing

unit adapted to be fastened to one end of said shaft, said unit comprising a collar having a bore, said collar fastened to one end of the shaft, an arm on said collar, a pinion on said arm, a casing adapted to be fixed relative to the support, an internal ring gear on the inner face of the casing, said ring gear meshing with said



pinion, a second pinion meshing with the first-named pinion, a stub shaft on which said second pinion is mounted, said stub shaft being journaled at one end in the bore of said collar, a cover on said casing having an aperture forming a bearing for said stub shaft, and a handle adapted to be fastened to the outer end of said stub shaft.

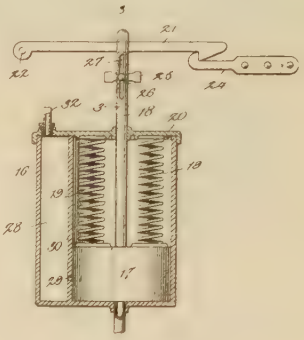
1,418,225. ROAD LEVELER. WILLIAM R. BANWART, West Bend, Iowa. Filed Sept. 23, 1918. Serial No. 255,304. 1 Claim. (Cl. 37—5.)



A road scraper including an upstanding board, a scraper plate secured to the front face thereof and extending below the lower edge of the board and throughout the length of the board, a platform fixed relative to and extending rearwardly from the board close to but above the lower edge of the board, bracing devices connecting the rear portion of the platform to the upper portion of the board, said platform constituting means for supporting the weight of the driver at desired distances from the scraper and at either side of the center thereof, thereby to vary the action of the scraper upon the soil engaged thereby, a draft device connected to the upper portion of the board adjacent the center thereof, said board being obliquely disposed relative to the draft device, and a hand rail fixedly connected to and supported above the board and adapted to be grasped by the driver standing on the platform.

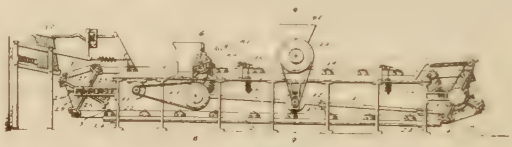
1,418,226. COMBINATION PNEUMATIC LOCKING AND SIGNALING APPARATUS. EDWARD M. BOYLE, Watertown, N. Y. Filed June 25, 1921. Serial No. 480,491. 6 Claims. (Cl. 116—12.)

5. A locking and signaling apparatus including a door-catch, a pivotally mounted latch arranged for engagement and disengagement with said door-catch, a pneumatic device including a chamber, a piston having a rod which piston is movable in said chamber, springs acting on said piston; a member carried by said rod and adjustable thereon with relation to said latch with which it engages upon the upward movement of said rod, and a pneumatic signal device including a passage in communication with the said chamber, and a whistle in operative connection



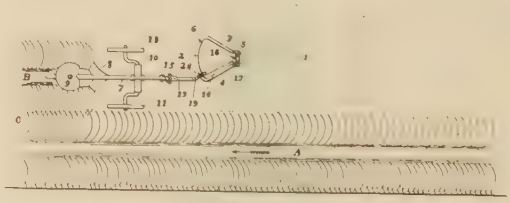
with said passage, the said piston being movable to cut off communication between the said passage and said chamber.

1,418,227. MACHINE FOR FORMING PLASTIC TILE. HOLDEN BROCK, St. Louis, Mo. Filed Feb. 4, 1921. Serial No. 442,467. 9 Claims. (Cl. 25—99.)



1. A machine of the character described including an endless carrier having spaced side bars and cross bars forming a lengthwise series of open material receiving spaces, links between the side bars supporting the said cross bars, a series of form plates constituting removable bases for said spaces, means for feeding the form plates into the successive spaces of the carrier at one point in the length of the latter, means for discharging the form plates from the carrier at another point in the length of the latter, and means between the said points for feeding, working and surfacing plastic material within the carrier spaces on the form plates.

1,418,228. TRACTOR HITCH. THEOPHILUS BROWN, Moline, Ill., assignor to Deere & Company, Moline, Ill., a Corporation of Illinois. Filed Aug. 16, 1919. Serial No. 318,061. Renewed Oct. 28, 1921. Serial No. 511,107. 4 Claims. (Cl. 213—67.)



1. The combination with a tractor drawn implement of a hitching mechanism connecting the implement to the tractor including a segment mounted on the tractor, a drawbar pivotally connected forwardly to the segment and extending rearwardly to pivotal connection with the implement, and means to automatically secure said segment and drawbar together at either end of the segment.

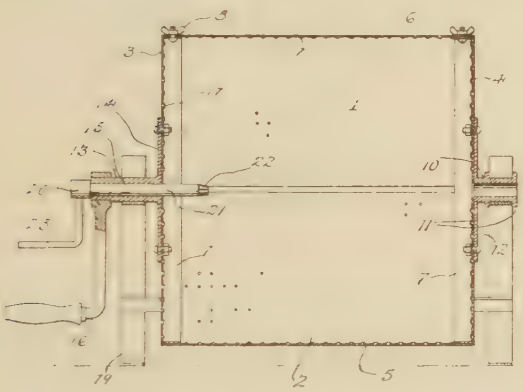
1,418,229. FISH LURE. GEORGE T. BUDDLE, Chicago, Ill. Filed June 22, 1921. Serial No. 479,606. 3 Claims. (Cl. 43—42.)

1. A fishing lure including a body portion having a shoulder formed intermediate its ends, a hook secured to

the body portion and having an eye formed at one end thereof, a shoulder formed on the hook, a fish attracting

means secured to the hook adjacent to the shoulder thereof, and means for securing a fish line to the lure to cause the lure to move through a stream at various angles.

1,418,230. POTATO-PEELING APPARATUS. HUBERT J. CAPELLMAN and ROBERT HAYHURST, South Chicago, Ill. Filed Sept. 25, 1920, Serial No. 412,681. Renewed Apr. 15, 1922. Serial No. 553,010. 3 Claims. (Cl. 146—14.)



In a potato peeling apparatus, a cylindrical receptacle a handle for rotating said receptacle, and a potato eye removing cutter extending through said handle and having its cutting edges disposed within the receptacle

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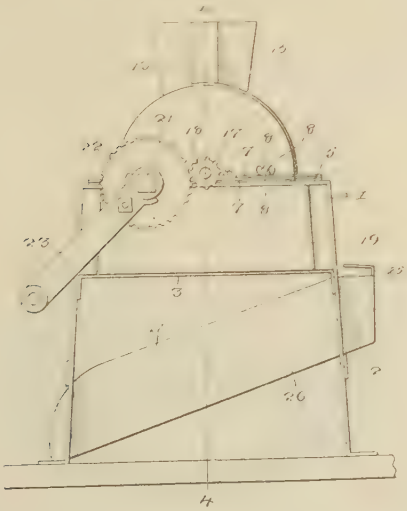
1,418,231. TOMATO MASHER. FRANK CARLINO, Buffalo, N. Y. Filed Dec. 30, 1921. Serial No. 525,846. 1 Claim. (Cl. 146—9)



In a tomato masher, a frame, a cross sectionally rounded receptacle mounted thereon and having its lower rounded face reticulated, said receptacle having an opening at the top on one side thereof, guides surrounding the opening, an arched door received in the guides and normally closing the opening, a tomato delivery hopper at one side of the receptacle, a shaft extending centrally and longitudinally through the receptacle and journaled in bearings on the frame, a downwardly inclined hopper supported on the frame below the reticulated bottom of the receptacle, an arm centrally secured on the shaft, plates adjustably secured to the ends of the arm, wiper strips adjustable between the plates and in contacting engagement with the inner wall of the receptacle, and means on the frame for imparting a rotary motion to the shaft

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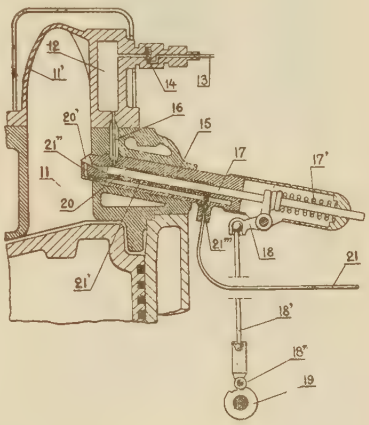
1,418,232. PROCESS AND APPARATUS FOR FUEL INJECTION IN INTERNAL-COMBUSTION ENGINES. LOUIS AUGUSTE CHARLES, Paris, France. Filed Dec. 27, 1921. Serial No. 525,131. 4 Claims. (Cl. 123—33.)



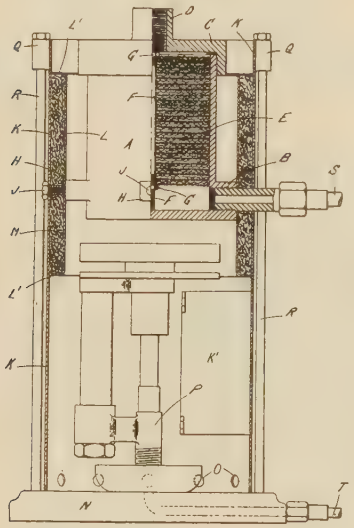
1. In an apparatus of the character described, an internal combustion engine including a compression chomber, an injection gas container, an injector connected with the compression chamber and container, said container being adapted, at the end of the compression period of the engine, to contain air at the same density as the compression chamber, a closing device associated with the injector, means for introducing the fuel into said container immediately after the closing of said closing device, controlling means for thec losing device whereby open communication between the container and compression chamber is maintained during the exhaust period of the engine, and fuel supply means for the injector, said injector being adapted to introduce into and effect spraying of the fuel in the compression chamber by means of hot gas under pressure from the container incident to the opening of the closing device, said controlling means maintaining the closing device in open position from the beginning of the introduction of fuel into the compression chamber until the end of the following compression period of the engine and acting at the end of the compression period to close communication between the compression chamber and the container.

1,418,233. PROCESS FOR PRESERVING IN THE FRESH CONDITION ORGANIC MATTERS AND PARTICULARLY MEAT AND FISH. LOUIS ALBERT CONSTANT CHOLET, Montreuil-sous-Bois, France. Filed Jan. 10, 1921. Serial No. 436,332. 2 Claims. (Cl. 99—14.)

2. A process for the preservation of meat in the fresh state, which consists in subjecting the meat to be preserved to the simultaneous action of a sharp cold but at a temperature not capable of causing the freezing of the meat, that is to say not lower than —1° C., and of a

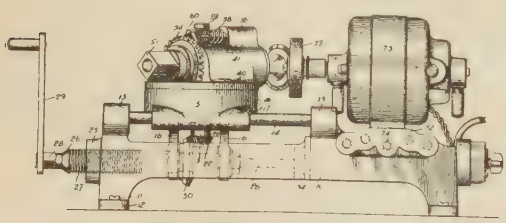
volatile antiseptic gaseous sulphur dioxid for instance, during the entire duration of the refrigeration,—in then subjecting the meat to the action of a current of sterilized air, brought to a temperature of about 50 to 60° C., during a sufficient time for reheating only the surface of the meat and in then gradually lowering the temperature of this current of air.

1,418,234. LIQUID VAPORIZER. EDWIN CLEARY, London, England. Filed Sept. 7, 1921. Serial No. 499,000. 3 Claims. (Cl. 122—501.)



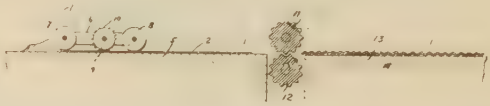
1. An apparatus for use in vaporizing liquids comprising, a tubular vessel closed at both ends and having an inlet at the bottom and an outlet at the top, packing within the vessel consisting of a plurality of centrally apertured wire gauze discs superposed one upon the other with their surfaces held in contact one with another throughout the surfaces of the discs, a rod extending through the apertures in said discs, means for securing the superposed discs on the rod, and a heat generator beneath said vessel.

1,418,235. GRINDING MACHINE. WILLIAM J. COLLINS, Brooklyn, N. Y. Filed May 21, 1921. Serial No. 471,385. 3 Claims. (Cl. 51—106.)



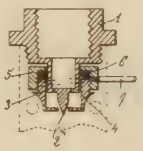
1. A valve grinding device comprising a base, a table movable longitudinally of said base, a valve holder carried by said table, a train of gearing for rotating said valve holder, means for driving said train of gearing, means for engagement with one of the gears of said train of gearing for locking the same against operation, and means for releasing another of the gears of said train of gearing to permit the driving member of the train of gearing to rotate without driving said train of gearing.

1,418,236. PROCESS OF MAKING CORRUGATED WIRE GLASS. WALTER COX and ARNO SHUMAN, Philadelphia, Pa., assignors to Pennsylvania Wire Glass Company, Philadelphia, Pa., a Corporation of New Jersey. Filed Dec. 14, 1920. Serial No. 430,643. 2 Claims. (Cl. 49—86.)



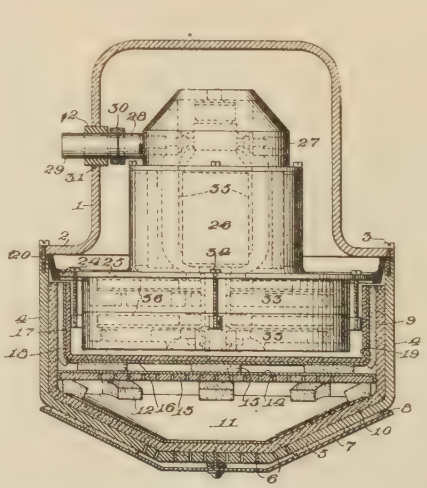
2. The method of making corrugated wire glass which consists in rolling a flat sheet of wire glass with mesh having twists adapted to tighten to increase the distance between them, and while the sheet retains some of its initial heat corrugating the sheet and tightening the twists by passing it between corrugated rollers, substantially as described.

1,418,237. GAS AND AIR REGULATING DEVICE FOR INCANDESCENT MANTLE BURNERS. OTTO PAUL CRAMER, Geneva, Switzerland. Filed Aug. 15, 1921. Serial No. 492,436. 6 Claims. (Cl. 67—121.)



1. A gas and air regulating device for incandescent mantle burners, comprising a burner tube, a cylindrical injector core mounted in the tube and having a smooth periphery and a regulating needle, a regulating socket surrounding the core and having screw-threads formed on its outer periphery, a nut mounted on said threads and having a flanged end, a packing compressed between said flanged end and the end of the socket engaging the periphery of the core and forming a gas-tight connection with the latter, and a pin on the socket engaging an inclined slot in the burner tube.

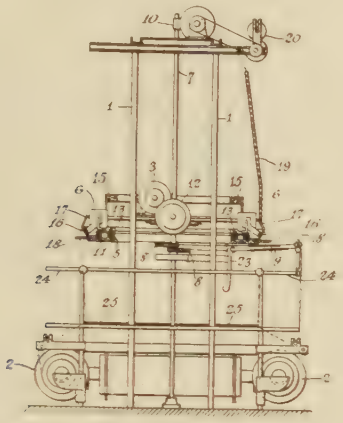
1,418,238. PNEUMATIC POWER GENERATOR. STANLEY S. CRAMER, Camden, N. J. Filed Nov. 2, 1920. Serial No. 421,249. 7 Claims. (Cl. 230—11.)



1. The combination of a sectional container, with a gasket having a portion removably secured between and

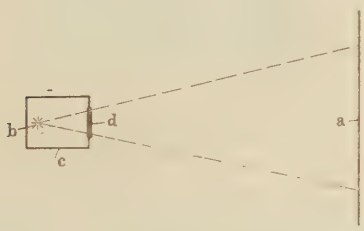
supported by the adjacent portions of said container, and a pump casing supported by another portion of said gasket in spaced relation to the walls of the container.

1,418,239. WEAVING PROCESS AND LOOM THEREFOR. SILVIO BENIGNO CRESPI, Milan, Italy. Filed Mar. 21, 1918. Serial No. 223,861. 2 Claims. (Cl. 139—7.) (Granted under the provisions of the act of Mar. 3, 1921, 41 Stat. L., 1313.)



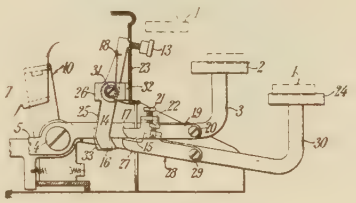
1. A circular loom comprising a center framing having warp beams arranged at the bottom and take-up beams for the finished cloth arranged at the top, devices for collecting the warp threads unwinding from the different warp beams into a single tube, a reed having the same perimeter as the section of the warp tube and designed to form the race for the shuttles, heddle sets, eccentrics for imparting continuous reciprocating motion to said heddle sets, a circular box having a revolving cover as a support for shuttle driving magnets, metal sheets arranged above the cloth formation level and gradually changing from a curved shape at the bottom to a flat shape at the top, and means for cutting the woven fabric into a predetermined number of longitudinal pieces, substantially as and to the purpose set forth.

1,418,240. APPARATUS FOR THE PRODUCTION OF LUMINOUS IMAGES AND THE LIKE. MAURICE CURIE and MARCEL ERNEST VARINOIS, Paris, France. Filed May 19, 1920. Serial No. 382,674. 2 Claims. (Cl. 250—34.)



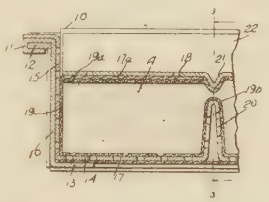
1. An apparatus for carrying out the process of production of luminous images comprising a board on which the invisible designs, images or inscriptions are traced by means of a paint or varnish the base of which is formed of phosphorescent bodies,—any source of light preferably concealed from the view of the spectators,—a screen for selecting the rays, arranged between the source of light and the board covered with invisible images or inscriptions traced by means of the phosphorescent paint, the said screen giving only passage to obscure or invisible rays which, being projected on the said board, produce the permanent excitation of the phosphorescent paint with which are drawn the invisible images or inscriptions and the apparition of luminous images as long as the projection of obscure or invisible rays lasts.

1,418,241. TYPEWRITING MACHINE. WILLIAM A. DOBSON, Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 30, 1920. Serial No. 377,750. 9 Claims. (Cl. 197—80.)



1. In a typewriting machine having a front wall, in combination, a case-shift mechanism, a case-shift key-lever projecting through said front wall, a movable locking member back of the front wall, a lug back of said wall and shiftably supported on said key-lever, and means actuable at the front of said wall for variably adjusting the lug on the lever.

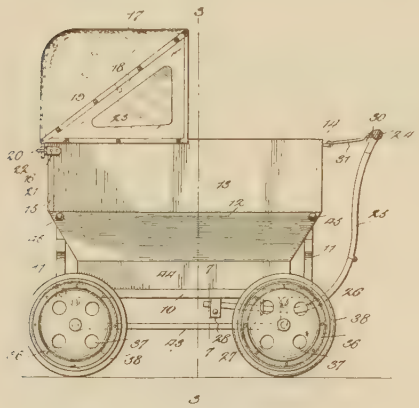
1,418,242. CHEESE MOLD. SAMUEL FIELDMAN, New York, N. Y. Filed Aug. 27, 1921. Serial No. 495,921. 8 Claims. (Cl. 31—21.)



2. A cheese mold including a frame having holes in its sides for the escape of whey, a foraminous element removably fitting in said frame at the bottom and having upturned ends, a foraminous follower plate fitting within said element and adapted to be disposed above the cheese in the mold, and separate elongated pressure strips accommodated in the frame above the follower plate to receive the pressure when the mold is in a press; together with a fabric strip in the mold beneath said foraminous element, said strip having a length to be turned inwardly over the cheese between the latter and the follower plate, and a second fabric strip on top of said foraminous element and disposed at right angles to the first strip, the ends of the second-mentioned strip having a length to be folded at its ends over the first strips.

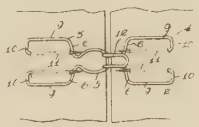
6. A cheese mold including a bottomless frame having perforated sides and a separate perforated element extending across the bottom of said frame and having upturned portions extending laterally outward over the top of the frame and detachably supported by the latter, said upturned portions extending into the frame to lie along the inner faces of the opposite perforated sides of said frame.

1,418,243. FOLDING BABY CARRIAGE. Gerald Forde, New York, N. Y. Filed May 27, 1921. Serial No. 472,989. 2 Claims. (Cl. 280—36.)



1. A baby carriage comprising a foldable handle structure, a foldable hood structure, and a body structure including ends respectively supported by co-operation of said handle structure and hood structure with respective ends.

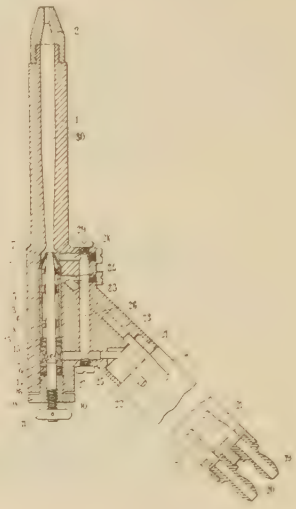
1,418,244. HOOK AND EYE. Mattie D. Forrest, Marion, Ind., assignor of one-half to John H. Forrest, Marion, Ind. Filed Nov. 11, 1920. Serial No. 423,395. 2 Claims. (Cl. 24—88.)



1. A device of the character stated, comprising a hook member and an eye member, each formed of a single piece of wire, the wires forming the members being bent at their intermediate portions to provide engaging hooks and eyes, each of the wires then being flared apart providing shoulders, said shoulders bent to provide keepers, the ends of each wire then extending in parallelism away from the shoulders and including return bends, said wires terminating in parallel pins located between the parallel portions above mentioned, and the free ends of said pins adapted to be held by the keepers.

1,418,245. BLOWPIPE. Edmond Fouché, Paris, France. Filed Dec. 27, 1919. Serial No. 347,668. 6 Claims. (Cl. 158—27.4.)

1. In a gas blowpipe, the combination with a central pipe through which one of the gases passes, of a pipe concentric with the former through which the other gas passes, having a constricted portion of conical form at the upper part of the concentric pipe to deliver the gas in the form of an annular jet and to form an ejector, a chamber in the form of an enlarged pipe forming a mixing chamber for the gases, a nozzle terminating said chamber, a screw regulating device for moving said central pipe

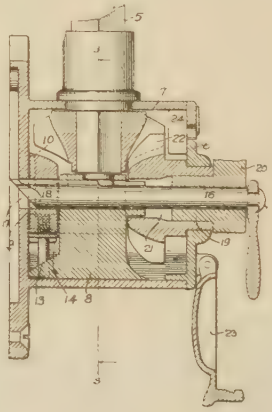


axially, and means for bringing to the base of the mixing chamber a jet of gas perpendicular to the annular jet.

1,418,246. PROCESS OF TREATING GASES. Joseph C. W. Frazer, Baltimore, Md., Arthur B. Lamb, Washington, D. C., and David R. Merrill, Newark, N. J. Filed Feb. 12, 1919. Serial No. 276,635. 21 Claims. (Cl. 23—10.)

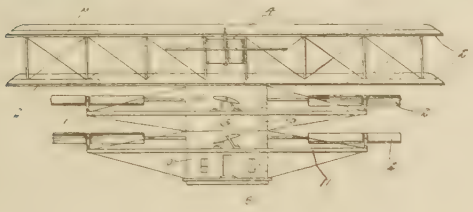
19. In a process of removing from gases catalytic poisons that are more readily oxidized, subjecting said gases to the action of catalysts at temperatures below 100° C.

1,418,247. AWNING BOX. David Froehlich, Brooklyn, N. Y. Filed Jan. 14, 1921. Serial No. 437,337. 1 Claim. (Cl. 74—7.)



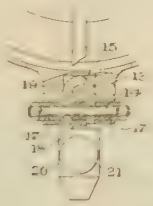
An awning box, including a driving member, a driven member, a dog adapted to engage one of said members, means for normally retaining said dog in projected position, a guide post, said guide post being formed with a key hole, said dog being formed with an opening, and a key adapted to be inserted through said key hole opening and into the dog opening for retracting said dog, said key being formed with a beveled outer end, and a key way secured to said key and co-operating with said key hole opening for preventing a rotation of the same.

1,418,248. COMBINED AEROPLANE AND HELICOPTER. JOSEPH THOMAS FULCHER, Guntersville, Ala. Filed Aug. 6, 1920. Serial No. 401,653. 2 Claims. (Cl. 244—15.)



1. In a flying machine, an upright hollow body of cylindrical form having vertical slots, a motor arranged in the vertical center of the body and having a horizontal drive shaft and a spur gear at the outer end thereof and exteriorly of the body, lower and upper annular drums surrounding and spaced from the body and provided above and below said spur gear with annular racks intermeshed with the same, upper and lower wheels surrounding and carried by said drums, radial rock shafts journaled in said wheels and carrying blades, curvilinear cranks fixed on the inner ends of said rock shafts and arranged at the inner sides of the drums and each carrying spaced anti-friction wheels, adjustable annuli surrounding the body and extending between the anti-friction wheels of said cranks, and vertically-movable manually adjustable brackets arranged at the inner side of the body and connected with said annuli to deflect the same, the connections being disposed and movable in the vertical slots of the body.

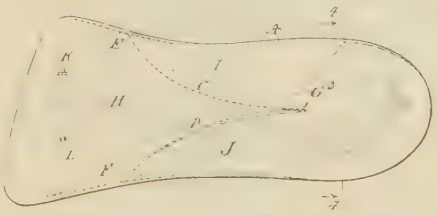
1,418,249. SOUND BOX FOR TALKING MACHINES. ALBERT HARDY GAY, London, England. Filed Apr. 20, 1921. Serial No. 462,817. 1 Claim. (Cl. 274—35.)



A sound box for talking machines having a bifurcated stylus bar bracket, a fulcrum pin mounted in the respective arms of the bracket, a stylus bar mounted on the pin between the arms of the bracket, a strip mounted on the pin on opposite sides of the stylus bar mounting and serving to maintain said stylus bar mounting in a predetermined position longitudinally of the pin and spaced from the arms of the bracket, and an insulating section arranged between the pin and the stylus bar mounting

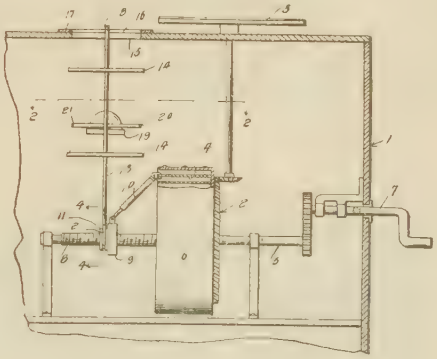
1,418,250. ADJUSTABLE INSOLE. HARRY C. GEORGE, Morris Township, Morris County, N. J., assignor to Arrowsmith Manufacturing Company, Morristown, N. J., a Corporation of New Jersey. Filed Dec. 17, 1917. Serial No. 207,422. 10 Claims. (Cl. 36—71.)

1. A device of the character described, comprising an insole proper of flexible material, a piece of material adapted to be applied thereto and to have its major portion lie on one side of the longitudinal axis thereof, and means for holding the said piece of material located in the interior of the insole, said piece of material having a recess engaged by said holding means, said piece of material being movable to a position in which its major portion lies on the opposite side of said longitudinal axis, and in substantially the same relation to the insole as in



the first position, the said holding means being constructed and arranged to hold the said piece of material in both positions.

1,418,251. PHONOGRAPH ATTACHMENT. SAMUEL J. GINSBURG, Denver, Colo. Filed May 3, 1921. Serial No. 466,552. 4 Claims. (Cl. 185—44.)

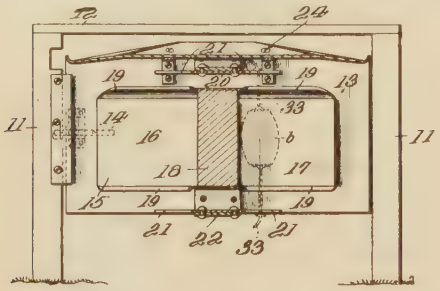


4. In combination, a phonograph including a cabinet and a spring motor having a spring connected to a rotatable shaft and a rotatable casing, feed threads on said shaft, a feed nut on said feed threads and adapted to be moved in one direction by the rotation of said shaft, an adjustable telescopic arm connecting the feed nut to the outer convolution of the spring for causing said feed nut to rotate with the casing and move on the shaft in a direction opposite to the first named direction, a grooved collar formed on said nut, an indicating rod having a forked end engaging the grooved flange, guides carried by the cabinet and receiving the indicating rod, an indicating plate carried by said cabinet, a pointer carried by the indicating rod and movable over the plate, an alarm located in the cabinet, and actuating arms for said alarm and adapted to be engaged by the indicating rod when the latter reaches the approximate end of its movement in either direction.

1,418,252. MAIL-EXCHANGE DEVICE. JOHN E. GLASS, Marion, Ky. Original application filed Feb. 4, 1919, Serial No. 274,947. Divided and this application filed Nov. 26, 1920. Serial No. 426,423. 7 Claims. (Cl. 258—11.)

1. A mail transfer device of the character described comprising supporting means, a receptacle mounted there-

on and having receiving and delivery compartments, the top and bottom walls of said compartments being slotted,

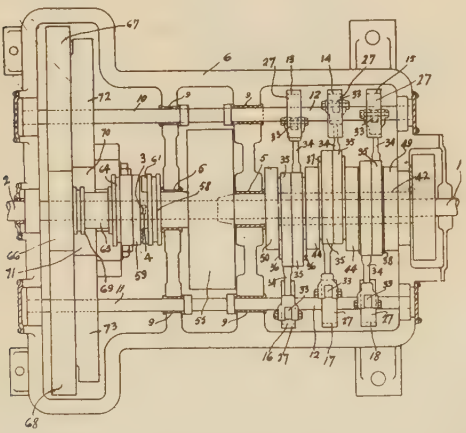


and means independent of the receptacle for supporting a mail sack within said delivery compartment.

1,418,253. METAL-ETCHING COMPOUND. HARRY C. GLEOCKLER, Schuylkill Haven, Pa. Filed May 23, 1921. Serial No. 471,938. 2 Claims. (Cl. 41—43.)

1. A metal etching compound consisting of bluestone, a saline substance, an acid, and water mixed in the approximate proportions as stated.

1,418,254. TRANSMISSION MECHANISM. ROBERT GRANT and JOSEPH STANLEY RUSSELL RIGBY, Vancouver, British Columbia, Canada. Filed Mar. 31, 1920, Serial No. 370,116. Renewed Apr. 18, 1922. Serial No. 555,224. 6 Claims. (Cl. 74—53.)



1. In transmission mechanism, the combination with the driving shaft and driven shaft, of a central gear mounted on said driven shaft to be rotatable therewith and capable of lateral slidable movement thereon, rotatably mounted gears engaging said central gear, rotatably mounted gears adjacent said first mentioned gears and normally out of engagement with said central gear, idler gears normally engaging said second-mentioned gears and into mesh with which the said central gear may be carried by lateral slidable movement, and mechanism adapted for engagement with the driving shaft by which its drive is transmitted by a series of successive impulses to said first and second-mentioned gears coincidently whereby rotation of said central gear is effected in either direction when moved laterally to mesh respectively with the said gears.

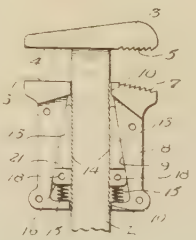
5. Means for transmitting motion from a drive to a driven shaft, comprising a series of interlocked eccentric disks freely mounted on the drive shaft, a series of driven clutches on the driven shaft, eccentric straps operatively connecting said clutches and disks, a sleeve normally free on said drive shaft and having a drive connection with one of said disks and releasable means for clutching the sleeve to the drive shaft to rotate therewith, said means comprising a friction drum carried by the sleeve, a member slidable on the drive shaft and drum engaging means carried by said member adapted to engage the drum upon movement of the member in one direction and to be disengaged with the drum upon movement of the member in the opposite direction.

6. Means for transmitting motion from a drive shaft to a counter shaft comprising a toothed sleeve rotatable on the drive shaft and a series of interlocked eccentric discs having toothed slots receiving the sleeve therethrough, a clutch establishing driving connection between the eccentric disks and the driving shaft, driving clutches on the counter shaft, eccentric straps operatively connected between said clutches and discs, and means for varying the throw of said discs comprising a gear on the toothed sleeve, a series of idler gears meshing with said sleeve gear, and an internal ring gear meshing with said idler gears.

1,418,255. REAMER. HARRY A. GREENLEE, Pawhuska, Okla. Filed Dec. 13, 1920. Serial No. 430,277. 2 Claims. (Cl. 255—73.)

1. A reamer for the purpose set forth, including a shank, a body coextensive therewith, but arranged laterally with respect to one face thereof, a flared wall connecting the body with the shank, a head on the outer end of the shank arranged laterally with respect to the face thereof that is flush with the face of the shank, said head having its face which aligns with the face of the head and shank provided with a V-shaped depression that enters the bottom thereof and that has its walls flared outwardly to provide a pocket, and cutting jaws to the opposite sides of the pocket.

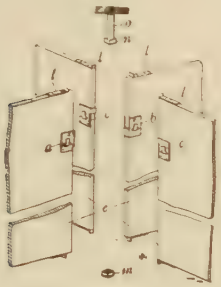
1,418,256. WRENCH. HARRY GUTMAN, Chicago, Ill. Filed July 22, 1921. Serial No. 486,816. 1 Claim. (Cl. 81—148.)



In a wrench, a shank having portions of its edges roughened, a movable jaw on said shank, gripping pawls

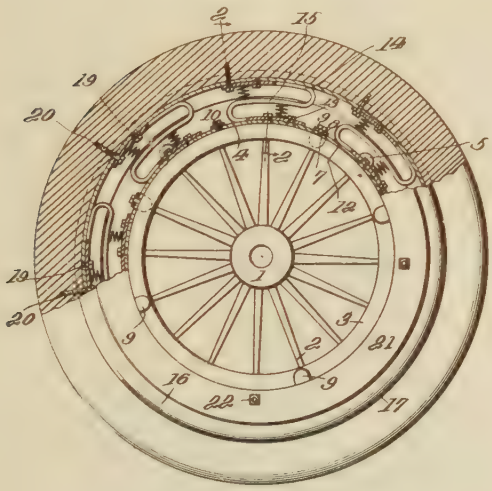
carried within said movable jaw and positioned one upon each side of said shank, said gripping pawls provided with roughened surfaces for gripping engagement with the roughened surfaces of said shank, and springs within said movable jaw and engaging said pawls for normally urging the pawls into gripping engagement with the shank, a slidable plate, pins carried by said plate and engaging said gripping pawls for moving said pawls out of gripping positions upon movement of the plate.

1,418,257. PARTITION CONNECTION. WILLIAM GEORGE HAY, Liverpool, England. Filed Dec. 15, 1920. Serial No. 430,956. 2 Claims. (Cl. 20—4.)



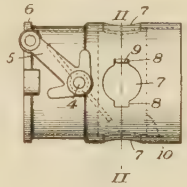
1. In a partition connection, the combination comprising angle pieces for attaching to the upper and lower edges of the partitons, upper and lower sockets for engaging the angle pieces, the lower socket being fixed, and a stem on which the upper socket can slide, substantially as described.

1,418,258. STEEL SPRING TIRE. WINFIELD S. HAYDEN, Palmyra, Mo. Filed Oct. 31, 1919. Serial No. 334,840½. 2 Claims. (Cl. 152—32.)



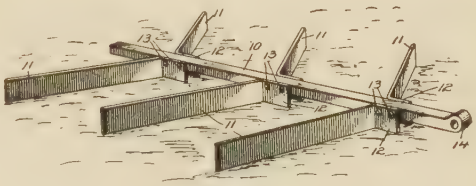
1. A spring steel tire for wheels comprising an inner felly and an outer tire carrying rim, substantially S-shaped springs disposed between said rims having their ends bent to conform to the curvature of said rims and secured thereto by spaced bolts and coil springs disposed between the loops of said S-shaped springs intermediate the spaced bolts.

1,418,259. AIR-INLET-CONTROL DEVICE FOR CARBURETORS. VICTOR R. HEFTLER, Detroit, Mich., assignor to The Zenith Carburetor Company, Detroit, Mich., a Corporation of Michigan. Filed July 15, 1920. Serial No. 396,583. 9 Claims. (Cl. 277—69.)



9. In an air inlet control device for carburetors, a casing having a control means for regulating the flow therethrough, said casing having side holes and an internal expanding band of a sufficient diameter to receive said means and having holes registering with the casing holes and provided with a projection extending through the casing for turning the band, said holes and said band controlling the admission of air to the casing and said first mentioned means thereafter controlling the flow of such air through the casing, substantially as described.

1,418,260. CLOD CRUSHER. CLAIRE C. HOOD, Dore, N. Dak. Filed June 22, 1920. Serial No. 390,693. 1 Claim. (Cl. 97—44.)

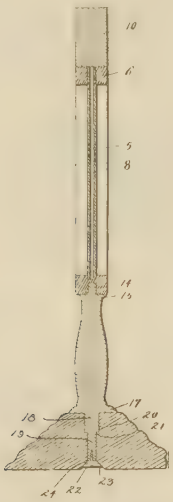


An implement of the class described comprising a central supporting member adapted to be coupled at one end to a moving apparatus, and a plurality of earth engaging blades of greater vertical width than the supporting member and having their inner portions directed forwardly in parallel relation to the supporting member and attached thereby to opposite sides of the same and extending in rearwardly and reversely oblique direction from the supporting member with the earth engaging edges of the blades extending below the lower lines of the supporting member.

1,418,261. DISPLAY STAND FOR DISCHARGE CERTIFICATES. CHARLES L. HOUSEHOLDER, Washington, D. C. Filed June 5, 1919, Serial No. 302,078. Renewed Nov. 3, 1921. Serial No. 512,575. 1 Claim. (Cl. 40—148.)

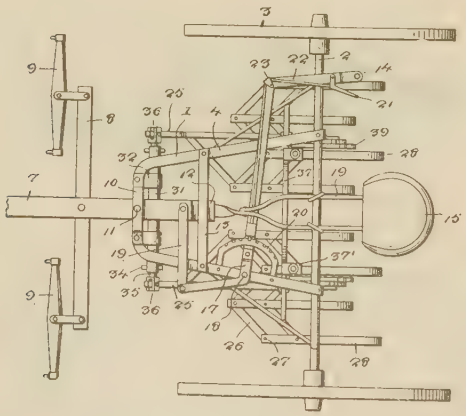
A display stand comprising a frame rectangular in shape and having its upper end open and having the upper ends of its side members beveled, the inner faces of the side members and the bottom member of the frame being grooved, panes of glass slidably engaged within the grooves in said side members and set within the grooves in said bottom member, said panes of glass being spaced apart whereby to accommodate therebetween a sheet to be displayed, a top member for said frame having beveled ends conformingly engaging the beveled upper ends of said

side members and being provided with a slot through which the panes of glass extend, and a cap piece having



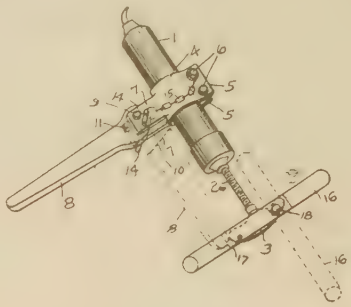
the same length as said top member and carrying dowel pins engaged within sockets in said top member.

1,418,262. HAND-STEERED, WHEELED, CONVERTIBLE CULTIVATOR AND PLANTER. MONROE HUDGENS, Cookeville, Tenn. Filed June 15, 1920. Serial No. 389,169. 3 Claims. (Cl. 278—37.)



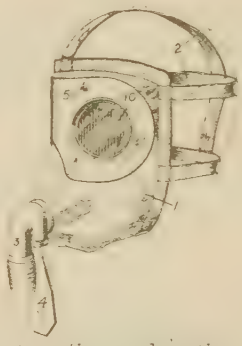
1. A hand steered wheeled construction, comprising an axle, ground wheels carried by the same, a main frame connected to and extending forwardly from the axle, said main frame being of U-shape in plane with the bight of the loop foremost, transverse spaced straps fixed to the main frame in rear of the forward end thereof and forming between them a raceway, a driver's seat supported on the main frame, a tongue pivotally connected at an intermediate point in its length to the forward portion of the main frame, means carried by and extending rearwardly from the tongue and movable in the raceway between the said straps, a hand steering lever arranged in convenient proximity to the driver's seat and fulcrumed at an intermediate point of its length to one side portion of the frame and extending forwardly from said connection; the major portion of said lever extending from the said pivotal connection transversely of the main frame, and a connection between the forward portion of the said hand lever and the rear portion of the tongue.

1,418,263. HOLDER FOR GREASE GUNS. HOMER R. KENNEDY, Los Angeles, Calif., assignor of one-half to G. M. Kennedy and one-half to J. J. Mathe, both of Los Angeles, Calif. Filed Apr. 12, 1921. Serial No. 460,791. 3 Claims. (Cl. 221—54.)



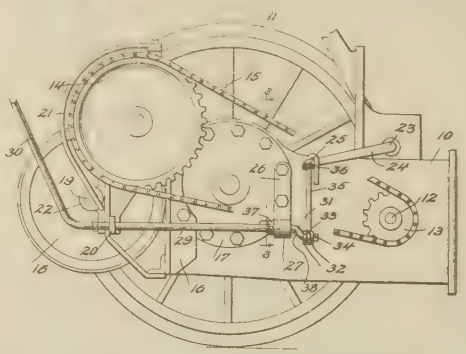
1. In a grease gun holder, a clamp, means for securing said clamp to said grease gun, a lever handle pivotally mounted on said clamp and means for locking said lever handle in a position approximately parallel or approximately transverse to the axis of said grease gun, all substantially as shown and described.

1,418,264. ANTIDIMMER FOR RESPIRATORS AND THE LIKE. ARTHUR B. LAMB, Washington, D. C. Filed June 17, 1920. Serial No. 389,690. 22 Claims. (Cl. 128—141.)



1. Means for preventing condensation of water on substances having one surface exposed to warmer atmosphere than the opposite surface comprising a cooling element serving as a condenser in close proximity to and coextensive with the surface exposed to the warmer atmosphere.

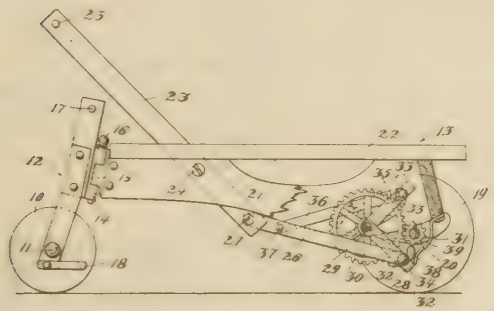
1,418,265. EXTENSION CLUTCH CONTROL. HARRY S. MYERS, Van, Pa. Filed Feb. 15, 1922. Serial No. 536,747. 6 Claims. (Cl. 74—39.)



1. The combination with a tractor having an automotive organization comprising a motor, propelling wheels,

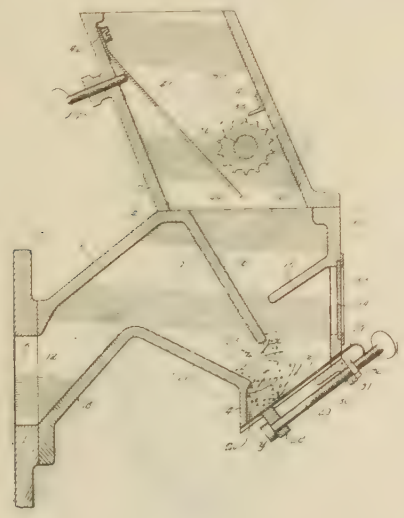
and mechanism for transmitting power from motor to the wheels including a clutch, of a machine separate from the said tractor, transmission mechanism under the control of said clutch for driving said separate machine from the motor of the tractor, and means for controlling the movements of said clutch from a point near said separate machine.

1,418,266. CHILD'S VEHICLE. JOSEPH M. THORPE and WILLIAM C. THORPE, Oakland, Calif. Filed Mar. 17, 1920. Serial No. 366,555. 8 Claims. (Cl. 208—36.)



1. In a vehicle drive of the character described, a shaft, a gear mounted thereon having exterior spur teeth formed around its periphery, a pair of arms adapted to swing about the shaft, means for transmitting a unitary oscillating movement to the arms in opposition to each other, and a pawl pivotally mounted on the outer end of each arm and engageable with the exterior spur teeth of the gear, a driving shaft and a spur pinion secured on said shaft and intermeshing with the first named spur gear.

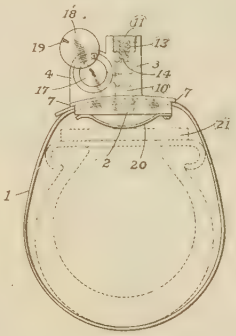
1,418,267. FEEDING APPARATUS. JOHN W. BARWELL, JEROME WARD, NICOLAY NELSON, JOSEPH HINGHER, WALTER E. BOOTH, and WILBUR L. BLOWS, Waukegan, Ill., assignors to Blatchford Calf Meal Company, Waukegan, Ill., a Corporation of Illinois. Filed Apr. 17, 1919. Serial No. 290,723. 8 Claims. (Cl. 83—54.)



1. A feeding apparatus having a conduit for directing a stream of grain downwardly, a conduit for directing a stream of air upwardly to meet the stream of grain to form a rotary movement and a discharge conduit for receiving the air and the grain carried thereby, the arrangement being such that the air will carry all of the grain through the discharge conduit and into a mill or the like while permitting the discharge of heavy objects which will be separated from the grain by the rotary movement of the air and will drop downwardly through the air conduit.

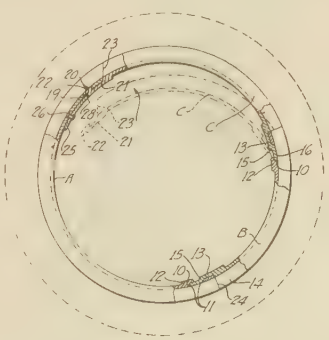
REISSUES.

15,365. TIRE LOCK. WALTER T. CAMPBELL, St. Louis, Mo. Filed June 4, 1921. Serial No. 475,094. Original No. 1,330,167, dated Feb. 10, 1920, Serial No. 318,582, filed Aug. 19, 1919. 12 Claims. (Cl. 70—17.)



12. A spare tire lock for vehicles, comprising an indestructible, flexible member that is adapted to be passed around a tire and the carrier on which it is mounted, a lock case having a passageway that is adapted to receive and hold the end portions of said flexible member in overlapping relation, a concealed key-controlled locking means in said lock case adapted to pass through the overlapped portions of said member, and a resilient device on said lock case that is adapted to engage the tire carrier, for the purpose described.

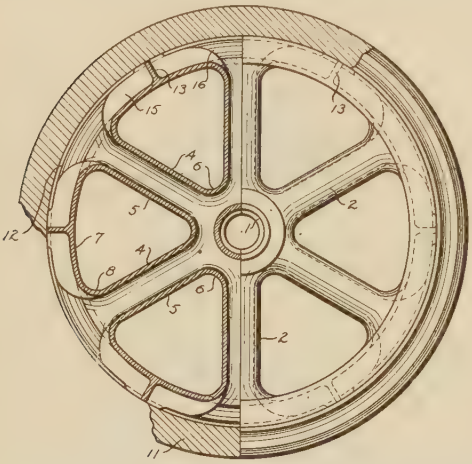
15,366. COLLAPSIBLE RIM FOR PNEUMATIC TIRES. WARREN E. DRESSEL, deceased, late of Edwardsville, Ill., by The Dressel Collapsible Rim Manufacturing Company, St. Louis, Mo., a Corporation of Missouri, assignee. Filed July 19, 1920. Serial No. 397,517. Original No. 1,264,622, dated Apr. 30, 1918, Serial No. 146,794, filed Feb. 5, 1917. 2 Claims. (Cl. 301—31.)



1. A collapsible rim for tires, comprising a plurality of segments, one of which has a tongue at each end, another of which has a slot at each end, and the third of which has a slot at one end and a tongue at the other end.

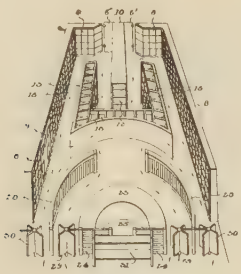
one of said slots having parallel walls beveled outward and towards the adjacent end of its segment, the coacting tongue having a locking lug beveled to fit said slot, and a cam pivoted on the end of said last mentioned segment adjacent said slot and adapted to engage over said lug and bear against the end of the tongue.

15,367. TRUCK WHEEL. ALFONSO M. LEONI, Baltimore, Md., assignor, by mesne assignments, to The Dayton Steel Foundry Company, Dayton, Ohio. Filed May 3, 1921. Serial No. 466,597. Original No. 1,201,597, dated Oct. 17, 1916, Serial No. 88,393, filed Apr. 1, 1916. 11 Claims. (Cl. 301—65.)



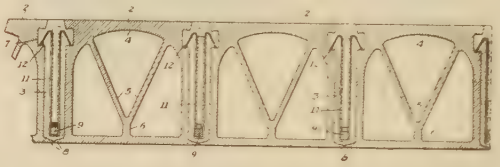
1. As a new article of manufacture an integral metal wheel having a hub, a plurality of substantially tubular spokes disposed radially from said hub, a rim having an inner circumferential wall, the forward and rear walls of said spokes extended in broadly sweeping curves merging into the said circumferential wall of said rim, said rim having integral side walls extending substantially in the plane of the wheel, and having separated webs projecting inwardly from the outer edges of the side walls of said rim for supporting a rim on said wheel.

15,368. SELF-SERVING STORE. WILLIAM B. MCCARTY, Jackson, Miss. Filed Apr. 7, 1922. Serial No. 550,466. Original No. 1,348,024, dated July 27, 1920, Serial No. 302,451, filed June 7, 1919. 7 Claims. (Cl. 211—8.)



2. In a store for the vending of merchandise, a storage inclosure provided with merchandise holders extending along its side walls, said inclosure having an attendant's desk in the middle of its front portion, a merchandise holder extending from the middle of the rear portion of the inclosure toward the said attendant's desk, a substantially U-shaped merchandise holder having its bight portion disposed between and spaced from said desk and from the said merchandise holders a distance to permit persons to pass therebetween, all parts of said U-shaped merchandise holder being sufficiently low to permit an attendant at said desk to see persons on all sides of said U-shaped merchandise holder, partitions extending from points between said U-shaped merchandise holder and attendant's desk to points between said side walls and said attendant's desk to form walled entrance passages and exit passages, exclusively entrance gates in said entrance passages, and exclusively exit gates in said exit passages, the latter being between said partitions and the said attendant's desk.

15,369. TILE FOR FLOOR STRUCTURES. JULIUS H. TOUPET, Pittsburgh, Pa. Filed Mar. 1, 1922. Serial No. 540,267. Original No. 1,404,710, dated Jan. 24, 1922, Serial No. 779,139, filed July 15, 1913. 11 Claims. (Cl. 72—66.)



9. In a building structure, a hollow tile having a top wall consisting of an arched span increased in thickness from its center towards each side, whereby pressure thereon will be converted into lateral thrust and grooves extending through the exterior faces of the side walls into the thickened portions of the arched span.

DESIGNS.

61,009. ICELESS REFRIGERATOR. GENNARO A. AMATO, New York, N. Y., assignor to Usnoice Refrigerating Corporation, New York, N. Y., a Corporation of New York. Filed June 24, 1920. Serial No. 391,547. Term of patent 3½ years.

The ornamental design for an iceless refrigerator substantially as shown.

61,010. VOTIVE STAND. ROSARIO COCO, Brooklyn, N. Y. Filed Mar. 14, 1922. Serial No. 1,170. Term of patent 14 years.

The ornamental design for a votive-stand, as shown.

61,011. LOOP FOR LIGHTING FIXTURES. THURE DAHL, New York, N. Y., assignor to Lightolier Company, a Corporation of New York. Filed Dec. 30, 1920. Serial No. 434,158. Term of patent 3½ years.

The ornamental design for a loop for lighting fixtures as shown.

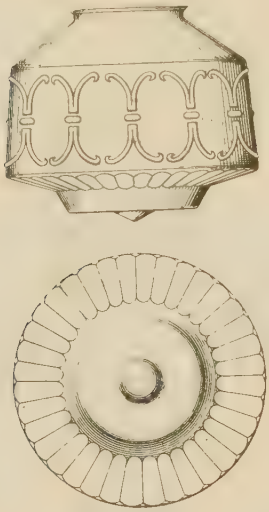
61,012. BOTTLE. WALTER G. EISENMAYER, Los Angeles, Calif. Filed Sept. 16, 1921. Serial No. 501,209. Term of patent 14 years.

The ornamental design for a bottle as shown.

61,013. DOLL. EUGENE ELLERY, Jr., New York, N. Y. Filed Mar. 25, 1922. Serial No. 1,387. Term of patent 7 years.

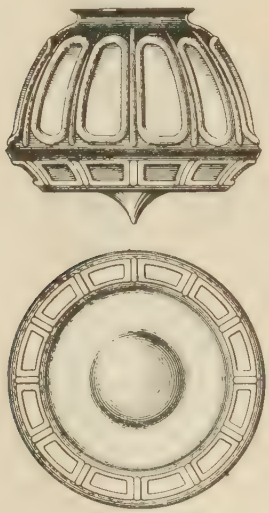
The ornamental design for a doll, as shown.

61,014. GLASS LIGHTING BOWL. EDGAR A. GILLINDER, Philadelphia, Pa., assignor to Gillinder & Sons, Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 13, 1921. Serial No. 522,156. Term of patent 3½ years.



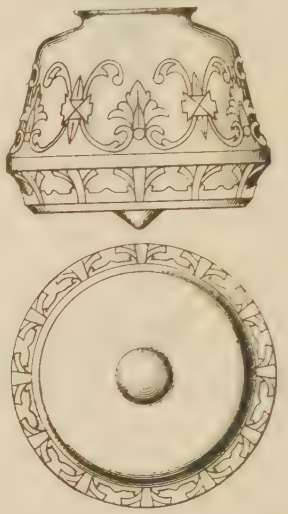
The ornamental design for a glass lighting bowl, as shown.

61,015. GLASS LIGHTING BOWL. EDGAR A. GILLINDER, Philadelphia, Pa., assignor to Gillinder & Sons, Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 13, 1921. Serial No. 522,157. Term of patent 3½ years.



The ornamental design for a glass lighting bowl, as shown.

61,016. GLASS LIGHTING BOWL. EDGAR A. GILLINDER, Philadelphia, Pa., assignor to Gillinder & Sons, Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 13, 1921. Serial No. 522,159. Term of patent 3½ years.



The ornamental design for a glass lighting bowl, as shown.

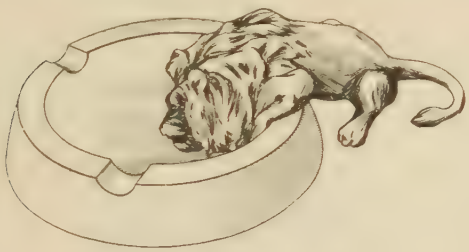
61,017. SOLE OF A RUBBER BOOT OR SHOE. EUGENE C. HEILHECKER, Bristol, R. I., assignor to United States Rubber Company, a Corporation of New Jersey. Filed Dec. 27, 1921. Serial No. 525,260. Term of patent 14 years.

The ornamental design for a sole of a rubber boot or shoe, as shown.

61,018. COMBINED LAMP STAND AND SMOKING SET. SIDNEY M. ISRAEL, Richmond Hill, N. Y. Filed Apr. 14, 1921. Serial No. 461,420. Term of patent 3½ years.

The ornamental design for a combined lamp stand and smoking set, as shown.

61,019. ASH TRAY. HARRY NEGBAUR, New York, N. Y., assignor to E & J Bass, Incorporated, a Corporation of New York. Filed Nov. 3, 1921. Serial No. 512,666. Term of patent 7 years.

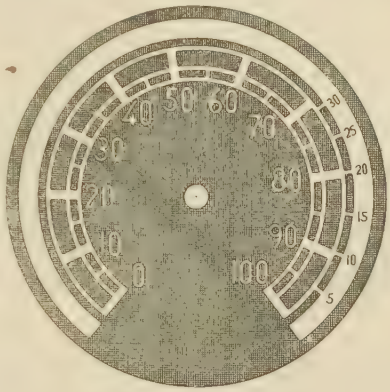


The ornamental design for an ash tray substantially as shown and described.

61,020. ARM FOR A CHANDELIER BODY. FREDERICK MAX PORITZ, New York, N. Y., assignor to Star Chandelier Company, Inc., New York, N. Y., a Corporation of New York. Filed Aug. 16, 1921. Serial No. 492,844. Term of patent 3½ years.

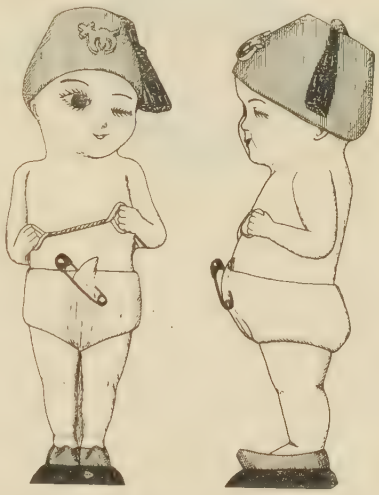
The ornamental design for an arm for a chandelier body, as shown.

61,021. DIAL PLATE FOR TEMPERATURE-INDICATING INSTRUMENTS. HERMAN SCHLAICH, Long Island City, N. Y. Filed Mar. 9, 1921. Serial No. 450,982. Term of patent 14 years.



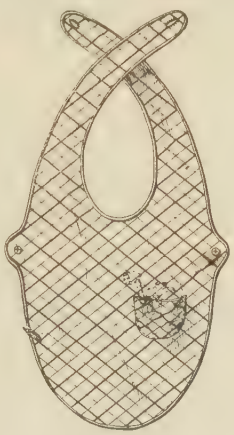
The ornamental design for a dial plate for temperature indicating instruments, as shown.

61,022. DOLL. FRANK W. SHARP, Columbus, Ohio. Filed Mar. 13, 1922. Serial No. 1,152. Term of patent 3½ years.



The ornamental design for a doll, as shown.

61,023. CHILD'S SOAP-BUBBLE APRON. MAZIE T. WATERS, Waco, Tex. Filed Feb. 9, 1921. Serial No. 443,729. Term of patent 3½ years.

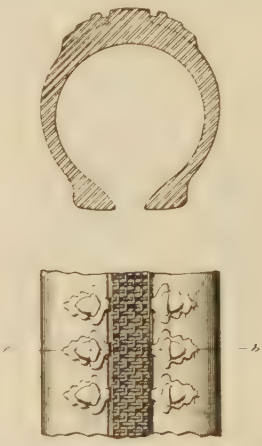


The ornamental design for a child's soap bubble apron, as shown.

61,024. CURTAIN AND SHADE BRACKET. GEORGE WONSOWICZ, Forks, N. Y., assignor of one-half to Henry J. Ralicki, Forks, N. Y. Filed Jan. 27, 1921. Serial No. 440,505. Term of patent 7 years.

The ornamental design for a curtain and shade bracket, as shown.

61,025. TIRE. CASIMIR ZEGLEN, Chicago, Ill. Filed Aug. 25, 1920. Serial No. 406,026. Term of patent 3½ years.



The ornamental design for a tire, substantially as shown.

TRADE-MARKS

OFFICIAL GAZETTE, MAY 30, 1922.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this publication.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 119,073. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) JAMES S. KIRK & COMPANY, Chicago, Ill. Filed May 31, 1919.

Victory

Particular description of goods.—Toilet, Bath, and Laundry Soap.

Claims use since on or about Dec. 8, 1917.

Ser. No. 119,159. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) THE GRATON & KNIGHT MANUFACTURING COMPANY, Worcester, Mass. Filed June 3, 1919.

CRESCENT

Particular description of goods.—Lace Leather and Cut Laces of Leather.

Claims use since 1905.

Ser. No. 126,371. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) GRAPE OLA PRODUCTS CORPORATION, New York, N. Y. Filed Dec. 23, 1919.

Grape Ola
SPARKLET

Particular description of goods.—Nonalcoholic Maltless Beverage Sold as a Soft Drink.

Claims use since Aug. 1, 1916.

Ser. No. 130,335. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE NUNNER AND ASHTON COMPANY, Cincinnati, Ohio. Filed Mar. 20, 1920.

No claim being made to the descriptive word "Betermade" except in form and association shown in the drawing.

Particular description of goods.—Household and Office Furniture, Plain and Upholstered; Kitchen, Dining-Room, and Library Rockers; Lawn Benches, Settees; Kitchen, Dining, and Library Tables; Bedsteads, Couches, Cots, Mattresses, Sofas, Dressing Stands, Chiffoniers, Bureaus, Kitchen Cabinets, Clothes Racks, Clothes and Umbrella Stands, Portable Closets, Music Cabinets, Desks, and Bookcases.

Claims use since Feb. 26, 1914.

Ser. No. 136,609. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) STANDARD COMB COMPANY, Leominster, Mass. Filed Aug. 28, 1920.

PYROXY-LOID

Particular description of goods.—Combs, Pendants, Hair Ornaments, and Bag Frames of Celluloid.

Claims use since Apr. 10, 1920.

Ser. No. 137,542. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANK B. RICKETTS, doing business as Colonial Drug Co., Tulsa, Okla. Filed Sept. 23, 1920.

LITTLE BROWN MOVIES

Particular description of goods.—Remedy for Sick Headache, Dyspepsia, Constipation, Biliousness, and Disorders That Arise from an Inactive Liver.

Claims use since on or about Sept. 1, 1916.

Ser. No. 138,915. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) MILWAUKEE-WAUKESHA BREWING COMPANY, Waukesha, Wis. Filed Oct. 28, 1920.

FOX HEAD

Particular description of goods.—Maltless Cereal Sirup for Beverages.
Claims use since July 14, 1908.

Ser. No. 138,916. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) MILWAUKEE-WAUKESHA BREWING COMPANY, Waukesha, Wis. Filed Oct. 28, 1920.

FOX HEAD

Particular description of goods.—Malt Sirup for Beverages.
Claims use since July 14, 1908.

Ser. No. 139,167. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WALTER LINDSEY, Toronto, Ontario, Canada. Filed Nov. 4, 1920.

Right ~ O

Particular description of goods.—A Blood and Nerve Tonic in Tablet Form.
Claims use since Jan. 29, 1910.

Ser. No. 140,192. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) MCCROSKY BROS., Oakland, Calif. Filed Nov. 26, 1920.

"Rock-A-Bye-Dolly"

No claim is made to the word "Dolly" apart from mark shown in drawing.
Particular description of goods.—Doll Heads.
Claims use since Sept. 11, 1920.

Ser. No. 140,792. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) FEDERAL ELECTRIC COMPANY, Chicago, Ill. Filed Dec. 8, 1920.

FEDERAL

Particular description of goods.—Phonographs.
Claims use since Sept. 17, 1920.

Ser. No. 142,246. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) THE DOERMANN-ROEHRER CO., Cincinnati, Ohio. Filed Jan. 14, 1921.

The DOERMANN-ROEHRER Co. QUALITY WITH SERVICE DoRo CINCINNATI, O.

Exclusive right to use the terms "Quality with Service" and "Cincinnati, O.," apart from the mark shown is disclaimed.
Particular description of goods.—Belting, Hose, Machinery Packing, and Nonmetallic Tires.
Claims use since 1911.

Ser. No. 142,355. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) L. J. MUELLER FURNACE CO., Milwaukee, Wis. Filed Jan. 17, 1921.

CONVECTOR

Particular description of goods.—Hot-Air Furnaces.
Claims use since Jan. 5, 1921.

Ser. No. 142,423. (CLASS 37. PAPER AND STATIONERY.) SAN ANTONIO DRUG CO., San Antonio, Tex. Filed Jan. 18, 1921.

FIDELITY CALCO

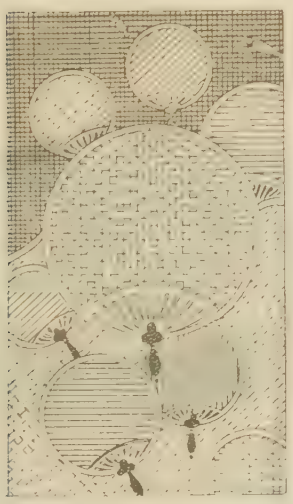
Particular description of goods.—Waxed Paper, Wrapping Paper, Crepe Paper, Tissue Paper, and Toilet Paper.
Claims use since Jan. 1, 1914.

Ser. No. 142,563. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LEON MAURICE LABORATORIES, Montgomery, Ala. Filed Jan. 21, 1921.

FRANCINE

Particular description of goods.—Eczema Remedy, Face Lotions, Face Powders, Perfumes, and Salves Used in the Treatment of Eczema and Different Skin Diseases.
Claims use since Oct. 18, 1920.

Ser. No. 142,717. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ODORONO COMPANY, Cincinnati, Ohio. Filed Jan. 24, 1921.



The trade-mark is imprinted in purple, blue, orange, yellow, and red.
Particular description of goods.—Depilatories.
Claims use since June 15, 1920.

Ser. No. 143,827. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE MAHONING FOUNDRY CO., Youngstown, Ohio. Filed Feb. 19, 1921.

MAHONING
FURNACES
WRIGHT

No claim is made to the exclusive use of the words "Mahoning" and "Furnaces" apart from the mark as illustrated in the drawing.
Particular description of goods.—Coal, Wood, Gas, and Oil Furnaces and Stoves.
Claims use since Feb. 1, 1921.

Ser. No. 143,832. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) ATTILIO PIERINI, doing business as The Great Northern Fur Dyeing & Dressing Co., Brooklyn, N. Y. Filed Feb. 19, 1921..

NUTRIETTE

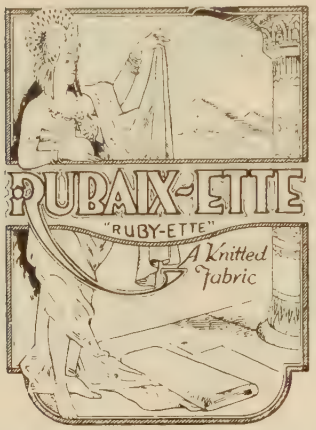
Particular description of goods.—Furs Dyed to Resemble Nutria.
Claims use since Jan. 11, 1921.

Ser. No. 144,787. (CLASS 45. BEVERAGES, NONALCOHOLIC.) J. L. REESE, INC., Albany, N. Y. Filed Mar. 15, 1921.

FORT ORANGE BRAND

No claim being made to the word "Brand" apart from the mark shown.
Particular description of goods.—Maltless Flavoring Sirups Used in the Preparation of Soft Drinks.
Claims use since Mar. 1, 1921.

Ser. No. 145,794. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PROGRESSIVE KNITTING WORKS, INC., Brooklyn, N. Y. Filed Apr. 6, 1921.



No claim is made to the words "Knitted Fabric" apart from the mark.

Particular description of goods.—Silk, Wool, and Cotton Fabrics Knitted in the Piece.

Claims use since Jan. 1, 1920.

Ser. No. 146,033. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE PURE OIL COMPANY, Columbus, Ohio. Filed Apr. 11, 1921.

Particular description of goods.—Dry Cleaner.

Claims use since Apr. 1, 1921.

Ser. No. 146,267. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) C. G. METCALFE, Georgiana, Ala. Filed Apr. 16, 1921.

ASPIRILIK

Particular description of goods.—Medicine for the Treatment of Headache and Neuralgia, for Pains in La Grippe, and for Similar Aches and Pains.

Claims use since Oct. 10, 1920.

Ser. No. 146,788. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AKTIEN-GESELLSCHAFT VEREINIGTE BERNER & ZÜRCHER CHOCOLADE-FABRIKEN LINDT & SPRÜNGLI, Kilchberg near Zurich and Berne, Switzerland. Filed Apr. 27, 1921.

No claim is made to exclusive use of words "Chocolate, The Eating Chocolate De Luxe" apart from the mark shown, the picture of the girl being fanciful.

Particular description of goods.—Chocolate Candy.

Claims use since 1913.

Ser. No. 147,877. (CLASS 45. BEVERAGES, NONALCOHOLIC.) H. P. HOOD & SONS, INC., Boston, Mass. Filed May 18, 1921.

JERSEY BELLE

"Jersey Belle" trade-mark.

Particular description of goods.—Carbonated Soft Drinks and Sirups.

Claims use since Mar. 1, 1921.

Ser. No. 148,185. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TISGOOD PRODUCTS, INC., St. Louis, Mo. Filed May 24, 1921.

No claim is made to word "Tisgood" apart from other features of mark. The picture of child is fanciful.

Particular description of goods.—Olives, Fruit Jelly, Fruit Jam, Apple Butter, Fruit Preserves, Peanut Butter, and Chili Sauce.

Claims use since March, 1921.

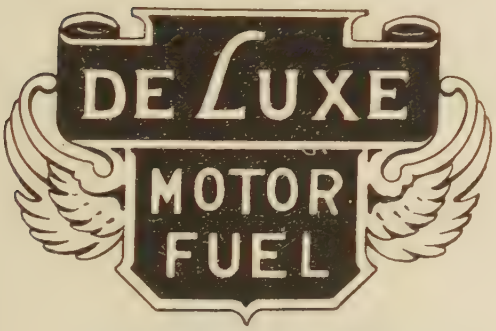
Ser. No. 149,796. (CLASS 15. OILS AND GREASES.) HENRY H. CROSS COMPANY, Chicago, Ill. Filed June 29, 1921.

No claim being made to the exclusive use of the word "Gasoline" apart from the mark as shown.

Particular description of goods.—Gasoline, Naphtha, Fuel Oils, Kerosene, and Gas Oils.

Claims use since June 7, 1921.

Ser. No. 149,797. (CLASS 15. OILS AND GREASES.) HENRY H. CROSS COMPANY, Chicago, Ill. Filed June 29, 1921.



No claim being made to the exclusive use of the words "Motor Fuel" apart from the mark as shown.

Particular description of goods.—Gasoline, Naphtha, Fuel Oils, Kerosene, Distillates, and Gas Oils.

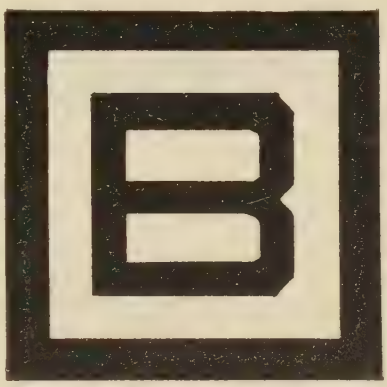
Claims use since June 7, 1921.

Ser. No. 150,008. (CLASS 12. CONSTRUCTION MATERIALS.) JOHN W. FERGUSON COMPANY, Paterson, N. J. Filed July 5, 1921.

Particular description of goods.—Reinforced Concrete, Brick, Timber, and Structural Steel for the Construction of Buildings.

Claims use since Feb. 1, 1921.

Ser. No. 150,127. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) AMERICAN TRIPOLI COMPANY, Seneca, Mo. Filed July 8, 1921.



Particular description of goods.—Buffing Compounds.

Claims use since Jan. 1, 1921.

Ser. No. 150,625. (CLASS 33. GLASSWARE.) McKEE GLASS COMPANY, Jeannette, Pa. Filed July 19, 1921.

The words "Mfg. by McKee Glass Co., Jeannette, Pa." are disclaimed apart from the mark shown.

Particular description of goods.—Glass Baking Vessels.

Claims use since November, 1920.

Ser. No. 150,716. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) JOHN WANAMAKER, NEW YORK. New York, N. Y. Filed July 20, 1921.

RED FLASH

Particular description of goods.—Golf Balls.
Claims use since Feb. 8, 1916.

Ser. No. 150,780. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) SAMSTAG & HILDER BROS., New York, N. Y. Filed July 21, 1921.

SHAR-PEDGE

No claim being made to the exclusive use of the words "Sharp" and "Edge" apart from the mark shown in drawing.
Particular description of goods.—Scissors.
Claims use since June 2, 1921.

Ser. No. 150,782. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JERLEENE B. SHARP, doing business as Admiral Co., Los Angeles, Calif. Filed July 21, 1921.

Admiral

The lines in the flag on mark designate shading.
Particular description of goods.—Hair Restorer.
Claims use since May 28, 1921.

Ser. No. 150,884. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES ZURAY, doing business as Fracello Remedy Co., Chicago, Ill. Filed July 23, 1921.

Fracello

Particular description of goods.—Medicines—to wit, a Cough Syrup or Cough Balsam, a Liniment Used for the Relief of Rheumatism, Neuralgia, Spinal Complaint, Toothache, Sprains, Strains, Swollen Joints, Pains, Aches, Etc.; Fracello Oil Used for the Relief of Rheumatism, Sciatica, Lumbago, Painful Joints, Gout, Cold in Chest, Sore Throat, Inflamed Tonsils, Quinsy, Neuralgia, Insect Stings, Swellings, Inflammation, Sore Feet, Toothache, Etc.; Camphor Compound Ointment Used for the Relief of Rheumatism, Gout, Lumbago, Pain in the Joints and Muscles, Backache, Asthma, Pleurisy, Sore Throat, Tonsillitis, La Grippe, Sprains, Swellings, and Various Bruises.
Claims use since Feb. 1, 1919.

Ser. No. 150,907. (CLASS 33. GLASSWARE.) MCKEE GLASS COMPANY, Jeannette, Pa. Filed July 25, 1921.

LIBERTY

Particular description of goods.—Glass Baking Vessels.
Claims use since November, 1920.

Ser. No. 151,304. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) GUY E. BRIGNALL, doing business as Rex Mineral Soap Company, Aurora, Ill. Filed Aug. 3, 1921.

REX

Particular description of goods.—Mineral Soap.
Claims use since Jan. 2, 1915.

Ser. No. 151,371. (CLASS 39. CLOTHING.) NAZARETH WAIST CO., Nazareth, Pa. Filed Aug. 4, 1921. Under section 9 of the act of Mar. 19, 1920.

NAZARETH

Particular description of goods.—Waist Union Suits. Union Suits, Undershirts, and Drawers.
Claims use since on or about January, 1903, on waist union suits; since on or about November, 1907, on union suits, and since on or about February, 1908, on undershirts and drawers.

Ser. No. 151,741. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) WHITMAN SHOE POLISH MFG. CO. Whitman, Mass. Filed Aug. 12, 1921.

THE MARATHON

Particular description of goods.—Shoe Polish.
Claims use since June 27, 1921.

Ser. No. 151,887. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HARRY A. PARRISH, doing business as The Pyramid Products Co., Berkeley, Calif. Filed Aug. 17, 1921.

MYSTERY

Particular description of goods.—Scalp Tonic.
Claims use since Apr. 4, 1921.

Ser. No. 152,147. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WIENER & BIEBER, San Francisco, Calif. Filed Aug. 24, 1921.

Sweet Memory

Particular description of goods.—Candies.
Claims use since December, 1916.

Ser. No. 152,307. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RACHEL W. BROWN, Detroit, Mich., assignor to Henry H. Simons, Detroit, Mich. Filed Aug. 29, 1921.

BREZO

Particular description of goods.—Medicines for Eczema, Itching Piles, Dandruff, Pimples, Rash, Fever Sores, Salt Rheum, Ringworms, Poison Ivy, Barber's Itch, Scaly Diseases, and Itching Diseases of the Skin.
Claims use since the early part of 1906.

Ser. No. 152,368. (CLASS 45. BEVERANGES, NON ALCOHOLIC.) FRANK HARWELL, Atlanta, Ga. Filed Aug. 30, 1921.

ORANGE COLA

Particular description of goods.—Non-alcoholic, Maltless Beverage Sold as a Soft Drink.
Claims use since April, 1921.

Ser. No. 152,513. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) R. MILTON LEWIS COMPANY, Detroit, Mich. Filed Sept. 2, 1921.

R. MILTON LEWIS M.D.

Trade-mark consists of the words "R. Milton Lewis, M. D.," and the picture of Dr. Lewis (deceased).
Particular description of goods.—Medicines for the Treatment of Tuberculosis.
Claims use since latter part of 1895.

Ser. No. 152,525. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) VEREINIGTE CHININFABRIKEN ZIMMER & CO., Gesellschaft mit beschränkter Haftung, Frankfort on the Main, Germany. Filed Sept. 2, 1921.

Eucupin

Particular description of goods.—Bactericide and Antiseptic Preparations.
Claims use since June 17, 1913.

Ser. No. 152,526. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) VEREINIGTE CHININFABRIKEN ZIMMER & CO. GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Frankfort-on-the-Main, Germany. Filed Sept. 2, 1921.

Vuzin

Particular description of goods.—Bactericide and Antiseptic Preparations.
Claims use since Nov. 6, 1917.

Ser. No. 153,437. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) COLONIAL RUG COMPANY Waltham, Mass. Filed Sept. 28, 1921.

NORUMBEGA

Trade-mark "Norumbega."
Particular description of goods.—Rugs Made of Wool and Cotton and Carpets.
Claims use since June 1, 1921.

Ser. No. 153,450. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) DUPLAN SILK CORPORATION, New York, N. Y. Filed Sept. 28, 1921.

DUPLAN D SILKS

The exclusive right to the use of the word "Silks" is disclaimed apart from mark shown on drawing.

Particular description of goods.—Silk Piece Goods.

Claims use since February, 1898.

Ser. No. 153,579. (CLASS 38. PRINTS AND PUBLICATIONS.) CLIFFORD NORMAN BOURNE, Syracuse, N. Y. Filed Oct. 1, 1921.

PICTURIT

Particular description of goods.—Printed Books Printed from Time to Time.

Claims use since Sept. 27, 1921.

Ser. No. 154,867. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DR. PETER FAHRNEY & SONS CO., Chicago, Ill. Filed Nov. 1, 1921. Under ten-year proviso.

No claim being made to the exclusive use of the words "Trade-Mark" and "Chicago, Ill., U. S. A." apart from mark shown in drawing.

Particular description of goods.—A System Tonic to Improve the Appetite, to Promote Digestion, to Regulate the Action of the Bowels, and to Quiet the Nervous System, Beneficially Affecting the Kidneys and the Liver, Producing Thereby Salutary Effects Upon the Blood Stream and the Entire System.

Claims use since about Apr. 12, 1888.

Ser. No. 154,900. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) VIRDEN PACKING COMPANY, Oakland, Calif. Filed Nov. 1, 1921.

Millcrest

Particular description of goods.—Canned Fruits and Canned Vegetables.

Claims use since Aug. 5, 1921.

Ser. No. 154,965. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LEON DRINKWINE, Springfield, Mass. Filed Nov. 3, 1921.

ZEMA

Particular description of goods.—Skin Preparation for Eczema, Barbers' Itch, Skin Affections, Varicose Veins, Protruding or Itching Piles, Etc.

Claims use since Jan. 1, 1901.

Ser. No. 155,016. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE CHALLENGE CUTLERY CORPORATION, Bridgeport, Conn. Filed Nov. 4, 1921.

FLY-LOCK

Particular description of goods.—Pocketknives.

Claims use since June 7, 1919.

Ser. No. 155,133. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) AKTIESELSKABET DE DANSKE SPRITFABRIKKER, Copenhagen, Denmark. Filed Nov. 8, 1921.

The trade-mark consists of an oval etiquette in which is a Maltese cross on red ground.

Particular description of goods.—Spirituous Liquors—That is to Say, Wine, Whisky, Brandy, Ethyl Alcohol, and Lees Used in the Manufacture of Distilled Liquors.

Claims use since 1885.

Ser. No. 155,155. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BRAGNO & MUSTARI, Chicago, Ill. Filed Nov. 8, 1921.

The word "Virgin" does not form a part of the registration sought apart from the mark shown in the drawing.

Particular description of goods.—Olive Oil.

Claims use since Feb. 1, 1921.

Ser. No. 155,218. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) ELY & WALKER DRY GOODS COMPANY, St. Louis, Mo. Filed Nov. 9, 1921.

Particular description of goods.—Draperies, Ready-Made Curtains of Net, Velours, Tapestry, Dyed Burlap, Curtain Nets, Scrims, Marquisettes, Voiles, Swisses, Cretonnes, Silkolines, and Imitation Tapestry.

Claims use since Jan. 1, 1921.

Ser. No. 155,433. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) F. I. A. T., New York, N. Y. Filed Nov. 16, 1921.

FIAT

Particular description of goods.—Automobiles.

Claims use since October, 1910.

Ser. No. 155,443. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HERMANN MÜLLER, Halle/Saale, Germany. Filed Nov. 16, 1921.

"Haloria"

Particular description of goods.—Razors; Knives of Base Metal—Namely, Table, Pocket, Bread, Kitchen, Vegetable, Dressing, Butchers', and Draftsmen's Knives; Scissors, Cork Screws, Hair-Clipping Machines, and Sharpening Steels.

Claims use since Jan. 1, 1909.

Ser. No. 155,445. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) PIROXLOID PRODUCTS CORPORATION, New York, N. Y. Filed Nov. 16, 1921.

Particular description of goods.—Games of the Table-Board Type in Which a Series of Combinations of Numbers or Other Symbols are Caused to Appear by Shaking the Game.

Claims use since Oct. 25, 1921.

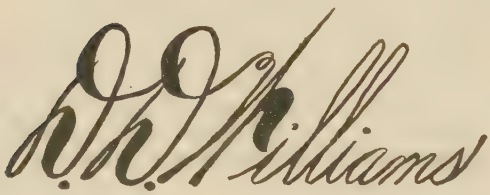
Ser. No. 155,484. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) L. H. CONNOR, San Francisco, Calif. Filed Nov. 17, 1921.

The words "Hair Net Real Human Hair" and the representation of the hair net as shown in the drawing are disclaimed apart from the mark shown.

Particular description of goods.—Hair Nets.

Claims use since Aug. 1, 1921.

Ser. No. 155,670. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WM. D. DAVIS, doing business as Standard Medical Company, Lansford, Pa. Filed Nov. 21, 1921.



Trade-mark is a facsimile signature of D. D. Williams, the originator of the ointment.

Particular description of goods.—Ointment for the Treatment of Rheumatism and Neuralgic Pain.

Claims use since Jan. 1, 1907.

Ser. No. 155,853. (CLASS 38. PRINTS AND PUBLICATIONS.) BIGELOW, BOWDITCH & COMPANY, Boston, Mass. Filed Nov. 25, 1921.

Boston
Metal Market

Particular description of goods.—Daily Bulletin or News Sheet of the Prices of Metals.

Claims use since Nov. 8, 1921.

Ser. No. 155,930. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HARVEY P. COGBILL, doing business as Celestial Chemical Company, Chicago, Ill. Filed Nov. 25, 1921.

Particular description of goods.—Face Creams.

Claims use since May 1, 1920.

Ser. No. 155,981. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WALTER T. WEAVER, Highland, N. Y. Filed Nov. 26, 1921.

The pictorial representation of the fruits and all reading matter on drawing except "Half Moon" are disclaimed apart from the other features of mark.

Particular description of goods.—Fresh Fruits Put Up in Barrels, Boxes, and Crates.

Claims use since Feb. 4, 1921.

Ser. No. 155,984. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) AURORA BED SPREAD CO., INC., New York, N. Y. Filed Nov. 28, 1921.

Particular description of goods.—Bedspreads.

Claims use since March, 1911.

Ser. No. 156,078. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CARBROX COMPANY, INC., New Orleans, La. Filed Nov. 30, 1921.

CARBROX

Particular description of goods.—Decolorizing and Activated Carbons for Use in Decolorizing Sugar Solutions and Which Consists of Charred Rice Material Which Has Been Chemically Treated to Increase Decolorizing Power.

Claims use since Oct. 12, 1921.

Ser. No. 156,106. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) NON-BREAKABLE BUTTON CORPORATION OF AMERICA, Milwaukee, Wis. Filed Nov. 30, 1921.

NBC
NON-BREAKABLE BUTTON CORP.

Particular description of goods.—Nonbreakable Buttons for Clothing.

Claims use since Mar. 1, 1921.

Ser. No. 156,111. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) STAR DUST PRODUCTS CORPORATION, New York, N. Y. Filed Nov. 30, 1921.

STARDUST
CLEANS THE WORLD

No claim is made to the words "It Cleans the World" apart from mark shown on drawing.

Particular description of goods.—A Cleansing and Polishing Material Composed of Marl with or without a Carrier.

Claims use since on or about Oct. 7, 1921.

Ser. No. 156,152. (CLASS 38. PRINTS AND PUBLICATIONS.) DREI MASKEN VERLAG A.-G., Munich, Germany. Filed Dec. 1, 1921.

3 Masken-Verlag

Particular description of goods.—Printed Products—Namely, Journals, Music, Insignia, and Letters.

Claims use since Jan. 9, 1911.

Ser. No. 156,235. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) JULIUS H. T. OLSEN, New York, N. Y. Filed Dec. 3, 1921.

SHOE MIRA POLISH

The words "Shoe Polish" are disclaimed apart from the mark as shown.

Particular description of goods.—Shoe Polish.

Claims use since Oct. 7, 1921.

Ser. No. 156,253. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BROMOGRAPH A.-G. MANNHEIM, Mannheim, Germany. Filed Dec. 5, 1921.

BROMOL

Particular description of goods.—Chemicals Used in Photography.

Claims use since Apr. 2, 1913.

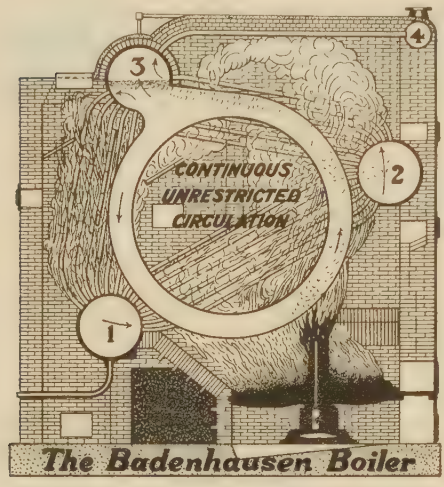
Ser. No. 156,254. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BROMOGRAPH A.-G. MANNHEIM, Mannheim, Germany. Filed Dec. 5, 1921.

BROMOGRAPH

Particular description of goods.—Chemicals Used in Photography.

Claims use since Sept. 11, 1913

Ser. No. 156,348. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) JOHN PHILLIPS BADENHAUSEN, doing business as Phillips Badenhausen, Philadelphia, Pa. Filed Dec. 7, 1921.

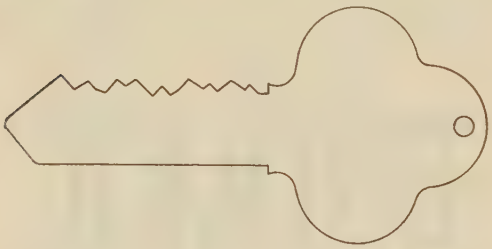


No claim being made to the exclusive use of the words "Continuous, Unrestricted Circulation" and the "Badenhausen Boiler" nor to the representation of a boiler apart from the mark shown on the drawing.

Particular description of goods.—Steam Boilers.

Claims use since about June, 1921.

Ser. No. 156,383. (CLASS 25. LOCKS AND SAFES.) HERSHEY MANUFACTURING COMPANY, Denver, Colo. Filed Dec. 7, 1921.



Particular description of goods.—Locks for Automobiles.

Claims use since about Oct. 20, 1919.

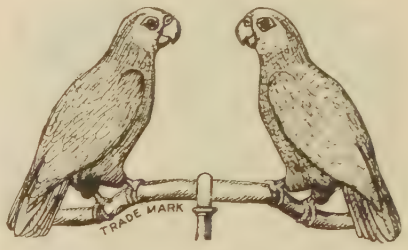
Ser. No. 156,428. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WEICHSEL LABORATORIES, Dallas, Tex. Filed Dec. 7, 1921.

The use of the word "Mud" is disclaimed apart from the mark as shown in drawing.

Particular description of goods.—Chemical Preparation for Application on Face and Designed to Remove Wrinkles and Increase the Blood Circulation.

Claims use since Sept. 21, 1921.

Ser. No. 156,536. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRIETTA LEWIS, Chicago, Ill. Filed Dec. 10, 1921.



No claim to the words "Trade Mark" apart from mark on drawing.

Particular description of goods.—Face Creams.

Claims use for two years.

Ser. No. 156,582. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) H. C. KING & SONS, Battle Creek, Mich. Filed Dec. 12, 1921.

Particular description of goods.—Seeds and Grain.

Claims use since Nov. 15, 1921.

Ser. No. 156,598. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE RAT BISCUIT COMPANY, Springfield, Ohio. Filed Dec. 12, 1921.

No claim being made to the word "Rat Bis-Kit" apart from the mark as shown.

Particular description of goods.—Poison for Rats, Mice, and Insects, in Both Cake and Paste Form.

Claims use since on or about May 1, 1901.

Ser. No. 156,605. (CLASS 39. CLOTHING.) LEVY SHULMAN AND CO., INC., New York, N. Y. Filed Dec. 12, 1921.

Particular description of goods.—Ladies' and Misses' Dresses.
Claims use since Nov. 1, 1921.

Ser. No. 156,626. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE GOULD, doing business as The Nu-Do Process Company, New York, N. Y. Filed Dec. 13, 1921.

"NU-DO"

Particular description of goods.—Chemical Food for Yeast Plant.
Claims use since Sept. 27, 1921.

Ser. No. 156,751. (CLASS 39. CLOTHING.) ROSEBUD MFG. CO., New York, N. Y. Filed Dec. 15, 1921.

Scotchbloom

Particular description of goods.—Dresses, Petticoats, Blouses, Shirt Waists, and Aprons.
Claims use since Dec. 1, 1921.

Ser. No. 156,803. (CLASS 17. TOBACCO PRODUCTS.) REID, MURDOCH & CO., Chicago, Ill. Filed Dec. 16, 1921.

Trade-mark consists of the arbitrary words or name "Richelieu, El Santo," and a fanciful picture from the play Richelieu.
Particular description of goods.—Cigars.
Claims use since Jan. 20, 1888.

Ser. No. 156,805. (CLASS 17. TOBACCO PRODUCTS.) REID, MURDOCH & CO., Chicago, Ill. Filed Dec. 16, 1921.

Trade-mark consists of the arbitrary name "Juliana" and a fanciful female bust over an ornamental scroll.
Particular description of goods.—Cigars.
Claims use since Jan. 20, 1888.

Ser. No. 156,808. (CLASS 37. PAPER AND STATIONERY.) ROCKWELL-BARNES COMPANY, Chicago, Ill. Filed Dec. 16, 1921.

Particular description of goods. Adding-Machine Rolls, Binders, Clip Boards, Composition Books, Copy Cloths,

Document Manila, File Backs, File Folders, Hat Checks, Impression Books, Journal Books, Long Day Books, Memorandum Books, Metal File Boxes, Paper Tablets; Paper Fasteners, Brass and Steel; Perforated Memo Tabs, Record Books, Spelling Blanks, Stenographic Notebooks, Train Orders, Waybills; Blank Books and Pencils, Ordinary and Mechanical; Papers—Bond, Cloth Finish, Duplex, French Folio, Laid, Linen, Mimeograph, Onionskin, Parchment, Print, Sulphite, Telegraph Writing, Wove, Writing; Papers, Ruled—Foolscap, Journal, Ledger, Penmanship.

Claims use since June 15, 1921.

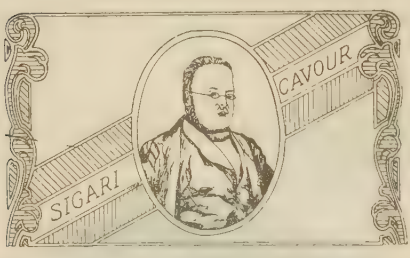
Ser. No. 156,809. (CLASS 45. BEVERAGES, NONALCOHOLIC.) STANDARD BOTTLING COMPANY, LIMITED, Medicine Hat, Alberta, Canada. Filed Dec. 16, 1921.

No claim is made to the word "Drink" on drawing above the word "Ka-Ko." The lines on drawing are for shading only. No claim is made to the words "The Better Drink" apart from the mark as shown.

Particular description of goods.—Nonalcoholic, Maltless Beverage Sold as a Soft Drink and Sirups and Extracts for Making Same.

Claims use since December, 1919.

Ser. No. 156,865. (CLASS 17. TOBACCO PRODUCTS.) CAVOUR CIGAR COMPANY, New York, N. Y. Filed Dec. 17, 1921.

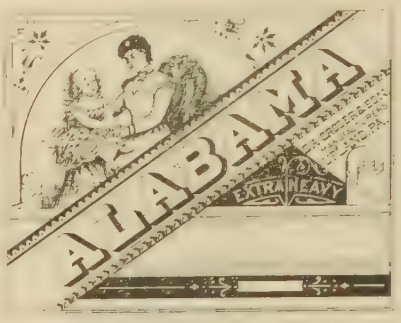


No claim is made to the exclusive use of the word "Sigari" apart from the mark as shown. The portrait is that of the Italian statesman Cavour (deceased). The lines on drawing are for red, green, and blue.

Particular description of goods.—Cigars and Smoking Tobacco.

Claims use since Oct. 1, 1921.

Ser. No. 156,960. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JOHN P. CROZER, doing business as Samuel A. Crozer & Son, Upland, Pa. Filed Dec. 20, 1921. Under ten-year proviso.



Particular description of goods.—Cotton Piece Goods.

Claims use since 1868.

Ser. No. 157,061. (CLASS 38. PRINTS AND PUBLICATIONS.) DEARBORN PUBLISHING COMPANY, Dearborn, Mich. Filed Dec. 23, 1921.

The Ford International Weekly

THE DEARBORN INDEPENDENT

Particular description of goods.—Weekly Publication.

Claims use since Jan. 11, 1919.

Ser. No. 157,146. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) H. WILL ELDERS, doing business as Nature's Elixir Co., St. Joseph, Mo. Filed Dec. 27, 1921.

STERILTONE

Particular description of goods.—Proprietary Medicine for Use in Treatment of Sterility in Women.

Claims use since May 1, 1919.

Ser. No. 157,155. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) OTTO F. LOUIS, Bay City, Mich. Filed Dec. 27, 1921.

LIN-FLAX

Particular description of goods.—Poultices and Plasters for the Treatment of Boils, Burns, Carbuncles, Infections, and Skin Diseases.

Claims use since Dec. 2, 1921.

Ser. No. 157,275. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) JÖNKÖPINGS OCH VULCANS TÄNDSTICKSFABRIKSAKTIEBOLAG, Jönköping, Sweden. Filed Dec. 29, 1921.

No claim being made to the exclusive use of the Swedish words "Tändsticks Fabrik Säkerhets-Tändstickor, Utan Svafvel Och Fosfor, Tända Endast Mot Lådans Plan" apart from the mark shown on the drawing.

Particular description of goods.—Matches.

Claims use since Aug. 4, 1910.

Ser. No. 157,405. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BALBA CORPORATION OF AMERICA, Toledo, Ohio. Filed Jan. 3, 1922.

BALBA

Particular description of goods.—Perfume.

Claims use since Sept. 23, 1921.

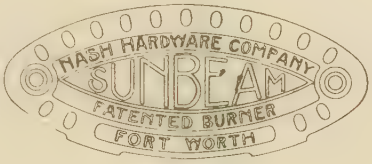
Ser. No. 157,415. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE EDGAR CHEMICAL COMPANY, Cleveland, Ohio. Filed Jan. 3, 1922.

GripChecks

Particular description of goods.—Medicines for the Treatment of Colds and Analogous Diseases.

Claims use since about Sept. 1, 1909.

Ser. No. 157,423. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS NOT INCLUDING ELECTRICAL APPARATUS.) NASH HARDWARE COMPANY, Fort Worth, Tex. Filed Jan. 3, 1922.



No claim made to the words "Patented Burner, Fort Worth" apart from the mark shown in drawing.

Particular description of goods.—Liquid Fuel or Oil and Gas Heaters and Cook Stoves.

Claims use since May 15, 1921.

Ser. No. 157,485. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANCES H. GREEN, doing business as Madame Polly, New York, N. Y. Filed Jan. 4, 1922.

PEPP-O-STRINGENT

No claim being made to exclusive use of the word "Stringent" apart from the mark as shown in the drawing.

Particular description of goods.—Peppermint Astringent.

Claims use since May, 1898.

Ser. No. 157,486. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HARRY HAGUE, trading as Glenwood Manufacturing Co., Glendale, Calif. Filed Jan. 4, 1922.

"WATCH IT GET 'EM"

Particular description of goods.—Disinfectant.

Claims use since October, 1913.

Ser. No. 157,490. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) THE KOPPERS COMPANY, Pittsburgh, Pa. Filed Jan. 4, 1922.

KOPPERS
TWIN CITY
COKE

No claim is made to exclusive use of word "Coke" nor "Twin City" except as shown on drawing.

Particular description of goods.—Coke.

Claims use since Nov. 15, 1921.

Ser. No. 157,501. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE VITAL SANANDO CO., INC., New York, N. Y. Filed Jan. 4, 1922.

Particular description of goods.—Liquid for Dissolving and Removing Without Pain Gallstones from the Human Body.

Claims use since June 1, 1921.

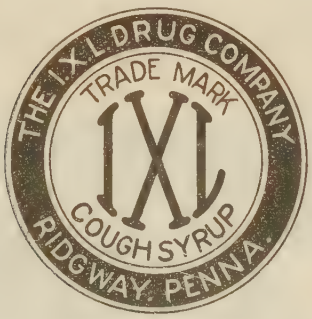
Ser. No. 157,502. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE VITAL SANANDO CO., INC., New York, N. Y. Filed Jan. 4, 1922.

Vital Sanando

Particular description of goods.—Liquid for Liver, Stomach, and Bowel Troubles.

Claims use since June 1, 1921.

Ser. No. 157,648. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) C. A. ANSTADT, doing business as The I. X. L. Drug Company, Ridgway, Pa. Filed Jan. 9, 1922.



No claim is made to the exclusive use of the words "Trade Mark," "Cough Sirup," and "Ridgway, Pa." except as the same appears in connection with other features of the mark.

Particular description of goods.—Cough Sirup.

Claims use since Dec. 24, 1921.

Ser. No. 157,649. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN A. BAKER, doing business as Muster-Camph Co., Minneapolis, Minn. Filed Jan. 9, 1922.

Particular description of goods.—Salve for Chest Colds and Congestion, Rheumatism, Aching Joints, Sore Muscles, Stiff Neck, Neuralgia, Neuritis, Asthma, Sprains, and Strains.

Claims use since on or about Oct. 1, 1915.

Ser. No. 157,656. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) BILLSTEIN-FEIERMAN CO., Cleveland, Ohio. Filed Jan. 9, 1922.

The lining on the drawing is merely to indicate shading, and the word "Service" is not claimed apart from the mark as shown.

Particular description of goods.—Elastics Consisting of Woven Material in Which Rubber is Incorporated, Shoe Laces, Pins Not Made of Precious Metal, Buttons Not Made of Precious Metal, Plain Combs, Ladies' Hand Bags of Ribbon or Beaded (Not Mounted in Precious Metal).

Claims use since December, 1920.

Ser. No. 157,666. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) GALCHINSKY BROS., New York, N. Y. Filed Jan. 9, 1922.

No claim made to exclusive use of the words "Human Hair Net," "Made of Real Human Hair," and "Invisible" apart from the mark shown.

Particular description of goods.—Hair Nets.

Claims use since about Nov. 3, 1921.

Ser. No. 157,905. (CLASS 38. PRINTS AND PUBLICATIONS.) THE SUN-HERALD CORPORATION, New York, N. Y. Filed Jan. 13, 1922.

CLARENCE

Particular description of goods.—Cartoon Serials.
Claims use since July 10, 1921.

Ser. No. 158,021. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NURADIUM COMPANY, Chicago, Ill. Filed Jan. 16, 1922.

Nuradium

Particular description of goods.—Restorative and Constructive Tonic Remedy.
Claims use since Oct. 20, 1921.

Ser. No. 158,049. (CLASS 17. TOBACCO PRODUCTS.) LADY NIC INC., New York, N. Y. Filed Jan. 17, 1922.

Particular description of goods.—Cigarettes.
Claims use since Nov. 17, 1921.

Ser. No. 158,120. (CLASS 45. BEVERAGES, NONALCOHOLIC.) THE TUDOR CO., Buffalo, N. Y. Filed Jan. 19, 1922.

Coleman's

Trade-mark consists of the word "Coleman's" in the handwriting of W. F. Coleman, president of applicant company.
Particular description of goods.—Ginger Ale, Root Beer, Sarsaparilla, Birch Beer, Orange and Lemon Sour.
Claims use since May 1, 1912.

Ser. No. 158,150. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) RELIANCE METAL SPINNING & STAMPING CO. INC., Brooklyn, N. Y. Filed Jan. 19, 1922.

HONRWARE

Particular description of goods.—Ash Receivers and Trays.
Claims use since Nov. 3, 1921.

Ser. No. 158,172. CLASS 38. PRINTS AND PUBLICATIONS.) THE AMERICAN LUMBERMAN, Chicago, Ill. Filed Jan. 20, 1922.

American Lumberman

Particular description of goods.—Weekly Periodical Publications.
Claims use since Jan. 1, 1899.

Ser. No. 158,227. (CLASS 38. PRINTS AND PUBLICATIONS.) DEFIANCE MANUFACTURING COMPANY, New York, N. Y. Filed Jan. 21, 1922.

DEFIANCE

Particular description of goods.—Calendars.
Claims use since Jan. 1, 1920.

Ser. No. 158,261. (CLASS 12. CONSTRUCTION MATERIALS.) SALL MOUNTAIN COMPANY, Chicago, Ill. Filed Jan. 21, 1922.

MULTICELL

Particular description of goods.—Asbestos Pipe Covering.
Claims use since on or about July, 1916.

Ser. No. 158,282. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE BARNARD TOY CO., Detroit, Mich. Filed Jan. 23, 1922.

No claim is made to the word "Brand" apart from the mark shown.
Particular description of goods.—Toys—Namely, Bubble-Blowing Outfits, Box Kites, a Dancing Ball Toy, a "Stick Horse" (Comprising a Stick with Wheels on One End and a Horse Head on the Other); "Hummer," a Toy Including a Tube and String to be Swung Through the Air; and a Toy Comprising a Can Arranged to Return When Rolled Away from One.
Claims use since Jan. 4, 1922.

Ser. No. 158,380. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) CUPPLES COMPANY MANUFACTURERS, St. Louis, Mo. Filed Jan. 24, 1922.

Particular description of goods.—Rubber Jar Rings.
Claims use since on or about Mar. 1, 1907.

Ser. No. 158,483. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MINOT, HOOPER & CO., New York, N. Y. Filed Jan. 26, 1922. Under ten-year proviso.

CABOT

A

Particular description of goods.—Cotton Piece Goods.
Claims use since 1844.

Ser. No. 158,512. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE YEAST TABLET CO., South Bend, Ind. Filed Jan. 26, 1922.

OXOYEAST

Particular description of goods.—Food Tonic Containing Vitamines of Yeast.
Claims use since Jan. 2, 1922.

Ser. No. 158,547. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WINTHROP CHEMICAL COMPANY, INC., New York, N. Y. Filed Jan. 27, 1922.

Particular description of goods.—Preparations Used in the Treatment of the Following Diseases: Chlorosis, Anæmia, Skin Diseases, Malaria, Chorea, Cystitis, Prostatitis, Leprosy, Neurasthenia, Burns, Ulcers, Wounds, Pharyngitis Laryngitis, Headache, Neuralgia, Urethritis, Pleurisy, Whooping Cough, Hay Fever, Neuritis, Uterine and Ovarian Diseases, Goiter, Arthritis, Epilepsy, Drug Addiction, Hysteria, Mental Diseases, Tetanus, Rheumatism, Gout, Sciatica, Influenza, Tonsillitis, Diseases of Stomach, Arteriosclerosis, Insomnia, Pruritus, Tuberculosis, Bronchitis, Heart Diseases, Kidney Diseases, Pneumonia, Typhoid Fever, Asthma, Eye Diseases, Rectal Diseases, Locomotor Ataxia, Seasickness, Syphilis, Nasal Catarrhs, Intestinal Diseases, Scrofula, Diseases of Liver, Diseases of Ear, Diseases of Mouth, Scarlet Fever, Measles.
Claims use since Apr. 1, 1919.

Ser. No. 158,550. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE AKRON MATTRESS MANUFACTURING COMPANY, Akron, Ohio. Filed Jan. 28, 1922.

No claim is made to the exclusive use of the words "None Genuine Without This Label" or "Akron, Ohio," or to representation of the goods except in connection with the other features of the mark.

Particular description of goods.—Mattresses, Box Springs, Bed Springs, and Pillows.

Claims use since Jan. 1, 1922.

Ser. No. 158,582. (CLASS 25. LOCKS AND SAFES.) SOCIÉTÉ P. & A. PICARD, Paris, France. Filed Jan. 28, 1922.

P.F.

Particular description of goods.—Steel Mortice and Rim Locks.

Claims use since Apr. 22, 1910.

Ser. No. 158,584. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SITROUX IMPORTING COMPANY, INC., New York, N. Y. Filed Jan. 28, 1922.

La Fountaine

Particular description of goods.—Hair Nets.

Claims use since Jan. 12, 1922.

Ser. No. 158,598. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BIRD-ARCHER COMPANY, New York, N. Y. Filed Jan. 30, 1922.

BACO

Particular description of goods.—Boiler Chemicals—to wit, Polarized, Solid, Antifoaming Antileak, for Locomotive and Stationary Boilers and Extract Form and Liquid Form for Marine Boilers.

Claims use since Sept. 1, 1919.

Ser. No. 158,602. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE CLEERO COMPANY, Chicago, Ill. Filed Jan. 30, 1922.

CLEERO

Particular description of goods.—Shampoo.

Claims use since Apr. 9, 1917.

Ser. No. 158,616. (CLASS 32. FURNITURE AND UPHOLSTERY.) HOOSIER DESK COMPANY, Jasper, Ind. Filed Jan. 30, 1922.

HOOSIER

Particular description of goods.—Desks and Office Tables.

Claims use since about Jan. 1, 1922.

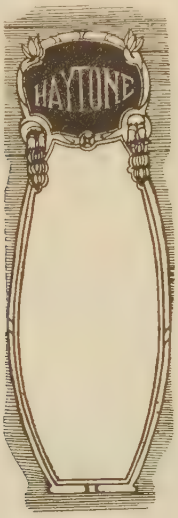
Ser. No. 158,621. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALBERT A. KRUEGER, doing business as Curlox Company, St. Louis, Mo. Filed Jan. 30, 1922.

Curlox

Particular description of goods.—Hair Shampoo.

Claims use since about Jan. 1, 1921.

Ser. No. 158,644. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE PHILO HAY COMPANY, Newark, N. J. Filed Jan. 30, 1922.



Particular description of goods.—Tonic for Use in Cases of Nervous Exhaustion, Weakened Vitality, Loss of Appetite, and Reduced Strength.
Claims use since Jan. 10, 1921.

Ser. No. 158,669. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ABBOTT HARDWARE CO., New York, N. Y. Filed Jan. 31, 1922.

MAGIC PLUMBER

Particular description of goods.—Chemical Preparation for Cleaning, Deodorizing, and Disinfecting Garbage Cans, Toilet Bowls, Urinals, and Drainpipes.
Claims use since April, 1913.

Ser. No. 158,711. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HARRIS-STEPHENSON, De Ridder, La. Filed Feb. 1, 1922.

BAT-O-PEP

Particular description of goods.—Electrolyte Compound.
Claims use since Jan. 1, 1922.

Ser. No. 158,716. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LANGLEY & MICHAELS CO., San Francisco, Calif. Filed Feb. 1, 1922.

ALCO-TONE

Particular description of goods.—Massage Alcohol.
Claims use since Jan. 18, 1922.

Ser. No. 158,717. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LANGLEY & MICHAELS CO., San Francisco, Calif. Filed Feb. 1, 1922.

CAL-A-HOL

Particular description of goods.—Rubbing Alcohol.
Claims use since Sept. 1, 1921.

Ser. No. 158,741. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE D. WRIGHT CORPORATION, Dover, Del., and New York, N. Y. Filed Feb. 1, 1922.

GLORIENT

Particular description of goods.—Dyes.
Claims use since Jan. 1, 1922.

Ser. No. 158,805. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) A/S TUBORGS FABRIKKER, Hellerup, near Copenhagen, Denmark. Filed Feb. 2, 1922.

The words "Copenhagen," "Special Citron Soda Water," "To be Kept Cool," "Danish Produce," and "Purveyors to the Royal Danish Court" are disclaimed apart from the mark in the drawing.
Particular description of goods.—Nonalcoholic Maltless Beverage Sold as a Soft Drink.
Claims use since 1916.

Ser. No. 158,988. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORG LAABS, Schonhausen a. Elbe, Germany. Filed Feb. 7, 1922.

Pantekzemon

Trade-mark "Pantekzemon."
Particular description of goods.—Ointment for the Treatment of Acute and Chronic Dartre (Tetter and Scurf), Sycosis, Speriginous Ulceration of the Leg, and Pruritus.
Claims use since Oct. 1, 1921.

Ser. No. 159,037. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JORDAN MARSH COMPANY, Boston, Mass. Filed Feb. 8, 1922.

"Avona"

Particular description of goods.—Hair Nets.
Claims use since June, 1901.

Ser. No. 159,069. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE WEBER LIFELIKE FLY CO. Stevens Point, Wis. Filed Feb. 8, 1922

BASAKLE

Particular description of goods.—Artificial Fishing Baits.
Claims use since Nov. 15, 1921.

Ser. No. 159,206. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) IRONGLAND COMPANY, San Francisco, Calif. Filed Feb. 11, 1922.

IRONGLAND

Particular description of goods.—Medicinal Tonic Tablet Containing Goat and Sheep Glands, Iron and Orchic Substance, Used for Sexual Debility, Lost Vitality, Sexual Neurasthenia, Deficient Cell Oxidation, Anæmia, Nervousness, Asthenia, Low Blood Pressure, General Weaknesses.
Claims use since May 16, 1921.

Ser. No. 159,227. (CLASS 17. TOBACCO PRODUCTS.) "TURMAC" TURKISH-MACEDONIAN TOBACCO CO., Arnhem, Netherlands. Filed Feb. 11, 1922.

INDSJI

"Indsji."
Particular description of goods.—Smoking and Chewing Tobacco, Cigars, Cigarettes, and Snuff.
Claims use since Oct. 1, 1921.

Ser. No. 159,228. (CLASS 17. TOBACCO PRODUCTS.) "TURMAC" TURKISH-MACEDONIAN TOBACCO CO., Arnhem, Holland. Filed Feb. 11, 1922.

KARÁSSOU

"Karássou."
Particular description of goods.—Smoking and Chewing Tobacco, Cigars, Cigarettes, and Snuff.
Claims use since Oct. 1, 1921.

Ser. No. 159,345. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) N. B. COHEN, Scranton, Pa. Filed Feb 15, 1922.

FITZ-U

Particular description of goods.—Hair Nets.
Claims use since Jan. 5, 1922.

Ser. No. 159,347. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) N. B. COHEN, Scranton, Pa. Filed Feb. 15, 1922.

RAYNET

Particular description of goods.—Hair Nets.
Claims use since Jan. 5, 1922.

Ser. No. 159,414. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) HANSCOM HARDWARE CO., Haverhill, Mass. Filed Feb. 16, 1922.

No claim being made to the word "Quality" apart from the mark shown.

Particular description of goods.—Snowshoes, Skis, Ski Bindings, Ski Poles, Sleds, Toboggans, Hockey Sticks, Baseballs, Baseball Gloves, and Mitts.

Claims use since October, 1910.

Ser. No. 159,498. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CARTER DRY GOODS CO., Louisville, Ky. Filed Feb. 18, 1922.

MINDORO

Particular description of goods.—Cotton Piece Goods.

Claims use since Dec. 1, 1921.

Ser. No. 159,579. (CLASS 32. FURNITURE AND UPHOLSTERY.) WILIAM HEERLING, New York, N. Y. Filed Feb. 20, 1922.

THE CHAR-I-TABLE

Particular description of goods.—Chairs and Tables for General Use, Not Including Those Used for Surgical Operations.

Claims use since about Feb. 1, 1922.

Ser. No. 159,677. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE ACHESON-HARDEN CO., New York, N. Y. Filed Feb. 23, 1922.

"The Aristocrat."

Particular description of goods.— Handkerchiefs.

Claims use since Jan. 25, 1922.

Ser. No. 159,733. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) TREMONT & SUFFOLK MILLS, Lowell, Mass. Filed Feb. 23, 1922.

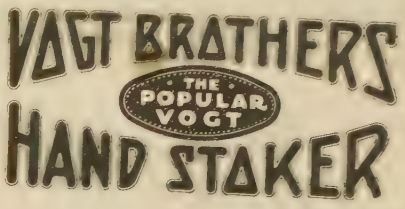
GULL

"Gull" (trade-mark).

Particular description of goods.—Gray Cotton Blankets.

Claims use since January, 1919.

Ser. No. 159,773. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS NOT INCLUDING ELECTRICAL APPARATUS.) VOGT BROTHERS MFG. CO., Louisville, Ky. Filed Feb. 24, 1922.



The words "The Popular Hand Stoker" are hereby disclaimed apart from the mark shown.

Particular description of goods.—Stokers Used in Connection with Steam Boilers.

Claims use since Jan. 10, 1922.

Ser. No. 159,791. (CLASS 17. TOBACCO PRODUCTS.) DE NOBILI CIGAR CO. INC., Long Island City and New New York, N. Y. Filed Feb. 25, 1922.

"AVVENIRE"

Particular description of goods.—Cigars.

Claims use since Feb. 1, 1922.

Ser. No. 159,804. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) H. R. MALLINSON & CO. INC., New York, N. Y. Filed Feb. 25, 1922.

Out-a-dore

Particular description of goods.—Silk Piece Goods.

Claims use since October, 1921.

Ser. No. 159,832. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SIDNEY BLUMENTHAL & CO. INC., New York, N. Y. Filed Feb. 27, 1922.

Ariadne

Particular description of goods.—Pile Fabrics in the Piece.

Claims use since Jan. 18, 1922.

Ser. No. 159,834. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SIDNEY BLUMENTHAL & CO. INC., New York, N. Y. Filed Feb. 27, 1922.

Sheba

Particular description of goods.—Pile Fabrics in the Piece.
Claims use since Mar. 7, 1921.

Ser. No. 159,837. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SIDNEY BLUMENTHAL & CO. INC., New York, N. Y. Filed Feb. 27, 1922.

Broadlam

Particular description of goods.—Pile Fabrics in the Piece.
Claims use since Sept. 22, 1921.

Ser. No. 159,838. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SIDNEY BLUMENTHAL & CO. INC., New York, N. Y. Filed Feb. 27, 1922.

Idesia

Particular description of goods.—Pile Fabrics in the Piece.
Claims use since Jan. 3, 1919.

Ser. No. 159,839. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SIDNEY BLUMENTHAL & CO. INC., New York, N. Y. Filed Feb. 27, 1922.

Everglade

Particular description of goods.—Pile Fabrics in the Piece.
Claims use since June 1, 1921.

Ser. No. 159,957. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) SAM DAVIS, Indianapolis, Ind. Filed Feb. 28, 1922.

CROWN COLA

The word "Cola" is hereby disclaimed apart from the mark shown on drawing.
Particular description of goods.—Nonalcoholic, Non-cereal, Maltless Beverage Sold as a Soft Drink and Sirup for Making the Same.
Claims use since Jan. 15, 1920.

Ser. No. 159,962. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) I. GINZKEY-MAFFERSDORF, INC., New York, N. Y. Filed Feb. 28, 1922.

WFFFG

Particular description of goods.—Woolen Blankets.
Claims use since 1901.

Ser. No. 159,963. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) I. GINZKEY-MAFFERSDORF, INC., New York, N. Y. Filed Feb. 28, 1922.

PRINCESS

Particular description of goods.—Woolen Blankets.
Claims use since 1901.

Ser. No. 159,964. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) I. GINZKEY-MAFFERSDORF, INC., New York, N. Y. Filed Feb. 28, 1922.

VIKTORIA

Particular description of goods.—Woolen Blankets.
Claims use since 1901.

Ser. No. 159,965. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) I. GINZKEY-MAFFERSDORF, INC., New York, N. Y. Filed Feb. 28, 1922.

HRFFF

Particular description of goods.—Woolen Blankets.
Claims use since 1901.

Ser. No. 159,991. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) ARROW FILM CORPORATION, New York, N. Y. Filed Mar. 1, 1922.

A SPEED COMEDY

No claim being made to the word "Comedy" in said drawing except as used in conjunction with the other features of the mark.
Particular description of goods.—Motion Pictures.
Claims use since May 20, 1921.

Ser. No. 160,211. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) SUSSFELD, LORSCH & SCHIMMEL, New York, N. Y. Filed Mar. 4, 1922.

FIVE ★ POINT

Particular description of goods.—Condensing Lenses Used in Motion-Picture, Spotlight, Stereopticon, and Photographic Apparatus.
Claims use since Feb. 7, 1922.

Ser. No. 160,214. (CLASS 17. TOBACCO PRODUCTS.) HOMER THEOCARIDIS, New York, N. Y. Filed Mar. 4, 1922.

"THE CONQUEROR"

"The Conqueror."
Particular description of goods.—Cigarettes.
Claims use since Mar. 1, 1922.

Ser. No. 160,262. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES.) SCHLOSS MANUFACTURING CO., San Francisco, Calif. Filed Mar. 6, 1922.

Pearl

Particular description of goods.—Fruit-Jar Rings.
Claims use since Jan. 1, 1912.

Ser. No. 160,372. (CLASS 17. TOBACCO PRODUCTS.) NELLIE F. TURNER, New York, N. Y. Filed Mar. 8, 1922.

NTF
SPECIAL

No claim is made to the word "Special" apart from mark shown in drawing.
Particular description of goods.—Cigarettes.
Claims use since Dec. 16, 1921.

Ser. No. 160,395. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) A. DOUGHERTY, New York, N. Y. Filed Mar. 9, 1922.

50

Particular description of goods.—Playing Cards.
Claims use since about 1890.

Ser. No. 160,501. (CLASS 12. CONSTRUCTION MATERIALS.) MIDWEST STEEL & SUPPLY COMPANY, INC., New York, N. Y. Filed Mar. 10, 1922.

MIDWEST
BULLDOG

Particular description of goods.—Timber Joint Plates.
Claims use since August, 1921.

Ser. No. 160,536. (CLASS 45. BEVERAGES, NONALCOHOLIC.) GEORGE C. COOK, doing business as The Honey Products Co., New York, N. Y. Filed Mar. 11, 1922.

CALIFORNIA
HONEY-
BALL

No claim made to the exclusive use of the word "California" apart from mark shown in drawing.
Particular description of goods.—Nonalcoholic Maltless Beverages Sold as Soft Drinks.
Claims use since Feb. 23, 1922.

Ser. No. 160,687. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) ALBEX OPTICAL CO., Reading, Pa. Filed Mar. 15, 1922.

ALBEX

Particular description of goods.—Ophthalmic Mountings, and Parts Thereof.
Claims use since May 1, 1904.

Ser. No. 160,704. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) JOSEPH V. HOGUE, New York, N. Y. Filed Mar. 15, 1922.

TEE GREEN

Particular description of goods.—Golf Balls.
Claims use since June 8, 1921.

Ser. No. 161,020. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE UNITED STATES PLAYING CARD COMPANY, Cincinnati, Ohio. Filed Mar. 21, 1922.

Particular description of goods.—Playing Cards.
Claims use since about 1895.

Ser. No. 161,320. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) LESLIE I. KING, Columbus, Ohio. Filed Mar. 27, 1922.

VICTROLA

Particular description of goods.—Toy Banks.
Claims use since about Mar. 11, 1922.

Ser. No. 161,510. (CLASS 45. BEVERAGES, NONALCOHOLIC.) MAX SOPSHIN, doing business as Split Rock Bottling Works, Mount Vernon, N. Y. Filed Mar. 30, 1922.

DR. SOPSHIN'S

The pictures shown on drawing are fanciful.
Particular description of goods.—Nonalcoholic Maltless Celery Tonic Beverage.
Claims use since Mar. 20, 1922.

Ser. No. 161,672. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) COSGROVE BROTHERS, INC., Milton and East Milton, Mass. Filed Apr. 3, 1922.

Elizabeth

Particular description of goods.—Dolls.
Claims use since Feb. 21, 1922.

Ser. No. 162,098. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) BYRON BRADY, Scranton, Pa. Filed Apr. 11, 1922.

GYMHICLE

Particular description of goods.—Child's Vehicle.
Claims use since May 20, 1921.

Ser. No. 162,294. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) HOLMAC, INC., New York, N. Y. Filed Apr. 14, 1922.

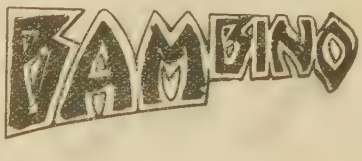
"The Giftie"

Particular description of goods.—Device for Enabling a Person to Study and Perfect Himself in the Game of Golf.
Claims use since Mar. 1, 1922.

Ser. No. 162,421. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) KÄMMER & REINHARDT A. G., Waltershausen (Gotha), Germany. Filed Apr. 17, 1922.

Particular description of goods.—Dolls and Their Parts.
Claims use since beginning of year 1919.

Ser. No. 162,529. (CLASS 17. TOBACCO PRODUCTS.) BAILEY BROS., INC., Winston-Salem, N. C. Filed Apr. 19, 1922.



Particular description of goods. Smoking Tobacco.
Claims use since Apr. 14, 1922.

TRADE-MARK REGISTRATIONS GRANTED

[ACT OF FEBRUARY 20, 1905.]

MAY 30, 1922.

155,363. LAUNDRY WASHING MACHINES. The Almetal Manufacturing Company, Maplewood, Mo.
Filed December 24, 1920. Serial No. 141,478. PUBLISHED FEBRUARY 21, 1922.

155,364. CERTAIN NAMED PRECIOUS-METAL WARE. American Wholesale Corporation (Baltimore Bargain House,) Baltimore and Cumberland, Md.
Filed August 13, 1920. Serial No. 136,050. PUBLISHED JANUARY 10, 1922.

155,365. FISHING LINE. Ashaway Line & Twine Manufacturing Company, Ashaway, R. I.
Filed January 12, 1922. Serial No. 157,807. PUBLISHED FEBRUARY 21, 1922.

155,366. FISHING LINE. Ashaway Line & Twine Manufacturing Company, Ashaway, R. I.
Filed January 12, 1922. Serial No. 157,809. PUBLISHED FEBRUARY 21, 1922.

155,367. FISHING LINE. Ashaway Line & Twine Manufacturing Company, Ashaway, R. I.
Filed January 12, 1922. Serial No. 157,792. PUBLISHED FEBRUARY 21, 1922.

155,368. FISHING LINE. Ashaway Line & Twine Manufacturing Company, Ashaway, R. I.
Filed January 12, 1922. Serial No. 157,793. PUBLISHED FEBRUARY 21, 1922.

155,369. FISHING LINE. Ashaway Line & Twine Manufacturing Company, Ashaway, R. I.
Filed January 12, 1922. Serial No. 157,794. PUBLISHED FEBRUARY 21, 1922.

155,370. FISHING LINE. Ashaway Line & Twine Manufacturing Company, Ashaway, R. I.
Filed January 12, 1922. Serial No. 157,795. PUBLISHED FEBRUARY 21, 1922.

155,371. FISHING LINE. Ashaway Line & Twine Manufacturing Company, Ashaway, R. I.
Filed January 12, 1922. Serial No. 157,796. PUBLISHED FEBRUARY 21, 1922.

155,372. FISHING LINE. Ashaway Line & Twine Manufacturing Company, Ashaway, R. I.
Filed January 12, 1922. Serial No. 157,800. PUBLISHED FEBRUARY 21, 1922.

155,373. FISHING LINE. Ashaway Line & Twine Manufacturing Company, Ashaway, R. I.
Filed January 12, 1922. Serial No. 157,801. PUBLISHED FEBRUARY 21, 1922.

155,374. FISHING LINE. Ashaway Line & Twine Manufacturing Company, Ashaway, R. I.
Filed January 12, 1922. Serial No. 157,812. PUBLISHED FEBRUARY 21, 1922.

155,375. FISHING LINE. Ashaway Line & Twine Manufacturing Company, Ashaway, R. I.
Filed January 12, 1922. Serial No. 157,813. PUBLISHED FEBRUARY 21, 1922.

155,376. FISHING LINE. Ashaway Line & Twine Manufacturing Company, Ashaway, R. I.
Filed January 12, 1922. Serial No. 157,814. PUBLISHED FEBRUARY 21, 1922.

155,377. FISHING LINE. Ashaway Line & Twine Manufacturing Company, Ashaway, R. I.
Filed January 12, 1922. Serial No. 157,815. PUBLISHED FEBRUARY 21, 1922.

155,378. FISHING LINE. Ashaway Line & Twine Manufacturing Company, Ashaway, R. I.
Filed January 12, 1922. Serial No. 157,816. PUBLISHED FEBRUARY 21, 1922.

155,379. FISHING LINE. Ashaway Line & Twine Manufacturing Company, Ashaway, R. I.
Filed January 12, 1922. Serial No. 157,818. PUBLISHED FEBRUARY 21, 1922.

155,380. FISHING LINE. Ashaway Line & Twine Manufacturing Company, Ashaway, R. I.
Filed January 12, 1922. Serial No. 157,819. PUBLISHED FEBRUARY 21, 1922.

155,381. SOAP. Bauer & Black, Chicago, Ill.
Filed November 19, 1921. Serial No. 155,593. PUBLISHED FEBRUARY 21, 1922.

155,382. CERTAIN NAMED MEDICINAL PREPARATIONS. The Bayer Company, Inc., New York, N. Y.
Filed January 3, 1922. Serial No. 157,406. PUBLISHED FEBRUARY 7, 1922.

155,383. GUNS FOR FIXED AND MOBILE ARTILLERY AND NAVAL GUNS. Bethlehem Steel Company, Bethlehem, Pa.
Filed June 2, 1921. Serial No. 148,525. PUBLISHED JANUARY 24, 1922.

155,384. PIECE GOODS OF SILK, WOOL, LINEN, COTTON, AND CHINA GRASS. Bianchini, Férier, Lyon, France.
Filed March 25, 1921. Serial No. 145,205. PUBLISHED JANUARY 31, 1922.

155,385. CERTAIN NAMED ARTICLES OF JEWELRY. Binder Brothers, Inc., New York, N. Y.
Filed August 19, 1921. Serial No. 151,936. PUBLISHED JANUARY 10, 1922.

155,386. CERTAIN NAMED ARTICLES OF JEWELRY. Miles F. Bixler Company, Cleveland, Ohio.
Filed May 9, 1921. Serial No. 147,400. PUBLISHED FEBRUARY 21, 1922.

155,387. SOAP. Boston Blacking Company, Portland, Me., and East Cambridge, Mass.
Filed May 9, 1921. Serial No. 147,396. PUBLISHED JANUARY 3, 1922.

155,388. SMOKING TOBACCO AND CIGARETTES. British-American Tobacco Company, Limited, New York, N. Y.
Filed December 29, 1921. Serial No. 157,249. PUBLISHED FEBRUARY 28, 1922.

155,389. COTTON PIECE GOODS. Brune, Pottberg & Co., New York, N. Y.
Filed September 23, 1921. Serial No. 153,235. PUBLISHED JANUARY 31, 1922.

155,390. WATERPROOFING, PRESERVING, AND FILLING COMPOUND IN THE NATURE OF A BELT DRESSING. Cantol Wax Company, San Antonio, Tex.
Filed January 28, 1921. Serial No. 142,876. PUBLISHED FEBRUARY 7, 1922.

155,391. SALVE OR OINTMENT FOR CROUP, COLDS, CONGESTION, AND INFLAMMATION. Capudine Chemical Company, Raleigh, N. C.
Filed October 24, 1921. Serial No. 154,488. PUBLISHED FEBRUARY 28, 1922.

155,392. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS. CARAVEL COMPANY, INC., New York, N. Y.
Filed May 29, 1920. Serial No. 133,081. PUBLISHED FEBRUARY 7, 1922.

155,393. NONALCOHOLIC, MALTLESS, BEVERAGES SOLD AS SOFT DRINKS AND SIRUPS FOR MAKING THE SAME. MARIO CARBONE, New York, N. Y.
Filed August 16, 1921. Serial No. 151,825. PUBLISHED FEBRUARY 28, 1922.

155,394. HAIR NETS. CHINA AMERICAN TOBACCO & TRADING CO. INC., New York, N. Y.
Filed October 18, 1921. Serial No. 154,263. PUBLISHED FEBRUARY 28, 1922.

155,395. PERFUMES, TOILET WATERS, AND SACHETS. KAELAS D. CHOWDHURY, Chicago, Ill.
Filed October 22, 1921. Serial No. 154,433. PUBLISHED FEBRUARY 7, 1922.

155,396. TOILET CREAMS, ASTRINGENT LOTION, SKIN-CLEANSING LOTION, AND MUSCLE OIL. ANNE T. CLAPPER, Pittsburgh, Pa.
Filed December 14, 1920. Serial No. 141,060. PUBLISHED JANUARY 31, 1922.

155,397. EARTHENWARE AND PORCELAIN JUGS. THE CLEVELAND FRUIT JUICE COMPANY, Cleveland, Ohio.
Filed April 8, 1921. Serial No. 145,878. PUBLISHED JANUARY 17, 1922.

155,398. A CERTAIN NAMED MEDICINAL PREPARATION. COMER, FETTERLY & CO. INC., Union Hill, N. J., and New York, N. Y.
Filed June 10, 1921. Serial No. 148,925. PUBLISHED FEBRUARY 7, 1922.

155,399. A PHARMACEUTICAL PREPARATION, BEING AN ASSOCIATION OF ANIMAL-GLAND SUBSTANCES FOR ALL CONDITIONS OF OVARIAN INSUFFICIENCY. COMER, FETTERLY & CO. INC., Union Hill, N. J., and New York, N. Y.
Filed June 10, 1921. Serial No. 148,924. PUBLISHED FEBRUARY 7, 1922.

155,400. TOILET SOAP. COMMERCIAL SOAP COMPANY, Reno, Nev.
Filed December 12, 1921. Serial No. 156,568. PUBLISHED FEBRUARY 21, 1922.

155,401. SAFETY FUSE. CONSUMERS FUSE AND POWDER COMPANY, San Francisco, Calif.
Filed July 18, 1921. Serial No. 150,512. PUBLISHED JANUARY 24, 1922.

155,402. CERTAIN NAMED ARTICLES OF JEWELRY. THE CONTINENTAL JEWELRY COMPANY, Cleveland, Ohio.
Filed May 9, 1921. Serial No. 147,413. PUBLISHED FEBRUARY 21, 1922.

155,403. DEPILATORY. DEARBORN SUPPLY COMPANY, Chicago, Ill.
Filed November 28, 1921. Serial No. 155,996. PUBLISHED FEBRUARY 28, 1922.

155,404. A MEDICINAL PREPARATION FOR THE TREATMENT OF SKIN DISEASES, OPEN SORES, RHEUMATISM, AND STIFF JOINTS. PATRICK J. DERVIN, New York, N. Y.
Filed April 29, 1921. Serial No. 146,957. PUBLISHED NOVEMBER 8, 1921.

155,405. A WATERPROOF DRESSING FOR LEATHER AND CANVAS GOODS. DULUTH BOER OIL CO., Duluth, Minn.
Filed October 28, 1921. Serial No. 154,683. PUBLISHED JANUARY 3, 1922.

155,406. GUNPOWDER. E. I. DU PONT DE NEMOURS & COMPANY, Wilmington, Del.
Filed December 7, 1920. Serial No. 140,714. PUBLISHED JANUARY 24, 1922.

155,407. CAPS, FUSES, IGNITERS, DETONATING CAPS, SQUIBS FOR IGNITING EXPLOSIVE POWDER AND FLASH-LIGHT POWDER. E. I. DU PONT DE NEMOURS & COMPANY, Wilmington, Del.
Filed April 27, 1921. Serial No. 146,817. PUBLISHED JANUARY 24, 1922.

155,408. DYNAMITE. E. I. DU PONT DE NEMOURS & COMPANY, Wilmington, Del.
Filed November 10, 1921. Serial No. 155,257. PUBLISHED FEBRUARY 7, 1922.

155,409. MACHINE-POISONED RAISINS. DUPUIS CHEMICAL COMPANY, Los Angeles, Calif.
Filed October 22, 1921. Serial No. 154,436. PUBLISHED FEBRUARY 7, 1922.

155,410. MATCHES. JAMES B. ELLWOOD, Chicago, Ill.
Filed October 24, 1921. Serial No. 154,493. PUBLISHED JANUARY 24, 1922.

155,411. CERTAIN NAMED BRUSHES, DUSTERS, AND MOPS. ELWELL BRUSH COMPANY, Rockford, Ill.
Filed September 10, 1921. Serial No. 152,790. PUBLISHED FEBRUARY 28, 1922.

155,412. PHONOGRAPHS AND PHONOGRAPH-RECORD. EMERSON PHONOGRAPH COMPANY, INC., New York, N. Y.
Filed July 6, 1918. Serial No. 111,960. PUBLISHED JUNE 1, 1920.

155,413. SOAP. EMERSON SOAP CO., Dixon, Ill.
Filed September 11, 1919. Serial No. 122,566. PUBLISHED OCTOBER 26, 1920.

155,414. TOILET PREPARATION USED UPON THE HAIR, EYELASHES, EYEBROWS, AND MUSTACHE. THE EMPRESS MANUFACTURING COMPANY, INC., New York, N. Y.
Filed August 5, 1920. Serial No. 135,807. PUBLISHED DECEMBER 28, 1920.

155,415. CERTAIN NAMED ARTICLES OF JEWELRY AND PRECIOUS-METAL WARE. HAROLD G. ESSAYAN, Providence, R. I.
Filed June 17, 1921. Serial No. 149,276. PUBLISHED DECEMBER 13, 1921.

155,416. A CERTAIN NAMED TONIC. DR. PETER FAHRNEY & SONS CO., Chicago, Ill.
Filed November 1, 1921. Serial No. 154,868. PUBLISHED FEBRUARY 28, 1922.

155,417. MEDICAL COMPOUNDS FOR USE IN THE TREATMENT OF DISEASES OF THE HOG, HORSE, CATTLE, SHEEP, AND POULTRY. E. B. FENTON, M. D. C., Olin, Iowa.
Filed February 11, 1920. Serial No. 128,266. PUBLISHED AUGUST 3, 1920.

155,418. A CERTAIN NAMED MEDICINAL PREPARATION. FILIPPO FERRONE, New York, N. Y.
Filed July 21, 1921. Serial No. 150,743. PUBLISHED FEBRUARY 7, 1922.

155,419. SOAP. GEORGE C. FIELD, Newark, N. J.
Filed July 25, 1921. Serial No. 150,892. PUBLISHED FEBRUARY 21, 1922.

155,420. SMOKING TOBACCO, CIGARETTES, CIGARS, AND SNUFF. GALLAHER, LTD., Belfast, Ireland.
Filed May 10, 1921. Serial No. 147,508. PUBLISHED FEBRUARY 28, 1922.

155,421. SMOKING TOBACCO, CIGARETTES, CIGARS, AND SNUFF. GALLAHER, LTD., Belfast, Ireland.
Filed May 10, 1921. Serial No. 147,509. PUBLISHED FEBRUARY 28, 1922.

155,422. SMOKING TOBACCO, CIGARETTES, CIGARS, AND SNUFF. GALLAHER, LTD., Belfast, Ireland.
Filed May 10, 1921. Serial No. 147,510. PUBLISHED FEBRUARY 28, 1922.

155,423. SMOKING AND CHEWING TOBACCO, CIGARETTES, CIGARS, AND SNUFF. GALLAHER, LTD., Belfast, Ireland.
Filed May 10, 1921. Serial No. 147,511. PUBLISHED FEBRUARY 28, 1922.

155,424. CERTAIN NAMED FURNITURE AND UPHOLSTERY. LOUIS R. GANS, Brooklyn, N. Y.
Filed December 6, 1920. Serial No. 140,642. PUBLISHED FEBRUARY 21, 1922.

155,425. CIGARETTES. THE GENERAL TOBACCO COMPANY, Louisville, Ky.
Filed December 20, 1921. Serial No. 156,965. PUBLISHED FEBRUARY 28, 1922.

155,426. RUBBER VEHICLE TIRES AND RUBBER TIRE TREADS. GILLETTE RUBBER COMPANY, Eau Claire, Wis., assignor to Gillette Rubber Company, Eau Claire, Wis., a Corporation of Wisconsin.
Filed September 3, 1920. Serial No. 136,796. PUBLISHED JANUARY 10, 1922.

155,427. NONALCOHOLIC, MALTLESS BEVERAGE SOLD AS SOFT DRINKS AND SIRUP FOR MAKING THE SAME. ZOLLIE L. GLENN, Chaffee, Mo.
Filed December 12, 1921. Serial No. 156,578. PUBLISHED FEBRUARY 28, 1922.

155,428. SOAP. THE GLOBE SOAP COMPANY, Cincinnati, Ohio.
Filed January 23, 1920. Serial No. 127,508. PUBLISHED FEBRUARY 1, 1921.

155,429. CERTAIN NAMED ARTICLES OF JEWELRY. GOLDSMITH BROTHERS SMELTING AND REFINING COMPANY, Chicago, Ill.
Filed September 10, 1921. Serial No. 152,797. PUBLISHED JANUARY 10, 1922.

155,430. PIPES, CIGAR AND CIGARETTE HOLDERS, POUCH TOBACCO BAGS, HUMIDORS, AND CIGAR AND CIGARETTE CASES. SAMUEL GORDON, New York, N. Y.
Filed November 24, 1920. Serial No. 140,113. PUBLISHED FEBRUARY 7, 1922.

155,431. DYES AND DYESTUFFS. THE GRASSELLI CHEMICAL COMPANY, Cleveland, Ohio.
Filed October 24, 1921. Serial No. 154,500. PUBLISHED FEBRUARY 7, 1922.

155,432. DYES AND DYESTUFFS. THE GRASSELLI CHEMICAL COMPANY, Cleveland, Ohio.
Filed October 24, 1921. Serial No. 154,503. PUBLISHED FEBRUARY 7, 1922.

155,433. DYES AND DYESTUFFS. THE GRASSELLI CHEMICAL COMPANY, Cleveland, Ohio.
Filed October 24, 1921. Serial No. 154,507. PUBLISHED FEBRUARY 7, 1922.

155,434. FACE POWDER. MYRTLE GRAY, Clever, Mo.
Filed August 27, 1920. Serial No. 136,552. PUBLISHED FEBRUARY 22, 1921.

155,435. CIGARS. THE JOHN C. GUY COMPANY INCORPORATED, Lexington, Ky.
Filed February 25, 1921. Serial No. 144,024. PUBLISHED FEBRUARY 28, 1922.

155,436. METAL POLISHES. H AND S LABORATORIES, Chicago, Ill.
Filed June 24, 1921. Serial No. 149,589. PUBLISHED FEBRUARY 7, 1922.

155,437. CIGARETTE AND CIGAR HOLDERS. HADON PRODUCTS CORPORATION, New York, N. Y.
Filed April 20, 1921. Serial No. 146,437. PUBLISHED JANUARY 24, 1922.

155,438. AUTO TOP AND SEAT DRESSING. CLARENCE E. HARRIS, Tiburon, Calif.
Filed September 1, 1921. Serial No. 152,468. PUBLISHED JANUARY 3, 1922.

155,439. MANICURE OIL AND NAIL POLISH. MARJORIE J. HASDEN, Chicago, Ill.
Filed October 17, 1921. Serial No. 154,192. PUBLISHED FEBRUARY 7, 1922.

155,440. CARBON PAPER. EGON HASSINGER, Barcelona, Spain.
Filed May 27, 1921. Serial No. 148,332. PUBLISHED JANUARY 31, 1922.

155,441. WASHABLE DOLLS, WASHABLE TOY ANIMALS, AND WASHABLE DOLL CLOTHES. CLARA V. HAVENS, New York, N. Y.
Filed December 6, 1921. Serial No. 156,329. PUBLISHED FEBRUARY 21, 1922.

155,442. CLEANSER IN THE FORM OF SOAP. HAWKEYE CLEANSER CO., Lost Nation, Iowa.
Filed October 11, 1921. Serial No. 153,981. PUBLISHED FEBRUARY 21, 1922.

155,443. BREAD AND ROLLS. HAZLETON BAKING CO., Hazleton, Pa.
Filed April 9, 1920. Serial No. 130,900. PUBLISHED JUNE 22, 1920.

155,444. CERTAIN NAMED TOILET PREPARATIONS. FRED E. HINKLE, Atlanta, Ga.
Filed April 2, 1921. Serial No. 145,628. PUBLISHED FEBRUARY 28, 1922.

155,445. WATCH BRACELETS, NOT INCLUDING WATCHES. HIPP. DIDISHEIM CO., INC., New York, N. Y.
Filed September 14, 1921. Serial No. 152,920. PUBLISHED JANUARY 31, 1922.

155,446. PREPARATIONS FOR WATERPROOFING, PRESERVING, AND SOFTENING SHOE LEATHER. EMERY C. HODGES, Joliet, Ill.
Filed July 21, 1921. Serial No. 150,748. PUBLISHED FEBRUARY 7, 1922.

155,447. CERTAIN NAMED HEAT-RESISTING GLASSWARE. HOLCOMB & HOKE MFG. CO., Indianapolis, Ind.
Filed April 29, 1921. Serial No. 146,967. PUBLISHED SEPTEMBER 6, 1921.

155,448. GOLF BALLS. HOLMAC, INC., New York, N. Y.
Filed January 7, 1922. Serial No. 157,611. PUBLISHED FEBRUARY 21, 1922.

155,449. A CERTAIN NAMED MEDICINAL PREPARATION. JAMES D. HOWARD, Knoxville, Tenn.
Filed September 8, 1921. Serial No. 152,709. PUBLISHED FEBRUARY 7, 1922.

155,450. DISINFECTANTS, DEODORIZERS, FUMIGATORS, AND ANTISEPTICS. WALTER H. HUGGINS, Malden, Mass.
Filed November 19, 1921. Serial No. 155,615. PUBLISHED FEBRUARY 21, 1922.

155,451. AUTOMOBILES. HUPP MOTOR CAR CORPORATION, Richmond, Va.
Filed September 30, 1921. Serial No. 153,550. PUBLISHED JANUARY 3, 1922.

155,452. CONVERTIBLE CHILDREN'S WAGONS, COASTERS, AND SCOOTERS. CHARLES HUSEMAN, St. Louis, Mo.
Filed October 10, 1921. Serial No. 153,932. PUBLISHED FEBRUARY 21, 1922.

155,453. STEAMER RUGS, SANITARIUM RUGS, LAP ROBES, OVERCOATING OF TEXTILE FABRIC. F. C. HUYCK & SONS, Albany, N. Y.
Filed May 8, 1919. Serial No. 118,265. PUBLISHED FEBRUARY 21, 1922.

155,454. RAZOR STROPS. ILLINOIS RAZOR STROP COMPANY, Chicago, Ill.
Filed October 24, 1921. Serial No. 154,518. PUBLISHED JANUARY 3, 1922.

155,455. STIMULANT TO INCREASE THE EGG PRODUCTION OF LAYING HENS. THE IN-CRE-SO COMPANY, Kansas City, Mo.
Filed October 24, 1921. Serial No. 154,517. PUBLISHED FEBRUARY 7, 1922.

155,456. COMPLEXION LOTION. FREDERICK F. INGRAM COMPANY, Detroit, Mich.
Filed November 7, 1921. Serial No. 155,097. PUBLISHED FEBRUARY 14, 1922.

155,457. DAIRY AND TABLE SALT. INTERNATIONAL SALT CO. OF NEW YORK, New York, N. Y.
Filed August 11, 1921. Serial No. 151,675. PUBLISHED FEBRUARY 14, 1922.

155,458. FABRICS IN THE PIECE MADE OF COTTON, SILK, AND LINEN FOR USE IN THE MAKING OF CORSETS. MORRIS ISRAEL, New York, N. Y.
Filed October 25, 1920. Serial No. 138,766. PUBLISHED FEBRUARY 14, 1922.

155,459. CERTAIN ARTICLES OF CLOTHING. JACK & JILL KNITTING MILLS, INC., Newark, N. J.
Filed March 1, 1921. Serial No. 144,192. PUBLISHED JANUARY 17, 1922.

155,460. SOAP AND SOAP POWDERS. JANITORS SUPPLY HOUSE, Baltimore, Md.
Filed July 22, 1921. Serial No. 150,813. PUBLISHED JANUARY 24, 1922.

155,461. CERTAIN NAMED OFFICE FURNITURE. JASPER DESK CO., Jasper, Ind.
Filed January 31, 1921. Serial No. 142,978. PUBLISHED JANUARY 31, 1922.

155,462. A CLEANER AND POLISHER FOR METALS, WOODWORK, AND GLASSWARE. ANNA M. KALLBERG, Minneapolis, Minn.
Filed October 22, 1921. Serial No. 154,453. PUBLISHED JANUARY 3, 1922.

155,463. RESILIENT VEHICLE TIRES COMPOSED IN WHOLE OR IN PART OF RUBBER. KELLY-SPRINGFIELD TIRE COMPANY, New York, N. Y.
Filed September 20, 1921. Serial No. 153,142. PUBLISHED FEBRUARY 21, 1922.

155,464. CLEANSING FLUIDS FOR FABRICS. KENDALL PRODUCTS CORPORATION, Wilmington, Del., and New York, N. Y.
Filed February 11, 1921. Serial No. 143,443. PUBLISHED APRIL 19, 1921.

155,465. CORN REMEDIES. JAMES J. KLAVON, Pittsburgh, Pa.
Filed June 7, 1921. Serial No. 148,803. PUBLISHED DECEMBER 13, 1921.

155,466. CASES AND BAGS, MADE OF LEATHER, FIBER, OR OTHER SUITABLE MATERIALS, FOR FISHING TACKLE. KNICKERBOCKER CASE COMPANY, Chicago, Ill.
Filed September 26, 1921. Serial No. 153,355. PUBLISHED FEBRUARY 28, 1922.

155,467. CASES AND BAGS, MADE OF LEATHER, FIBER, OR OTHER SUITABLE MATERIALS, FOR FISHING TACKLE. KNICKERBOCKER CASE COMPANY, Chicago, Ill.
Filed September 26, 1921. Serial No. 153,358. PUBLISHED FEBRUARY 28, 1922.

155,468. ACID-PROOF CHEMICAL STONEWARE. MAURICE A. KNIGHT, East Akron, Ohio.
Filed October 12, 1921. Serial No. 154,032. PUBLISHED FEBRUARY 14, 1922.

155,469. CIGAR AND CIGARETTE HOLDERS, MOUTHPIECES FOR SAME, PIPES, PIPESTEMS, AND ASH TRAYS. KUNSTHARZFABRIK DR. FRITZ POLLAK G. M. B. H., Vienna, Austria.
Filed August 31, 1920. Serial No. 136,684. PUBLISHED JANUARY 24, 1922.

155,470. CUFF BUTTONS MADE OF PRECIOUS METALS AND OF OTHER METALS, ORNAMENTED. KOHL-PYE MANUFACTURING CO., Rochester, N. Y.
Filed September 17, 1921. Serial No. 153,042. PUBLISHED JANUARY 10, 1922.

155,471. TOILET PREPARATIONS—VIZ, PERFUMES, TOILET WATERS, HAIR TONICS, COSMETICS, TOILET CREAMS AND POWDERS, AND BATHING SALT. LEHMANN & BOHNE, Berlin, Germany.
Filed November 29, 1921. Serial No. 156,053. PUBLISHED FEBRUARY 28, 1922.

155,472. A CHEMICAL PREPARATION AS AN INSECT EXTERMINATOR. JOHN LIBERTO, New York, N. Y.
Filed June 15, 1921. Serial No. 149,196. PUBLISHED FEBRUARY 7, 1922.

155,473. CLOCKS, ALARM CLOCKS, ILLUMINATED CLOCKS, AND TIMEPIECES GENERALLY. HERMAN LOEB, Philadelphia, Pa., assignor to Travelight Mfg. Co., Philadelphia, Pa., a Corporation of Delaware.
Filed March 3, 1921. Serial No. 144,291. PUBLISHED JANUARY 10, 1922.

155,474. CLOCKS, ALARM CLOCKS, ILLUMINATED CLOCKS, AND TIMEPIECES GENERALLY. HERMAN LOEB, Philadelphia, Pa., assignor to Travelight Mfg. Co., Philadelphia, Pa., a Corporation of Delaware.
Filed March 3, 1921. Serial No. 144,292. PUBLISHED JANUARY 10, 1922.

155,475. PIECE GOODS—NAMELY, SHIRTINGS, FLANNELS, GINGHAMS, AND SILKS. EDWARD MCCONNELL & CO., New York, N. Y.
Filed October 11, 1919. Serial No. 123,705. PUBLISHED JANUARY 31, 1922.

155,476. BLOWING GAME. CHESTER MCKAY, Brooklyn, N. Y.
Filed November 16, 1921. Serial No. 155,441. PUBLISHED FEBRUARY 28, 1922.

155,477. CHILDREN'S, MEN'S, AND WOMEN'S GARTERS. RALPH ALEXANDER MACHATTON, Chicago, Ill.
Filed November 27, 1920. Serial No. 140,339. PUBLISHED MARCH 20, 1921.

155,478. TOILET CREAM. I. MAGNIN & CO., San Francisco, Calif., and New York, N. Y.
Filed October 15, 1921. Serial No. 154,153. PUBLISHED FEBRUARY 7, 1922.

155,479. CERTAIN NAMED ARTICLES OF PRECIOUS-METAL WARE. MAPPIN & WEBB LIMITED, Sheffield, and London, England.
Filed August 2, 1921. Serial No. 151,281. PUBLISHED FEBRUARY 14, 1922.

155,480. PIECE GOODS—NAMELY, CAMBRIC. MARSHALL FIELD & COMPANY, Chicago, Ill.
Filed November 27, 1920. Serial No. 140,257. PUBLISHED JANUARY 31, 1922.

155,481. PIECE GOODS—NAMELY, COTTON CLOTH. MARSHALL FIELD & COMPANY, Chicago, Ill.
Filed November 27, 1920. Serial No. 140,278. PUBLISHED FEBRUARY 28, 1922.

155,482. PIECE GOODS—NAMELY, MUSLINS. MARSHALL FIELD & COMPANY, Chicago, Ill.
Filed November 27, 1920. Serial No. 140,292. PUBLISHED JANUARY 31, 1922.

155,483. SODA ASH, BICARBONATE OF SODA, VIRGINIA SODA, CAUSTIC SODA, BLEACHING POWDER, AND LIQUID CHLORINE. THE MATHIESON ALKALI WORKS, New York, N. Y.
Filed September 14, 1921. Serial No. 152,925. PUBLISHED FEBRUARY 28, 1922.

155,484. IODINE THERAPY FOR INFECTION. MERRIMAC DRUG COMPANY, INC., New York, N. Y.
Filed June 11, 1920. Serial No. 133,586. PUBLISHED JANUARY 31, 1922.

155,485. HUMAN-HAIR NETS. METROPOLITAN HAIR GOODS CO., INC., New York, N. Y.
Filed November 19, 1921. Serial No. 155,625. PUBLISHED FEBRUARY 14, 1922.

155,486. VISCOSE. MIDWEST STEEL & SUPPLY COMPANY, INC., New York, N. Y.
Filed October 26, 1921. Serial No. 154,607. PUBLISHED FEBRUARY 28, 1922.

155,487. VISCOSE. MIDWEST STEEL & SUPPLY COMPANY, INC., New York, N. Y.
Filed October 26, 1921. Serial No. 154,608. PUBLISHED FEBRUARY 28, 1922.

155,488. SILK, SATIN, GINGHAMS, SHIRTINGS, SHEETINGS, COTTON CLOTH, AND WOOL DRESS GOODS IN THE PIECE. J. A. MIGEL, INC., New York, N. Y.
Filed November 19, 1918. Serial No. 114,243. PUBLISHED JANUARY 31, 1922.

155,489. A PREPARATION FOR THE TREATMENT OF PILES AND A PREPARATION FOR THE TREATMENT OF RICKETS OR ST. VITUS'S DANCE AND NERVOUS DISEASES. MELVIN O. MILHOAN, Olathe, Kans.
Filed June 30, 1921. Serial No. 149,859. PUBLISHED FEBRUARY 14, 1922.

155,490. ABRASIVE PAPER. MINNESOTA MINING & MF'G. CO., St. Paul, Minn.
Filed October 18, 1921. Serial No. 154,279. PUBLISHED JANUARY 24, 1922.

155,491. CIGARS, CHEROOTS, CIGARETTES, SMOKING AND CHEWING TOBACCO. MOSS & LOWENHAUPT CIGAR CO., St. Louis, Mo.
Filed January 12, 1922. Serial No. 157,841. PUBLISHED FEBRUARY 28, 1922.

155,492. COTTON PIECE GOODS—VIZ, COTTON SUITINGS. NASHUA MANUFG. COMPANY, Nashua, N. H.
Filed May 1, 1920. Serial No. 131,916. PUBLISHED FEBRUARY 14, 1922.

155,493. CERTAIN NAMED MEDICINAL PREPARATIONS. NATIONAL MEDICO-SPECIALTIES LABORATORIES, San Francisco, Calif.
Filed January 15, 1921. Serial No. 142,293. PUBLISHED FEBRUARY 7, 1922.

155,494. BATH MITTEN. CONRAD NEUGEBAUER, Columbus, Ohio.
Filed May 27, 1921. Serial No. 148,343. PUBLISHED FEBRUARY 28, 1922.

155,495. GASOLINE. NORTHERN OIL COMPANY, Virginia, Minn.
Filed October 24, 1921. Serial No. 154,525. PUBLISHED JANUARY 24, 1922.

155,496. CERTAIN NAMED NOTIONS. NATIONAL CLOAK & SUIT CO., New York, N. Y.
Filed August 3, 1918. Serial No. 112,502. PUBLISHED JUNE 21, 1921.

155,497. TANNING EXTRACTS. NEW YORK QUEBRACHO EXTRACT COMPANY, (now by change of name The Tannin Corporation,) New York, N. Y.
Filed November 28, 1921. Serial No. 156,012. PUBLISHED FEBRUARY 28, 1922.

155,498. CERTAIN NAMED CHEMICALS. THE NORTHWESTERN CHEMICAL COMPANY, Wauwatosa, Wis.
Filed August 5, 1921. Serial No. 151,464. PUBLISHED FEBRUARY 7, 1922.

155,499. HAIR NETS. A. E. OPPENHEIMER & BROTHER, Philadelphia, Pa.
Filed December 22, 1920. Serial No. 141,430. PUBLISHED FEBRUARY 28, 1922.

155,500. A CERTAIN NAMED MEDICINAL PREPARATION. ORGAN-IRON COMPANY, Omaha, Nebr.
Filed July 21, 1921. Serial No. 150,765. PUBLISHED FEBRUARY 7, 1922.

155,501. BREADS AND PASTRY. OSWALD JAEGER BAKING CO., Milwaukee, Wis.
Filed May 25, 1921. Serial No. 148,236. PUBLISHED JANUARY 31, 1922.

155,502. PHONOGRAPHS, PHONOGRAPH RECORDS, AND PLAYER ROLLS. PACE PHONOGRAPH CORPORATION, New York, N. Y.
Filed June 23, 1921. Serial No. 149,558. PUBLISHED FEBRUARY 21, 1922.

155,503. POWDERS, PASTES, AND LIQUIDS FOR CLEANING PURPOSES AND ESPECIALLY FOR CLEANING WINDOW SHADES. THE PARIS MANUFACTURING COMPANY, Cleveland, Ohio.
Filed July 18, 1921. Serial No. 150,562. PUBLISHED JANUARY 24, 1922.

155,504. REENFORCED PRESS CLOTH FURNISHED IN THE PIECE FOR USE IN OILSEED PRESSES. FRANKLIN T. PARKER, Columbia, S. C.
Filed February 24, 1921. Serial No. 143,999. PUBLISHED FEBRUARY 14, 1922.

155,505. SHEETINGS. PEARL COTTON MILLS, Durham, N. C.
Filed October 19, 1920. Serial No. 138,512. PUBLISHED FEBRUARY 14, 1922.

155,506. CENTRIFUGAL PUMPS, HYDRAULIC PUMPS, ATOMIZERS FOR VAPOR CONDUITS, CARBURETORS, INJECTORS, EJECTORS, OIL CUPS, GREASE CUPS, PRIMING CUPS, AND LUBRICATORS. PENBERTHY INJECTOR COMPANY, Detroit, Mich.
Filed June 29, 1921. Serial No. 149,819. PUBLISHED JANUARY 31, 1922.

155,507. CIGARS. PEOPLES DRUG STORES, INC., Washington, D. C.
Filed January 9, 1922. Serial No. 157,689. PUBLISHED FEBRUARY 28, 1922.

155,508. A TOILET PREPARATION—VIZ, A FACE BLEACH. PLOUGH CHEMICAL COMPANY, Memphis, Tenn.
Filed October 26, 1921. Serial No. 154,616. PUBLISHED FEBRUARY 7, 1922.

155,509. DENTAL PASTE. THE PYROSAL COMPANY, Spokane, Wash.
Filed August 9, 1921. Serial No. 151,594. PUBLISHED JANUARY 31, 1922.

155,510. A MEDICINE ESPECIALLY ADAPTED FOR USE IN CONNECTION WITH DISEASES OF THE THROAT AND LUNGS. GEORGE B. RAEZER, Lititz, Pa.
Filed February 4, 1921. Serial No. 143,187. PUBLISHED JANUARY 3, 1922.

155,511. EMBROIDERIES OR EMBROIDERED ARTICLES. RECHSTEINER EMBROIDERY COMPANY, INC., Chicago, Ill.
Filed May 16, 1921. Serial No. 147,794. PUBLISHED FEBRUARY 28, 1922.

155,512. HOSIERY FOR MEN, WOMEN, AND CHILDREN. REINS AND MEISS, Cincinnati, Ohio.
Filed August 18, 1919. Serial No. 121,784. PUBLISHED NOVEMBER 18, 1919.

155,513. HOSIERY FOR MEN, WOMEN, AND CHILDREN. REINS & MEISS, Cincinnati, Ohio.
Filed February 10, 1921. Serial No. 143,404. PUBLISHED NOVEMBER 22, 1921.

155,514. IMITATION GEMS. LAURENCE J. RINALDO, Saratoga Springs, N. Y.
Filed February 3, 1921. Serial No. 143,141. PUBLISHED FEBRUARY 14, 1922.

155,515. CARBONATED AND LITHIATED WATER, GINGER ALE, SARSAPARILLA, AND OTHER CARBONATED BEVERAGES. RITZ-CARLTON MINERAL WATER CO. INC., New York, N. Y.
Filed December 7, 1921. Serial No. 156,414. PUBLISHED FEBRUARY 14, 1922.

155,516. CERTAIN NAMED BEDDING AND CUSHIONS, BEDSTEADS, UPHOLSTERY SPRINGS, AND BEDSPRINGS. THE ROBINSON-RODERS CO., INC., Newark, N. J.
Filed July 2, 1920. Serial No. 134,525. PUBLISHED DECEMBER 27, 1921.

155,517. POTTERY WARE MADE FROM BURNED CLAY, WHETHER GLAZED OR UNGLAZED. THE ROOKWOOD POTTERY COMPANY, Cincinnati, Ohio.
Filed May 14, 1921. Serial No. 147,735. PUBLISHED FEBRUARY 28, 1922.

155,518. POTTERY WARE MADE OF BURNED CLAY, WHETHER GLAZED OR UNGLAZED. THE ROOKWOOD POTTERY COMPANY, Cincinnati, Ohio.
Filed May 14, 1921. Serial No. 147,736. PUBLISHED JANUARY 31, 1922.

155,519. POTTERY WARE MADE FROM BURNED CLAY, WHETHER GLAZED OR UNGLAZED. THE ROOKWOOD POTTERY COMPANY, Cincinnati, Ohio.
Filed May 14, 1921. Serial No. 147,737. PUBLISHED JANUARY 31, 1922.

155,520. FLOOR-COVERING COMPOSED OF A FELT PAPER BASE IMPREGNATED WITH ASPHALTUM. ROTHENBERG & CO., New York, N. Y.
Filed November 26, 1920. Serial No. 140,208. PUBLISHED FEBRUARY 22, 1921.

155,521. A LOTION FOR TENDER, BURNING, ACHING, BLISTERED, CRACKED, OR PERSPIRING FEET. ROZIUM COMPANY, Atlanta, Ga.
Filed July 25, 1921. Serial No. 150,931. PUBLISHED JANUARY 31, 1922.

155,522. GERMICIDE AND ANTISEPTIC. SAPHANOL PRODUCTS COMPANY, Indianapolis, Ind.
Filed January 28, 1921. Serial No. 142,909. PUBLISHED MAY 17, 1921.

155,523. BROAD SILKS IN THE PIECE, LINENS, SHIRTINGS, PIECE GOODS, COTTON PIECE GOODS. SCHWARZENBACH, HUBER COMPANY, West Hoboken, N. J., and New York, N. Y.
Filed October 27, 1921. Serial No. 154,667. PUBLISHED FEBRUARY 21, 1922.

155,524. A BLOOD SPECIFIC FOR IMPURE BLOOD. MYRA M. SHUTTLES, Dallas, Tex.
Filed November 22, 1921. Serial No. 155,778. PUBLISHED FEBRUARY 21, 1922.

155,525. MECHANICS' SOAP. SILICA PRODUCTS COMPANY, Tulsa, Okla.
Filed October 17, 1921. Serial No. 154,239. PUBLISHED JANUARY 24, 1922.

155,526. CERTAIN NAMED ARTICLES OF JEWELRY AND PRECIOUS-METAL WARE. SIMONS BROS. COMPANY, Philadelphia, Pa.
Filed October 13, 1921. Serial No. 154,069. PUBLISHED FEBRUARY 14, 1922.

155,527. SMOKING TOBACCO, CHEWING TOBACCO, CIGARS, AND CIGARETTES. JOHN SINCLAIR LTD., Newcastle-on-Tyne, England.
Filed July 6, 1920. Serial No. 134,607. PUBLISHED FEBRUARY 28, 1922.

155,528. HAIR NETS AND VEILS. SITROUX IMPORTING COMPANY, INC., New York, N. Y.
Filed November 22, 1921. Serial No. 155,785. PUBLISHED FEBRUARY 28, 1922.

155,529. CIGARETTE SNUFFERS, ASH TRAYS, MATCH STANDS, HUMIDORS, AND CIGARETTE AND CIGAR CASES. S'NUFF SMOKE SALES CO., New York, N. Y.
Filed October 20, 1921. Serial No. 154,385. PUBLISHED FEBRUARY 28, 1922.

155,530. EPSOM SALTS, POWDERED BORAX, LUMP ALUM, POWDERED ALUM, COPPERAS, AND SENNA LEAVES. J. M. SNYDER MED. CO., Jonesboro, Ark.
Filed February 24, 1920. Serial No. 128,802. PUBLISHED FEBRUARY 7, 1922.

155,531. NATURAL MINERAL WATERS. SOCIETE GENERALE DES EAUX MINERALES DE VITTEL, Vittel, France.
Filed December 19, 1921. Serial No. 156,930. PUBLISHED FEBRUARY 21, 1922.

155,532. NATURAL MINERAL WATERS. SOCIETE GENERALE DES EAUX MINERALES DE VITTEL, Vittel, France.
Filed December 19, 1921. Serial No. 156,931. PUBLISHED FEBRUARY 21, 1922.

155,533. COMPOSITION FOR THE TREATMENT OF ROUP, COLDS, DIPHTHERIA, CANKER, AND CHICKEN POX AMONG FOWL. HARRY M. SPAHR, Woodsboro, Md.
Filed November 26, 1921. Serial No. 155,979. PUBLISHED FEBRUARY 28, 1922.

155,534. WOVEN COTTON FABRICS IN THE PIECE. GEORGE ALBERT STAFFORD, New York, N. Y.
Filed October 29, 1920. Serial No. 138,965. PUBLISHED FEBRUARY 14, 1922.

155,535. CEDAR CHESTS. THE STANDARD RED CEDAR CHEST CO., Altavista, Va.
Filed February 17, 1921. Serial No. 143,719. PUBLISHED FEBRUARY 28, 1922.

155,536. A PREPARATION SPECIFIC FOR EPILEPSY. JOSEPH ERNEST STANTON, Montreal, Quebec, Canada.
Filed February 17, 1921. Serial No. 143,721. PUBLISHED FEBRUARY 7, 1922.

155,537. CERTAIN ALUMINUM WARES. STERLING SALES COMPANY, Milwaukee, Wis.
Filed March 29, 1919. Serial No. 117,023. PUBLISHED DECEMBER 9, 1919.

155,538. POULTRY REMEDY FOR ROUP, CHOLERA, GAPS, LIVER CLEANSER, AND WHITE DIARRHEA. EDWIN S. STICKEL, Bloomington, Ill.
Filed January 20, 1921. Serial No. 142,535. PUBLISHED JANUARY 31, 1922.

155,539. LAXATIVE. GEORGE F. STIER, Cincinnati, Ohio.
Filed August 15, 1921. Serial No. 151,811. PUBLISHED JANUARY 31, 1922.

155,540. MEDICINAL PREPARATIONS CALCIUM ORTHO-BENZYL OXY-BENZOATE. SWAN-MYERS CO., Indianapolis, Ind.
Filed October 24, 1921. Serial No. 154,538. PUBLISHED FEBRUARY 7, 1922.

155,541. SOAPS. HENRY THAYER & CO., INC., Cambridge, Mass.
Filed January 13, 1919. Serial No. 115,166. PUBLISHED APRIL 13, 1920.

155,542. EXTRACT OF WOOD, PARTICULARLY OF QUEBRACHO WOOD FOR TANNING PURPOSES. ERNESTO TORNQUIST & CO. LIMITADA, Buenos Aires, Argentina.
Filed August 5, 1921. Serial No. 151,495. PUBLISHED JANUARY 31, 1922.

155,543. INSECTICIDES. TRAGER MANUFACTURING COMPANY, Scranton, Pa.
Filed August 5, 1920. Serial No. 135,830. PUBLISHED JANUARY 31, 1922.

155,544. OINTMENT USED IN THE TREATMENT OF CORNS. PHILLIP J. TREVARROW, Flint, Mich.
Filed June 11, 1921. Serial No. 149,036. PUBLISHED JANUARY 31, 1922.

155,545. MATCHES OF ALL KINDS. UNION ALLUMETTIÈRE SOCIÉTÉ ANONYME, Brussels, Belgium.
Filed July 25, 1921. Serial No. 150,947. PUBLISHED JANUARY 31, 1922.

155,546. TYPEWRITER RIBBONS AND CARBON PAPER. U. S. MANIFOLD COMPANY, Chicago, Ill.
Filed January 6, 1921. Serial No. 141,930. PUBLISHED JANUARY 17, 1922.

155,547. PLAYING CARDS. THE UNITED STATES PLAYING CARD COMPANY, Cincinnati, Ohio.
Filed July 29, 1921. Serial No. 151,122. PUBLISHED FEBRUARY 28, 1922.

155,548. POWDER PUFFS. VALMONT MFG. CO., INC., Brooklyn, N. Y.
Filed January 12, 1922. Serial No. 157,862. PUBLISHED FEBRUARY 28, 1922.

155,549. VEILS AND VEILINGS AND NETTINGS IN THE PIECE. VAN RAALTE COMPANY, INC., New York, N. Y.
Filed May 10, 1921. Serial No. 147,540. PUBLISHED FEBRUARY 28, 1922.

155,550. TOBACCO PIPES AND CIGAR AND CIGARETTE HOLDERS NOT OF PRECIOUS METALS OR PLATED WITH PRECIOUS METAL. COMOY VERGUET, St. Claude, France.
Filed May 17, 1918. Serial No. 110,970. PUBLISHED JANUARY 31, 1922.

155,551. CERTAIN NAMED MOPS, BRUSHES, AND DUSTERS. BURPEE E. VINER, Hartford, Conn.
Filed October 10, 1921. Serial No. 153,961. PUBLISHED FEBRUARY 21, 1922.

155,552. VITAMINES FOR USE AS A GENERAL TONIC. THE VITAMON CORPORATION, New York, N. Y.
Filed September 28, 1921. Serial No. 153,487. PUBLISHED JANUARY 17, 1922.

155,553. PERFUMES, TOILET WATERS, BRILLIANTINE, FACE LOTION, AND FACE POWDER. MARIE MARTHE RICHARD VVE. GRENOVILLE, Asnieres, France.
Filed March 24, 1921. Serial No. 145,195. PUBLISHED FEBRUARY 21, 1922.

155,554. NONALCOHOLIC, NONCEREAL, MALTLESS BEVERAGE SOLD AS A SOFT DRINK. THE W. T. WAGNER'S SONS COMPANY, Cincinnati, Ohio.
Filed January 3, 1922. Serial No. 157,467. PUBLISHED FEBRUARY 21, 1922.

155,555. CHILDREN'S WATER-COLOR PALETTES. WALLBRUNN, KLING & CO., Chicago, Ill.
Filed December 14, 1921. Serial No. 156,729. PUBLISHED FEBRUARY 21, 1922.

155,556. LIQUID STOVE CLEANSERS. WALMAR LABORATORY, Oshkosh, Wis.
Filed September 6, 1921. Serial No. 152,663. PUBLISHED JANUARY 24, 1922.

155,557. CERTAIN NAMED PAPER. S. WALTER, INC., Philadelphia, Pa.
Filed October 6, 1921. Serial No. 153,832. PUBLISHED JANUARY 31, 1922.

155,558. A MEDICINE IN TABLET FORM CONTAINING TWO GRAINS OF ACETPHENETIDINE, THREE GRAINS OF ACETYLSALICYLIC ACID, AND ONE-HALF GRAIN OF CAFFEINE. WILLIAM R. WARNER & CO. INC., Wilmington, Del.; New York, N. Y., and St. Louis, Mo.
Filed October 26, 1921. Serial No. 154,630. PUBLISHED FEBRUARY 7, 1922.

155,559. ORGANS, AUTOMATIC ORGANS, AND ORCHESTRIONS. M. WELTE & SONS, INC., Poughkeepsie and New York, N. Y., assignor to Welte-Mignon Corporation, New York, N. Y., a Corporation of New York.
Filed February 1, 1918. Serial No. 108,762. PUBLISHED FEBRUARY 14, 1922.

155,560. POTTERY WARE MADE FROM BURNED CLAY, WHETHER GLAZED OR UNGLAZED. THE WHEATLEY POTTERY COMPANY, Cincinnati, Ohio.
Filed June 10, 1921. Serial No. 148,959. PUBLISHED JANUARY 31, 1922.

155,561. SUBSTANCES SOLUBLE IN LIQUID HYDROCARBON TO MODIFY ITS ACTION AS MOTOR FUEL. J. RUSSELL WHITE, Greenridge, N. Y.
Filed October 22, 1921. Serial No. 154,467. PUBLISHED FEBRUARY 7, 1922.

155,562. MESH BAGS COMPRISED WHOLLY OR IN PART OF PRECIOUS METAL. WHITING & DAVIS COMPANY, Plainville, Mass.
Filed August 25, 1921. Serial No. 152,195. PUBLISHED JANUARY 17, 1922.

155,563. PAINTBRUSHES. THE M. I. WILCOX COMPANY, Toledo, Ohio.
Filed January 9, 1922. Serial No. 157,703. PUBLISHED FEBRUARY 28, 1922.

155,564. WASHING COMPOUND WITH INCIDENTAL WATER-SOFTENING PROPERTIES. WILSON-IMPERIAL COMPANY, Newark, N. J.
Filed August 24, 1921. Serial No. 152,155. PUBLISHED FEBRUARY 21, 1922.

155,565. ETHYL ESTERS OF CHAULMOOGRA OIL. WINTHROP CHEMICAL COMPANY, INC., New York, N. Y.
Filed October 26, 1921. Serial No. 154,629. PUBLISHED FEBRUARY 7, 1922.

155,566. CERTAIN NAMED ARTICLES OF JEWELRY. J. R. WOOD & SONS, New York, N. Y.
Filed October 15, 1920. Serial No. 138,366. PUBLISHED FEBRUARY 14, 1922.

155,567. POLISH FOR AUTOMOBILES, PIANOS, FINE FURNITURE, AND ALL KINDS OF WOODWORK. WORLD WONDER PRODUCT COMPANY, Youngstown, Ohio.
Filed October 22, 1921. Serial No. 154,632. PUBLISHED JANUARY 31, 1922.

155,568. BOOT, SHOE, AND LEATHER POLISHES, DRESSINGS, AND OILS. YANKEE POLISH CO., New York, N. Y.
Filed March 5, 1920. Serial No. 129,215. PUBLISHED JUNE 15, 1920.

TRADE-MARK REGISTRATIONS GRANTED

[ACT OF MARCH 19, 1920, SEC. 1 (b)].

MAY 30, 1922.

THESE REGISTRATIONS ARE NOT SUBJECT TO OPPOSITION.

155,569. (CLASS 37. PAPER AND STATIONERY.) J. W. BUTLER PAPER COMPANY, Chicago, Ill. Filed Nov. 22, 1920. Serial No. 139,940.

AMERICAN TRUST BOND

Particular description of goods.—Bond Paper.
Claims use since 1915.

155,570. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DOSTER-NORTHINGTON DRUG CO., Birmingham, Ala. Filed Oct. 27, 1921. Serial No. 154,638.

BOIL-EASE

Particular description of goods.—Medicinal Salve for Boils, Carbuncles, Burns, Sores, Wounds, Bites of Insects, Felons, Corns, and Bunions.
Claims use since the beginning of 1912.

155,571. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) EVERYBODY'S TALKING MACHINE COMPANY, Philadelphia, Pa. Filed Jan. 25, 1922. Serial No. 158,420.

UMANTONE

Particular description of goods.—Reproducers and Needles for Talking Machines.
Claims use since Oct. 10, 1919.

155,572. (CLASS 45. BEVERAGES, NONALCOHOLIC.) H. C. HUBBARD CO., Humboldt, Iowa. Filed Aug. 24, 1921. Serial No. 152,128.

El-Pep
"THE DRINK THAT TICKLES THE PALATE"

Particular description of goods.—A Nonalcoholic, Maltless Beverage Sold as a Soft Drink.
Claims use since Mar. 1, 1921.

155,573. (CLASS 37. PAPER AND STATIONERY.) SAMUEL JONES & CO., Newark, N. J. Filed Apr. 15, 1920. Serial No. 131,174.

LI
FLAT

Particular description of goods.—Paper Coated on One Side with Mucilage and Used for Labels, Book and Box Cover Paper Coated and Embossed to Imitate Leather, Book and Box Cover Paper Coated to Imitate Marble, Book and Box Cover Paper Coated with Clay to Produce an Enamel Effect, and Paper Used for Printing, Lithographing, and Writing Purposes.
Claims use since January, 1911.

155,574. (CLASS 31. FILTERS AND REFRIGERATORS.) WM. W. KLEMM, Chicago, Ill. Filed May 7, 1921. Serial No. 147,352.

National

Particular description of goods.—Filters, Coolers, and Bottle Washers.
Claims use since Jan. 1, 1902.

155,575. (CLASS 39. CLOTHING.) R. H. MACY & CO., New York, N. Y. Filed Jan. 9, 1918. Serial No. 108,389.

NEVER-SLIP

Particular description of goods.—Garters.
Claims use since Oct. 29, 1917.

155,576. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SAMUEL M. MARCUS, Chicago, Ill. Filed Sept. 16, 1921. Serial No. 153,010.

GLANDATED IRON

Particular description of goods.—Medicines Containing Iron and Gland Extract and Used as a General Tonic.
Claims use since Dec. 1, 1919.

155,577. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MARSHALL FIELD & COMPANY, Chicago, Ill. Filed Nov. 27, 1920. Serial No. 140,283.

Particular description of goods.—Sheets.
Claims use since 1908.

155,578. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ODORBASE MANUFACTURING COMPANY, New York, N. Y. Filed Oct. 29, 1921. Serial No. 154,753.

ODORBASE

Particular description of goods.—Concentrated Perfumes.
Claims use since September, 1908.

155,579. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) THE OHIO MATCH COMPANY, Wadsworth, Ohio. Filed Feb. 17, 1922. Serial No. 159,479.

OHIO BLUE TIP MATCHES

Particular description of goods.—Matches.
Claims use since Mar. 6, 1905.

155,580. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) THE OHIO MATCH COMPANY, Wadsworth, Ohio. Filed Feb. 17, 1922. Serial No. 159,480.

THE OHIO NOISELESS MATCH

Particular description of goods.—Matches.
Claims use since Sept. 9, 1907.

155,581. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PACIFIC MILLS, Lawrence and Boston, Mass. Filed Jan. 22, 1921. Serial No. 142,653.

MERIT

The lining of the drawing being to indicate shade.
Particular description of goods.—Cotton Piece Goods.
Claims use since December, 1915.

155,582. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE RAT BISCUIT COMPANY, Springfield, Ohio. Filed Dec. 12, 1921. Serial No. 156,599.

RAT BIS-KIT

Particular description of goods.—Poison for Rats, Mice, and Insects.
Claims use since on or about May 1, 1901.

155,583. (CLASS 37. PAPER AND STATIONERY.) SEAMAN-PATRICK PAPER CO., Detroit, Mich. Filed June 29, 1921. Serial No. 149,821.

Brocade Cover

Particular description of goods.—Paper, Including Catalog Covers, Booklet Covers, Announcements, Window Cards, Programs, Menus, Calendars, House-Organ Covers, and Portfolio Covers.
Claims use since Mar. 28, 1921.

155,584. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE STEARNS & FOSTER COMPANY, Lockland, Ohio. Filed Mar. 2, 1922. Serial No. 160,090.

LENOX

Particular description of goods.—Mattresses.
Claims use since Oct. 23, 1900.

155,585. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE STEARNS & FOSTER COMPANY, Lockland, Ohio. Filed Mar. 2, 1922. Serial No. 160,095.

SAXON

Particular description of goods.—Mattresses
Claims use since Jan. 9, 1909.

155,586. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE STEARNS & FOSTER COMPANY, Lockland, Ohio. Filed Mar. 2, 1922. Serial No. 160,096.

YORK

Particular description of goods.—Mattresses.
Claims use since July 28, 1904.

155,587. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE STEARNS & FOSTER COMPANY, Lockland, Ohio. Filed Mar. 2, 1922. Serial No. 160,098.

JERSEY

Particular description of goods.—Mattresses.
Claims use since May 27, 1908.

155,588. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE STEARNS & FOSTER COMPANY, Lockland, Ohio. Filed Mar. 2, 1922. Serial No. 160,099.

WINDSOR

Particular description of goods.—Mattresses.
Claims use since July 26, 1899.

155,589. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANNIE STEVENS, Gorham, Me. Filed Oct. 14, 1921. Serial No. 154,095.

STEVENS

Particular description of goods.—A Medicinal Preparation for Epilepsy.
Claims use since 1905.

155,590. (CLASS 32. FURNITURE AND UPHOLSTERY.) UTICA BEDDING FACTORY, INC., Utica, N. Y. Filed Dec. 31, 1921. Serial No. 157,392.

Avon

Particular description of goods.—Mattresses.
Claims use since Feb. 1, 1917.

155,591. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) WATERBURY COMPANY, Jersey City, N. J., and New York, N. Y. Filed Dec. 13, 1921. Serial No. 156,667.

PEERLESS

Particular description of goods.—Music Wire.
Claims use since July 24, 1905.

155,592. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WELLINGTON, SEARS & COMPANY, Boston, Mass. Filed Nov. 10, 1921. Serial No. 155,289.

Particular description of goods.—Cotton Drills.
Claims use since Oct. 15, 1903.

TRADE-MARK REGISTRATIONS RENEWED.

20,363. HEATING FURNACES. Registered November 10, 1891. H. GILBERT HART & Co., Utica, N. Y.; Hart and Crouse Co., a Corporation of New York, assignee. Renewed November 10, 1921.

20,503. CORSETS. Registered December 29, 1891. J. SIEGEL & Co., Chicago, Ill., Detroit, Mich., and New York, N. Y. American Lady Corset Company, Detroit, Mich., assignee. Renewed December 29, 1921.

20,552. A DENTIFRICE. Registered January 5, 1892. WILLIAM HENRY HALL, New York, N. Y.; Hall & Ruckel, a Corporation of New York, assignee. Renewed January 5, 1922.

21,647. MEDICAL COMPOUNDS FOR THE CURE OF LUNG AND THROAT DISEASES. Registered August 16, 1892. THE VAPO-CRESOLENE COMPANY, Stanley, N. J., and New York, N. Y. Renewed August 16, 1922.

21,694. A SOCIETY JOURNAL. Registered August 30, 1892. THE TOWN TOPICS PUBLISHING COMPANY, New York, N. Y. Renewed August 30, 1922.

21,949. VARNISH. Registered November 8, 1892. MAYER & LOEWENSTEIN, New York, N. Y. Renewed November 8, 1922.

LABELS

REGISTERED MAY 30, 1922.

24,393.—*Title:* "AIVORY." (For Socks.) AIVORY SOX CO., New York, N. Y. Filed April 10, 1922.

24,394.—*Title:* "BARKER'S ROUP REMEDY." (For a Remedy for Roup in Poultry and Birds.) THE BARKER, MOORE & MEIN MEDICINE CO., INC., Philadelphia, Pa. Filed April 13, 1922.

24,395.—*Title:* "BARKER'S LICE POWDER." (For Lice Powder for Poultry, Cows, Horses, and Hogs.) THE BARKER, MOORE & MEIN MEDICINE CO., INC., Philadelphia, Pa. Filed April 13, 1922.

24,396.—*Title:* "FOREST PARK." (For Butter.) THE BENNETT CREAMERY CO., Ottawa, Kans. Filed April 12, 1922.

24,397.—*Title:* "FLIVERSTICK CANDY." (For Candy.) CANDY CRAFT, INC., Chicago, Ill. Filed Apr. 12, 1922.

24,398.—*Title:* "POLO BRAND." (For Men's and Women's Sweaters.) CLAWSON & WILSON COMPANY, Buffalo, N. Y. Filed April 12, 1922.

24,399.—*Title:* "DEERFIELD BRAND." (For Breakfast Sausage.) DETROIT PACKING CO., Detroit, Mich. Filed April 10, 1922.

24,400.—*Title:* "DEXTER'S HOT CROSS BUNS." (For Bread.) THE DEXTER BAKING COMPANY, Waterbury, Conn. Filed April 5, 1922.

24,401.—*Title:* "GELFAND'S COMBINATION RELISH." (For Relish.) SIMON GELFAND, Baltimore, Md. Filed April 12, 1922.

24,402.—*Title:* "GELFAND'S OLIVE MAYONNAISE." (For Mayonnaise (a Food Dressing).) SIMON GELFAND, Baltimore, Md. Filed April 12, 1922.

24,403.—*Title:* "GELFAND'S COMBINATION RELISH." (For Relish.) SIMON GELFAND, Baltimore, Md. Filed April 12, 1922.

24,404.—*Title:* "GRAND VIEW." (For Oranges.) GRAND VIEW HEIGHTS CITRUS ASSN., Terra Bella, Calif. Filed April 10, 1922.

24,405.—*Title:* "ULTRA." (For Oranges.) GRAND VIEW HEIGHTS CITRUS ASSN., Terra Bella, Calif. Filed April 10, 1922.

24,406.—*Title:* "BUFFALO BRAND." (For Cheese.) HASSELBECK CHEESE CO., Buffalo, N. Y. Filed April 12, 1922.

24,407.—*Title:* "BIG PIG." (For Digester Tankage.) INDIANAPOLIS ABATTOIR COMPANY, Indianapolis, Ind. Filed April 10, 1922.

24,408.—*Title:* "JOHNSTON'S SCOTCH FLOOR ENAMEL." (For Cans Containing Floor Enamel.) THE R. F. JOHNSTON PAINT COMPANY, Cincinnati, Ohio. Filed April 8, 1922.

24,409.—*Title:* "KEN." (For Soap.) KENDALL PRODUCTS CORPORATION, New York, N. Y. Filed April 5, 1922.

24,410.—*Title:* "SWEETANDGOOD." (For Cookies.) MATTHAI BAKING CO., Tacoma, Wash. Filed April 10, 1922.

24,411.—*Title:* "WAINWRIGHT PISTONS." (For Pistons.) MCQUAY-NORRIS MFG. CO. OF INDIANA, INC., Connersville, Ind. Filed April 13, 1922.

24,412.—*Title:* "WAINWRIGHT PISTON PINS." (For Piston Pins.) MCQUAY-NORRIS MFG. CO. OF INDIANA, INC., Connersville, Ind. Filed April 13, 1922.

24,413.—*Title:* "TIP-TOP." (For Loaves of Bread.) MILLER-PARROTT BAKING CO., Terre Haute, Ind. Filed April 10, 1922.

24,414.—*Title:* "COLLEGE DAYS." (For Boxes Containing Candy.) MILWAUKEE PAPER BOX COMPANY, Milwaukee, Wis. Filed April 6, 1922.

24,415.—*Title:* "MINNESOTA VALLEY." (For Canned Peas.) MINNESOTA VALLEY CANNING CO., Le Sueur, Minn. Filed April 10, 1922.

24,416.—*Title:* "ARTESIAN." (For Canned Peas.) MINNESOTA VALLEY CANNING CO., Le Sueur, Minn. Filed April 10, 1922.

24,417.—*Title:* "LE SUEUR." (For Canned Peas.) MINNESOTA VALLEY CANNING CO., Le Sueur, Minn. Filed April 10, 1922.

24,418.—*Title:* "SANCHO." (For Cigars.) CHAS. J. NIELSEN'S SONS, Brooklyn, N. Y. Filed April 5, 1922.

24,419.—*Title:* "ROSSMORE." (For Cigars.) CHAS. J. NIELSEN'S SONS, Brooklyn, N. Y. Filed April 5, 1922.

24,420.—*Title:* "NIELSEN'S HAVANA." (For Cigars.) CHAS. J. NIELSEN'S SONS, Brooklyn, N. Y. Filed April 5, 1922.

24,421.—*Title:* "DOVE BRAND OLIVE OIL." (For Olive Oil.) GEORGE H. NEOFES, Wheeling, W. Va. Filed April 8, 1922.

24,422.—*Title:* "WALSTEN." (For Cigars.) A. S. PFLIEGER & SON, Ironton, Ohio. Filed April 6, 1922.

24,423.—*Title:* "PERFECT BREAD." (For Bread.) PERFECT SYSTEM BAKERIES, Oklahoma, Okla. Filed January 3, 1922.

24,424.—*Title:* "PAL-A-TABLE." (For Grapefruit.) ALBERT ROKEN, New York, N. Y. Filed April 12, 1922.

24,425.—*Title:* "BRAN BREAD." (For Loaves of Bread.) SCHULZE BAKING COMPANY, Chicago, Ill. Filed April 7, 1922.

24,426. *Title:* "TIP TOP QUALITY MOV-KOW." (For Chocolate Coated Ice Cream Bar.) VINCENNES MILK & ICE CREAM CO., Vincennes, Ind. Filed April 10, 1922.

24,427.—*Title:* "TREASURE LOAF." (For Bread.) WAXTWELL PAPER COMPANY, Grand Rapids, Mich. Filed April 6, 1922.

24,428.—*Title:* "MET-HOW." (For Apples.) WENATCHEE OKANOGAN WAREHOUSING CO., Pateros, Wash. Filed April 10, 1922.

24,429.—*Title:* "PYRAMID MALT EXTRACT." (For Malt Extracts.) ALBERT WIELICH, New York, N. Y. Filed April 6, 1922.

24,430.—*Title:* "WYANDOTTE." (For California Ripe Olives.) WYANDOTTE OLIVE GROWERS ASSOCIATION, Oroville, Calif. Filed April 10, 1922.

PRINTS

REGISTERED MAY 30, 1922.

6.131.—*Title:* "I LOVE MY FLIVERSTICK CANDY." (For Advertising Purposes for Candy.) CANDY CRAFT, INC., Chicago, Ill. Filed April 12, 1922.

6.132.—*Title:* "COOPERS UNION SUITS MADE BY COOPERS." (For Advertising Purposes for Men's, Women's, and Children's Underwear.) COOPER UNDERWEAR COMPANY, Kenosha, Wis. Filed April 5, 1922.

6.133.—*Title:* "THE NEW THREE PASSENGER HAYNES 55 COUPELET." (For Advertising Purposes for Automobiles.) THE HAYNES AUTOMOBILE COMPANY, Kokomo, Ind. Filed April 8, 1922.

6.134.—*Title:* "LOVEJOY HYDRAULIC SHOCK ABSORBERS." (For Advertising Purposes for Shock Absorbers.) THE PACKARD ENGINEERING CO., Cleveland, Ohio. Filed November 5, 1921.

6.135.—*Title:* "LOVEJOY HYDRAULIC SHOCK ABSORBERS." (For Advertising Purposes for Shock Absorbers.) THE PACKARD ENGINEERING CO., Cleveland, Ohio. Filed November, 5, 1921.

6.136.—*Title:* "LOVEJOY HYDRAULIC SHOCK ABSORBERS." (For Advertising Purposes for Shock Absorbers.) THE PACKARD ENGINEERING CO., Cleveland, Ohio. Filed November 5, 1921.

6.137.—*Title:* "VAN HEUSEN THE WORLD'S SMARTEST COLLAR." (For Advertising Purposes for Collars.) PHILLIPS-JONES CORPORATION, New York, N. Y. Filed April 12, 1922.

6.138.—*Title:* "THE PHILLIPS CUFF SHIRT." (For Advertising Purposes for Shirts.) PHILLIPS-JONES CORPORATION, New York, N. Y. Filed April 12, 1922.

6.139.—*Title:* "ESKIMO PIE." (For Advertising Purposes for Confections.) RUSSELL STOVER COMPANY, Chicago, Ill. Filed April 6, 1922.

6.140.—*Title:* "THE PRICELESS INGREDIENT." (For Advertising Purposes for Drugs.) E. R. SQUIBB & SONS, New York, N. Y. Filed April 5, 1922.

6.141.—*Title:* "'WITH BRAINS, SIR.'" (For Advertising Purposes for Drugs.) E. R. SQUIBB & SONS, New York, N. Y. Filed April 5, 1922.

6.142.—*Title:* "BETTER THAN RICHES." (For Advertising Purposes for Drugs.) E. R. SQUIBB & SONS, New York, N. Y. Filed April 5, 1922.

6.143.—*Title:* "THE GREATER RESPONSIBILITY." (For Advertising Purposes for Drugs.) E. R. SQUIBB & SONS, New York, N. Y. Filed April 5, 1922.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

CLEMENT *v.* MCQUARRIE AND BULLARD.

No. 1464. Decided February 6, 1922.

1. PATENTS — INTERFERENCE — CONCURRING DECISIONS SUSTAINED.

Where the three tribunals of the Patent Office concurred in a finding in interference proceedings, the opposing party cannot prevail on appeal unless he establishes clearly and convincingly that the Commissioner was wrong.

2. SAME—SAME—CONCEPTION OF JOINT APPLICANTS.

A contention in interference proceedings that joint applicants had failed to establish joint conception is technical and is not favored by the law.

3. SAME—SAME—JOINT INVENTION PRESUMED FROM JOINT APPLICATION.

A presumption of joint invention arises from the filing of a joint application, which cannot be overcome except by clear and unequivocal evidence.

4. SAME—SAME—EVIDENCE HELD TO SHOW JOINT INVENTION.

Evidence that joint applicants were employed by the same company and that they began working together on the device prior to the conception by the adverse party in interference proceedings *Held* to establish a joint conception by them prior to the conception of the adverse party.

5. SAME—SAME—EVIDENCE HELD TO SHOW DILIGENCE.

Evidence that prior inventors were preparing their applications at the time the subsequent inventor entered the field and continued their efforts in that direction without unreasonable delay, though they may not have pursued the most expeditious course, shows reasonable diligence, which is all they were required to exert.

6. SAME—SAME—DILIGENCE A QUESTION OF FACT.

Whether there was diligence by the senior inventors is a question of fact, as to which the concurrent findings of the three Patent Office tribunals will not be reversed unless palpably wrong.

Mr. Horace A. Dodge and *Mr. William G. McKnight* for Clement.

Mr. J. G. Roberts and *Mr. G. Willard Rich* for McQuarrie et al.

SMYTH, *C. J.:*

Clement complains of a decision of the Commissioner of Patents in an interference proceeding involving semiautomatic telephone systems. The issue consists of twenty-eight counts, of which the following are examples:

1. In a telephone exchange system, the combination with a number of operators' connecting circuits, of mechanical line switching mechanism for each connecting circuit adapted to connect said circuit with the desired line, a controller for operating any one of said mechanisms, means for associating said controller with any one of said connecting circuits to operate its individual switching mechanism, and means actuated when said controller is taken for use by one connecting circuit for automatically locking out the other circuits therefrom.

2. The combination with a plurality of connecting circuits, of switching mechanism associated therewith, a sending device, said circuits being all normally in operative relation to said sending device, and electromagnetic means operated when said sending device is taken for use by one circuit for removing the remaining circuits from operative relation to said sending device.

13. The combination with a plurality of connecting circuits of switching mechanism associated therewith, a series of sending mechanisms, and means whereby the first idle sending mechanism of the series may be automatically associated with any one of said circuits.

14. The combination with a number of connecting circuits, of a mechanical line switching mechanism for each circuit, a series of sending mechanisms, and means whereby the first idle sending mechanism may be automatically associated with any one of said circuits taken for use.

There are two applications of McQuarrie and Bullard's and one of Clement's. McQuarrie and Bullard's first was filed September 27, 1906, and the second, February 5, 1907. It is conceded that Clement is entitled to March 15, 1906, as the date of his conception and constructive reduction to practice. The three tribunals of the Patent Office found against Clement. He cannot prevail here unless he establishes clearly and convincingly that the Commissioner was wrong. (*Chalman* v. *De Voe*, this day decided.) Clement took no testimony, but stood on the date just mentioned. He challenges the correctness of the Commissioner's decision upon two grounds, namely, (*a*) that McQuarrie and Bullard failed to establish joint conception prior to his date, and (*b*) that, if they had established it, they were not diligent when he came into the field.

The first contention is technical, and is not favored by the law. (*Sieber & Trussel Manufacturing Company* v. *Chicago Binder and File Company*, 177 Fed., 429; *De Laski & Thropp Circular Woven Tire Company* v. *William R. Thropp & Sons Company*, 218 Fed., 458; *Selectasine Patents Company* v. *Prest-O-Graph Company*, 267 Fed., 840.)

There is a presumption of joint invention flowing from the filing of a joint application which cannot be overcome except by clear and unequivocal evidence. (*Consolidated Bunging Apparatus Company* v. *Woerle*, 29 Fed., 449; *Selectasine Patents Company* v. *Prest-O-Graph Company*, supra; *Lemp* v. *Randall*, 33 App. D. C., 430; *Yemiker* v. *Nesbitt*, 48 App. D. C., 250.)

Moreover, there is testimony, apart from the application, that supports the conclusion of joint invention. At the time when it is said the invention was conceived by them they were employed by the Western Electric Company. McQuarrie was in charge of telephone-exchange development, and Bullard was a telephone engineer who reported to him. McQuarrie said that he and Bullard began to work together on semiautomatic systems in the latter part of 1904 or early in 1905; that in 1904 they had formed some idea with regard to the equipment, prepared some circuits, and made a few demonstrations in the laboratory; and that the system described in the joint applications involved in this case gives a detailed description of the one they were working on at that time. Nothing in the record is sufficient to overcome the effect of the applications coupled with this testimony, nor even of the applications when taken alone.

With respect to the question of priority, it is clearly established that McQuarrie and Bullard had knowledge of the invention before March 15, 1906. This is not seriously denied. As to their diligence, the record shows that they were at work preparing their applications before and at the time Clement entered the field, and continued their efforts in that direction without unreasonable delay until their applications were filed. Perhaps, as was observed by the Examiner of Interferences, they did not pursue the most expeditious course, but they were doing something toward the end in view from the date of conception until the cases were actually filed. Being the first to conceive, they were not required to exert more than reasonable diligence. (*Dickson* v. *Swinehart*, 49 App. D. C., 222; 263 Fed., 474.) There is no analogy between the present case and *Clement* v. *Roberts* (273 Fed., 757). There the court found that Roberts did nothing for nearly nine months upon the invention in issue. He devoted his time to an improvement not called for by the claims of the interference.

Whether there was diligence is a question of fact. We certainly cannot say on this record that the concurring opinions of the three tribunals of the Patent Office on this question are palpably wrong. (*Thomson* v *Pearsons*, 50 App. D. C., 273; 270 Fed., 1013; *Anglada* v. *Moyer*, 50 App. D. C., 395; 273 Fed., 359.)

The decision of the Commissioner of Patents is affirmed.

Affirmed.

Court of Appeals of the District of Columbia.

IN RE HASKELL.

Nos. 1471 and 1472. Decided February 6, 1922.

PATENTS — PATENTABILITY — CLAIMS FOR CEMENT HELD NOT ANTICIPATED BY GENERAL STATEMENTS IN PRIOR PATENTS.

Claims for a process for making a cement from a mixture of black albumen and disodium silicate, substantially, though not actually, in the proportions specified, whereby the mixture is given a sirupy consistency, and for the product of such process *Held* not anticipated by a patent dated 22 years before the filing of the application, which stated generally that all albumens acted as acids toward alkalies and formed double salts, especially where, 10 years after the earlier patent, an expert had stated that the mixture disclosed thereby had not been used with good results.

Mr. Fred L. Chappell and *Mr. Otis A. Earl* for Haskell.

Mr. T. A. Hostetler for the Commissioner of Patents.

ROBB, *J.:*

These are appeals from decision of the Patent Office rejecting claims 7 and 8 in the first case and claim 6 in the second, the three rejected claims reading as follows:

7. Process of preparing and applying cement consisting of dissolving black albumen in water, adding thereto disodium silicate, mixing the same until the mixture is homogeneous in substantially the proportions specified, applying the same to surfaces to be joined, and applying heat and pressure to set the same, as specified.

8. Process of preparing and applying cement consisting of dissolving black albumen in water, adding thereto disodium silicate, mixing the same until the mixture is homogeneous in substantially the proportion specified, applying the same to surfaces to be joined, and applying heat and pressure to set the same, thereafter boiling the laminated wood to completely soften and heat its texture and molding the same under heat and pressure to desired form.

6. A cement consisting of a mixture of a solution of blood albumen and silicate of soda dissolved and chemically combined together and of a syrupy consistency.

Inasmuch as the application in the first case is a division of the application in the second, we will consider the latter case first.

In his specification applicant says that the objects of his invention—

are to provide an improved waterproof cement or glue which shall resist the action of the elements in use to an unusual degree and is especially well adapted to cementing or gluing veneer for canoes, boats, or for aeroplanes, including the wings, body and other parts. * * * In the preparation of my improved waterproof glue or cement I mix and dissolve black albumen, which is dried blood, in water in the proportion of forty-five (45) per cent of blood to fifty-five (55) per cent of water by weight and stir the same to dissolve the said black albumen as fully as it is possible to do it at the usual atmospheric temperature of a room at, say, about 70°. I place this material in a suitable stirring apparatus so that the same is stirred very thoroughly and continuously for several hours, usually about six hours. This insures as complete solution of black albumen or blood in the water as is possible to accomplish at the temperatures indicated and makes a homogeneous mixture. * * * I mix this blood preparation with a heavy grade of silicate of soda in the proportion by weight of five parts of dried blood to one part of silicate of soda solution. * * * Apparently reaction takes place between these ingredients. I stir and mix the same thoroughly until the mixture has an appearance similar to heavy molasses.

The cement is applied to veneers in the usual way and the material is then subjected to heat at substantially the boiling point of water. The specification further states that—

there is slight variation possible from these proportions but to secure the thickening or syrupy effect the proportions of blood to silicate cannot be much varied.

Applicant also says in his specification that veneer put together with his cement can be molded afterwards as desired; that he has boiled samples continuously for four months without apparent injury.

The Examiner was of the view—

that applicant has probably discovered certain proportions of albumen and silicate which produce valuable results, such as were not appreciated by the patentee Gardner,

and therefore allowed claims 1 to 5. He, however, denied the claim here involved because persuaded that the "broad idea" of this claim is disclosed in the Gardner patent. This view was adopted by

the Examiners-in-Chief. On appeal the Assistant Commissioner said:

> There is no doubt that an applicant who has made a patentable discovery in a composition of matter should ordinarily be allowed latitude for these proportions that would prevent an unauthorized user from varying his recipe slightly while obtaining substantially the same desired result without paying tribute for the information given the public by the discovery.

Nevertheless the Assistant Commissioner reached the conclusion that, in view of what he conceived to be limitations in the specification, the appealed claim was not allowable.

The British patent to Gardner, considered by the lower tribunals, is dated October 1, 1896, or about twenty-two years before the present application was filed. The subject of that invention was a waterproof glue and in the specification it is stated that—

> all albumins possess towards alkalic substances the character of acid because they unite and form salts i. e. double salts.

Among the eight alkalic substances mentioned as "capable of being employed" are silicates, and among the four albumins is blood. A reading of the very general terms of the specification convinces us, as it apparently did the Patent Office tribunals, that Gardner had no conception of the invention made by Haskell. It is one thing to conceive the idea that a certain result is possible and quite another thing to *demonstrate* the possibility, that is, actually devise means to accomplish the result and convert the possibility into a reality. In the affidavit filed by Mr. Haskell in support of his application he sets forth that it is not possible, in carrying out the Gardner process, to produce a material that even approximately approaches his own in strength and durability;

> that all other glue joints with which he has been familiar prior to his invention herein, or that he has ever seen advertised by others as made under the Russian method or under secret process, have yielded and broken down after a period of one to three hours of boiling, whereas he has boiled samples of his material for a period of four months, as above indicated, without effect upon the joint, * * * that the joint resulting from his improved material is of such quality and character that the laminated board made up of veneers is capable of being boiled and molded, retaining its form without breaking the joint, etc.

As further evidence that applicant has made a valuable discovery, our attention has been invited to the action of the Commissioner, who, early in 1919, prohibited applicant, under the provisions of the act of October 6, 1917, from making public his invention at that time, because it had—

> been found to contain subject matter which might be detrimental to the public safety or assist the enemy in the present war.

Manifestly this action would not have been necessary had the Gardner disclosure really anticipated this invention. In the allowed claims the approximate proportions of the ingredients are supplied, but in each of the claims it is stated that the mixing must continue "until the mass becomes of a homogeneous sirupy consistency." Gardner evidently did not appreciate the necessity of combining the ingredients in the manner employed by the applicant and makes no mention of mixing such materials "until the mass becomes of a homogeneous sirupy consistency." This is important and goes far toward demonstrating that applicant and not Gardner really is the originator of the subject-matter of the claim here under consideration. Moreover, almost ten years after the grant of the Gardner patent, A. M. Luther, in his German patent, said:

> It is a well known fact that blood or blood albumin by itself as well as mixed with lime or alkalis, possesses adhesive properties. But it has as yet not been used with good results for gluing together pieces of wood, e. g., for veneering.

In other words, the British patent did not disclose to Luther, an expert, what the Patent Office has ruled, in effect, must have been disclosed to the applicant here. While applicant has stated in his specification that only slight variation from the given proportions is possible, he concededly has produced a result not contemplated before. Haskell has given the public a very useful and valuable material and we are not disposed, in such circumstances, to withhold from him adequate protection because of vague and general expressions in a patent more than twenty years old. The allowance of the five claims might be of little value without the appealed claim. That claim, in our view, goes no further than he has gone. It covers, and should cover, what he actually has done, and we think it should be allowed. (See *in re Lower*, 50 App., D. C., 159; 283 O. G., 183; 269 Fed., 675; *in re Huff*, 48 App., D. C., 258; 259 O. G., 386.)

What we have just said applies with equal force in No. 1471, since the same reference was relied upon in each case.

It follows that the two decisions appealed from must be reversed.

Reversed in No. 1471.

Reversed in No. 1472.

In this case Mr. Justice HOEHLING, of the Supreme Court of the District of Columbia, sat in the place of Mr. Chief Justice SMYTH.

ADJUDICATED PATENTS.

(U. S. D. C. Md.) The Gross patent, No. 1,380,058, claim 3, for automobile lamp, *Held* void for want of invention. *Gross* v. *Frank*, 278 Fed. Rep., 846.

(U. S. C. C. A. N. J.) The Row patent, No. 1,131,738, for an evaporator, claim 8, *Held* void for lack of invention. *Standard Water System Co.* v. *Griscom-Russell Co.*, 278 Fed. Rep., 703.

(U. S. D. C. Md.) The Smith patent, No. 1,307,708, for check book, valid and infringed. *International Flatstub Check Book Co.* v. *Young & Selden Co. of Baltimore City*, 278 Fed. Rep., 835.

PATENT SUITS.

[Notices under section 4921, Revised Statutes, as amended February 18, 1922.]

767,905, D. McR. Livingston, Cooling and condensing apparatus, suit filed May 11, 1922, U. S. D. C., Conn., Doc. 1597 Eq., *D. McR. Livingston* v. *G. & O. Mfg. Co., Inc.*

787,814, J. D. Wolf, Separation of metals from their ores, suit filed April 12, 1922, S. Div. U. S. D. C., N. D. Calif. (2nd Div.), Doc. Eq. 717, *Wolf Mineral Process Corporation* v. *Engels Copping Mining Co.;* same, U. S. D. C., N. D. Calif. (N. Div.), Doc. 65 Eq., *same* v. *Mountain Copper Co., Inc.*

803,684, J. A. Fleming, Instrument for converting alternating electric currents into continuous currents, suit filed April 24, 1922, S. Div. U. S. D. C., N. D. Calif. (2nd Div.), Doc. Eq. 721, *Radio Corporation of America* v. *Moorhead Laboratories, Inc.; Atlantic Pacific Radio Supplies Co., Inc.; H. M. Shaw; C. M. Whitney; Geo. C. Stephens; J. E. Allison; W. F. Williamson; T. J. Swift; R. B. Bain; A. A. Baxter; O. B. Moorhead; R. C. Hyde; C. Dornbach.*

810,067, W. D. Morrison, Machine for automatically segregating, measuring, and delivering molten glass, suit filed March 9, 1922, S. Div. U. S. D. C., N. D. Calif. (2nd Div.), Doc. Eq. 701, *J. Morrison* v. *Pacific Coast Glass Works.*

833,070, L. P. Lowe, Apparatus for making gas; 882,764, Process of making gas; suit filed March 10, 1922, U. S. D. C., N. D. Calif. (N. Div.), Doc. 158–Civ., *L. P. Lowe* v. *Sacramento Gas Co.*

882,764. (See 833,070.)

983,994, N. T. Harrington; 984,032, J. B. Seager, Carbureters, suit filed March 23, 1922, U. S. D. C., E. D. Mich. (S. Div.), Doc. 457, *J. B. Seager, C. S. Thomas, & C. B. Camp* v. *The Ireland & Matthews Mfg. Co.;* same, suit filed April 12, 1922, same. Doc. 464, *J. B. Seager & C. S. Thomas* v. *Michigan Lubrication Co.*

984,032. (See 983,994.)

1,050,564, E. Ruud, Water heaters, suit filed May 5, 1922, U. S. D. C., N. D. Ohio (E. Div.), Doc. 727, *Ruud Mfg. Co.* v. *Mustee Heater Co.*

1,216,140, A. Kurtz, Lining for hats, suit filed May 8, 1922, U. S. D. C., Conn., Doc. 1596 Eq., *A. Kurtz and Hat Lining Board of Trade, Inc.*, v. *Hartford Bandeau Co.*

1,270,379, J. L. Coffield, Gearing for washing machines, suit filed May 10, 1922, U. S. D. C., E. D. Mich. (S. Div.), Doc. 468, *J. L. Coffield* v. *Sunny Line Appliances, Inc.*

1,339,466, W. O. Lum, Controlling means for electric circuits; 1,344,260, H. R. Canfield, Methods and means for controlling electric circuits, suit filed May 6, 1922, U. S. D. C., N. D. Ohio (E. Div.), Doc. 728, *General Electric Co.* v. *The Cutler-Hammer Mfg. Co.*

1,344,260. (See 1,339,466.)

1,403,620, R. D. Parker, Sun and rain shield, suit filed April 1, 1922, U. S. D. C., N. D. Calif. (S. Div., 2nd Div.), Doc. 16714, *R. D. Parker, F. I. Francis, and A. H. Stoll* v. *Golden Gate Brass Mfg. Co.*

Des. 57,041, F. D. Gould, Automobile top, suit filed April 13, 1922, S. Div. U. S. D. C., N. D. Calif. (2nd Div.), Doc. Eq. 718, *F. D. Gould Co.* v. *F. A. Burgeson.* A final decree adjudging plaintiff the owner of Patent 57,041 (design) and enjoining infringement by defendant filed May 5, 1922.

T. M. 95,896, H. L. Feasel, Mops; T. M. 112,927, O-So-Ezy Products Co., Furniture polish, suit filed Feb. 24, 1922, U. S. D. C., N. D. Ill., Doc. 2600, *O-So-Ezy Products Co.* v. *"O" So Easy Co.*

T. M. 112,927. (See T. M. 95,896.)

Interference Notice.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE.
Washington, D. C., May 10, 1922.

Christian E. Gudebrod, his heirs, assigns, or legal representatives, take notice:

An interference having been declared by this Office between the application of Smith & Dove Mfg. Co., Andover, Mass., for registration of a trade-mark and trade-mark registered February 19, 1895, No. 26,104, to Christian E. Gudebrod, 644 Broadway, New York, N. Y., and a notice of such declaration sent by registered mail to Christian E. Gudebrod at the said address having been returned by the post office undeliverable, notice is hereby given that unless said Gudebrod, his heirs, assigns, or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS E. ROBERTSON,
Commissioner.

Notice of Opposition.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE.
Washington, D. C., May 10, 1922.

Estasi Perfumery Co., Inc., its heirs, assigns, or legal representatives, take notice:

On December 15, 1921, upon the petition of the A. P. Babcock Company, of 501 Fifth Avenue, New York, N. Y., an opposition proceeding against the registration of a trade-mark to Estasi Perfumery Co., Inc., of 235 Fifth Avenue, New York, N. Y., was instituted by this Office. The attorney of record for Estasi Perfumery Co., Inc., has since withdrawn from the case, and a notice of such opposition sent to Estasi Perfumery Co., Inc., at the said address having been returned by the post office undeliverable, notice is hereby given that unless said Estasi Perfumery Co., Inc., its heirs, assigns, or legal representative, shall enter an appearance therein within thirty days from the first publication of this order, the opposition will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS E. ROBERTSON,
Commissioner.

Adverse Decisions in Interference.

PATENT NO. 1,370,427.

On April 13, 1922, a decision was rendered that Louis E. Giles was not the first inventor of the subject matter covered by claims 76, 77, 81, and 82 of his Patent No. 1,370,427, subject, "Computing machine," and no appeal having been taken within the time allowed such decision has become final.

Changes in Classification.

(ORDER NO. 2,746.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 17, 1922.

The following change in the classification of inventions is hereby directed, to take effect immediately:

In class 105, Railway Rolling Stock (Division XXXIV), establish the following subclass and definition:

462. Poling, roping, and jacking irons.

462. POLING, ROPING AND JACKING IRONS. Railway-rolling-stock abutment fixtures adapted for temporary engagement with side-track push rods, ropes, chains, or lifting jacks.

The patents contained in this subclass have been taken from class 105, Railway Rolling Stock, subclasses 404, Car framing and structure, Freight; 408, Car framing and structure, Freight, Timber pockets, and 411, Car framing and structure, Freight, Braces.

THOMAS E. ROBERTSON,
Commissioner.

ALPHABETICAL LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 2D DAY OF MAY, 1922.

NOTE.—Arranged in accordance with the first significant character or word of the name. (In accordance with city and telephone directory practice.)

Affel, Herman A., Brooklyn, N. Y., assignor to American Telephone & Telegraph Company. Means for and method of testing unbalance. No. 1,414,391; May 2.

Affelder, William L., Crafton, Pa. Portable container. No. 1,414,392; May 2.

Ahl, Ferdinand H., Salem, N. J. Spool holder. No. 1,414,971; May 2.

Aiken, Thomas M., Pittsburgh, Pa. Computing exposure meter. No. 1,414,972; May 2.

Airoblast Corporation. (See Crane, Theodore G., assignor.)

Akley, Charles S. (See Anglada, Joseph A., assignor.)

Albert, Michael, assignor to Milwaukee Corrugating Co., Milwaukee, Wis. Ridge-roll finial. No. 1,414,493; May 2.

Allen, Robert M. (See Miller, C. F., and Allen.)

Allen, William H., Momence, Ill., assignor to R. C. Penfield, New York, N. Y. Brick-backing machine. No. 1,414,998; May 2.

Allsop, Thomas, and W. W. Sibson, assignor to The Philadelphia Drying Machinery Company, Philadelphia, Pa. Drying machine. No. 1,414,973; May 2.

Altwegg, Jean, Lyon, assignor to Societe Chimique des Usines du Rhone, (Anciennement Gilliard P. Monnet et Cartier,) Paris, France. Preparation of the dialkyl-amino-ethyl derivatives of theobromine. No. 1,414,333; May 2.

Alvord, Clayton H. (See Schwarzmann, W. E., and Alvord.)

American Bosch Magneto Corporation. (See Schwarzmann, W. E., and Alvord, assignors.)

American Cotton Oil Company, The. (See Fulson, Charles H., assignor.)

American Laundry Machinery Company, The. (See Prestwich, Sydney, assignor.)

American Linen Company. (See Steiner, George A., assignor.)

American Radium Company. (See Cuntz, Hermann F., assignor.)

American Telephone & Telegraph Company. (See Affel, Herman A., assignor.)

American Telephone and Telegraph Company. (See Best, Fred H., assignor.)

Anderson, Frank C., Cincinnati, Ohio. Switch-rail guard. No. 1,414,767; May 2.

Anderson, Gustaf A., Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y. Car truck. No. 1,414,915; May 2.

Anderson, Gustaf A., Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y. Car truck. No. 1,414,916; May 2.

Anderson, Gustaf A., Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y. Car truck. No. 1,414,917; May 2.

Anderson, Gustaf A., Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y. Car truck. No. 1,414,918; May 2.

Anderson, Gustaf A., Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y. Car truck. No. 1,414,919; May 2.

Anderson, Gustaf A., Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y. Car truck. No. 1,414,920; May 2.

Anderson, Gustaf A., Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y. Car truck. No. 1,414,921; May 2.

Anderson, Gustaf A., Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y. Car truck. No. 1,414,922; May 2.

Anderson, Gustaf A., Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y. Car truck. No. 1,414,923; May 2.

Anderson, Gustaf A., Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y. Car truck. No. 1,414,924; May 2.

Anderson, Gustaf A., Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y. Car truck. No. 1,414,925; May 2.

Anderson, Hans, Oakland, Calif. Single-blade plane. No. 1,414,974; May 2.

Anglada, Joseph A., Jenkintown, Pa., assignor of one-half to C. S. Akley, New York, N. Y. Electric lifting jack. No. 1,414,683; May 2.

Anglada, Joseph A., Jenkintown, Pa., assignor of one-half to C. S. Akley, New York, N. Y. Pneumatic lifting jack. No. 1,414,718; May 2.

Angus, Arthur R., Brighton, England. Electric control of railway trains or vehicles. No. 1,414,999; May 2.

Anton, Mark G. (See Jones, A. H., and Anton.)

Arey, Samuel E., Fellows, Jay J. Hern, Fellows, and M. S. McFadden, Taft, Calif. Sucker-rod hanger. No. 1,414,541; May 2.

Arndt, Franklin E., assignor to The Galion Iron Works & Mfg. Co., Galion, Ohio. Truck turntable. No. 1,414,719; May 2.

Arndt, Maxmillion M., Manitowoc, Wis. Knife for self-binder knotters. No. 1,414,684; May 2.

Arntfield, Frederick S., Toronto, Ontario, Canada. Electric water heater. No. 1,414,494; May 2.

Arolan, Ernest A., Jersey City, N. J. Trousers clip. No. 1,414,926; May 2.

Arthur, Alexander, Youngstown, Ohio. Open-hearth-furnace device. No. 1,414,451; May 2.

Asbury, Dorsey F., Washington, D. C. Breech mechanism. No. 1,414,975; May 2.

Aspinall, Daniel, Vancouver, British Columbia, Canada. Oil salvaging means. No. 1,414,611; May 2.

Auerbach, Zemach, New York, N. Y. Appointment file or rack. No. 1,414,721; May 2.

Auerbach, Zemach, New York, N. Y. Appointment rack or card. No. 1,414,720; May 2.

Auriero, Emanuel, assignor to E. A. Laboratories, Inc., Brooklyn, N. Y. Signal for motor vehicles. No. 1,414,612; May 2.

Auriero, Emanuel assignor to E. A. Laboratories, Inc., Brooklyn, N. Y. Signal for motor vehicles. No. 1,414,613; May 2.

August, Johannes R. C., Halifax, England. Muffle furnace. No. 1,414,614; May 2.

Augustine, Benjamin F., Buffalo, N. Y. Rotary engine. No. 1,414,976; May 2.

Automatic Electric Company. (See Blessing, John G., assignor.)

Automatic Electric Company. (See Martin, Talbot G., assignor.)

Avers, Otis H., Cattaraugus, N. Y. Float gauge. No. 1,414,927; May 2.

Automatic Sprinkler Company of America. (See Brumbaugh, John H., assignor.)

Babb, Charles S., Chicago, Ill., assignor to The Barber Asphalt Paving Company, Philadelphia, Pa. Pipe joint and producing it. No. 1,414,800; May 2.

Backus, George W., Los Angeles, Calif. Dishwasher. No. 1,414,928; May 2.

Badger Manufacturing Corporation. (See Starck, William A., assignor.)

Baker, George H., San Diego, Calif. Window-shade holder. No. 1,414,929; May 2.

Baker-Perkins Manufacturing Corporation. (See Gase, Eugene, assignor.)

Baldwin, Creighton F., St. Louis, Mo. Counting mechanism. No. 1,414,685; May 2.

Bamberger, Lester, Riverside, Calif. Beehive. No. 1,414,393; May 2.

Bangs, Chester T., Chicago, Ill. Poppet valve. No. 1,414,495; May 2.

Barber Asphalt Paving Company, The. (See Babb, Charles S., assignor.)

Basinger, Perry. (See Wilson, Samuel J., assignor.)

Batchelor, Charles L., Portland, Oreg. Automobile fender. No. 1,414,930; May 2.

Batty, George, York, England. Apparatus for casting ingots. No. 1,414,394; May 2.

Bauer, Gustav, Hamburg, and F. Kramer, Blankenese-Dockenhuden, near Hamburg, Germany. Apparatus for preventing escape of oil from submarine tanks. No. 1,414,615; May 2.

Bauer, Walter, assignor to Röhm & Haas Aktiengesellschaft, Darmstadt, Germany. Producing chemical compounds from acetylene and hydrohalogenic acids. No. 1,414,852; May 2.

Beckett, John R., Somerville, Mass. Thread-milling attachment for lathes. No. 1,414,853; May 2.

Beehler, William H., Baltimore, Md. Canopy. No. 1,414,616; May 2.

Beggs, Charles A., Rice Lake, Wis. Hot-air furnace. No. 1,414,395; May 2.

Behneman, Frederick J., San Francisco, and H. S. Rexworthy, Sunnyvale, Calif. Rod mill. No. 1,414,768; May 2.

Beidler, George C., Rochester, N. Y. Method of and apparatus for developing films. No. 1,414,769; May 2.

Bement, Nahum C., Rockford, Ill. Lug for tread surfaces. No. 1,414,334; May 2.

Benson, Robert E., Lodi, Ohio. Tire grip chain. No. 1,414,396; May 2.
Bergner, John C. (See Sherman, C. H., and Morris, assignors.)
Berry, Charles H., Detroit, Mich. Absolute-pressure gauge. No. 1,414,854; May 2.
Bessler, Frank E., Akron, Ohio. Resilient wheel. No. 1,414,542; May 2.
Bessler, Frank E., Akron, Ohio. Tire. No. 1,414,543; May 2.
Bessler, Frank E., Akron, Ohio, assignor of one-half to A. J. Dellenberger. Tire. No. 1,414,544; May 2.
Best, Fred H., Westfield, N. J., assignor to American Telephone and Telegraph Company. Testing apparatus. No. 1,414,397; May 2.
Beyer, Peter G. G., Chailattenlund, Denmark. Cryptographic typewriter. No. 1,414,496; May 2.
Bishop, Ralph E., Indianapolis, Ind. Time meter. No. 1,414,855; May 2.
Blacher, Samuel, assignor to Joseph E. Miller, Incorporated, Providence, R. I. Collar button. No. 1,414,617; May 2.
Blain, Floyd M., Central Point, Oreg. Drawbar hitch for tractors. No. 1,414,770; May 2.
Blauert, Berthold W., Marysville, Calif. Tablette for chairs. No. 1,414,452; May 2.
Blessing, John G., assignor to Automatic Electric Company, Chicago, Ill. Call indicator for automatic telephone systems. No. 1,414,686; May 2.
Blood, Charles, W. H. Winthrop, and C. G. Osteman, assignors to S. A. Woods Machine Company, Boston, Mass. Side head construction for matchers and the like. No. 1,414,618; May 2.
Bogaty, Hermann, Philadelphia, and J. L. Buckley, Pittsburgh, assignors to Proctor & Schwartz, Incorporated, Philadelphia, Pa. Decalcomania and drying machine for pottery. No. 1,414,856; May 2.
Borgner, Conrad W., Lowville, N. Y. Sanitary closure for bottles. (Reissue. No. 15,346; May 2.
Bosch, Robert, Aktiengesellschaft. (See Kratz, Franz, assignor.)
Bossom, Robert P., Brighton, England. Electromagnetic lockout switch. No. 1,414,453; May 2.
Boswell, Harry E., St. Louis, Mo. Shoe heel. No. 1,414,545; May 2.
Bosworth, David C. A., Brooklyn, N. Y. Phonograph attachment. No. 1,414,687; May 2.
Bouvier, Maurice, Lyon, assignor to Societe Chimique des Usines du Rhone Anciennement Gilliard P. Monnet et Cartiers, Paris, France. Obtaining halogen derivatives of indigo and of its homologues. No. 1,414,335; May 2.
Boyden, George A., Jr., and John C., Baltimore, Md. Railway car truck. No. 1,414,497; May 2.
Boyden, John C. (See Boyden, George A., Jr., and J. C.)
Boynton, Vern K., assignor to Perry & Webster, Inc., New York, N. Y. Fume-control device. No. 1,414,722; May 2.
Brahler, Charles J. (See Gill, Herbert D., assignor.)
Brandvein, Jacob M., New York, N. Y. Educational toy. No. 1,414,857; May 2.
Brasher, William H., Toronto, Ontario, Canada. Garment support. No. 1,414,336; May 2.
Breeze, Alfred B., assignor to The Cincinnati Ball Crank Company, Cincinnati, Ohio. Oiling device for reach rods. No. 1,415,000; May 2.
Breyer, Frank G. (See Singmaster, J. A., and Breyer.)
Brinkman, Louis H., Glen Ridge, assignor, by mesne assignments, to General Seamless Tube Company, Bloomfield, N. J. Metal-drawing apparatus. No. 1,414,500; May 2.
Brinton, William C., Jr., assignor, by mesne assignments, to Philbrin Corporation, Kennett Square, Pa. Means for increasing the dielectric strength of condensers. No. 1,414,619; May 2.
Brittain, George M. (See Brown, W. P., and Brittain.)
Brock, Matthias, Boston, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J. Upper-shaping machine. No. 1,414,498; May 2.
Brown & Bigelow. (See Kristofek, Frank J., assignor.)
Brown & Bigelow. (See Welcker, Paul H., assignor.)
Brown Clutch Co., The. (See Hottman, Charles W., Jr., assignor.)
Brown, Lucius A., assignor to The M. M. Johnson Company, Clay Center, Nebr. Incubator. No. 1,414,858; May 2.
Brown, Ralph L. (See Sperr, F. W., Jr., and Brown.)
Brown, William J., New York, N. Y. Device for boring connecting rods. No. 1,414,337; May 2.
Brown, William P., and G. M. Brittain, San Francisco, Calif. Mixer for welding torches. No. 1,414,454; May 2.
Brownlee, Alexander, San Diego, Calif. Reenforced concrete construction for piers, bulkheads, sea walls, and dry docks. No. 1,414,620; May 2.
Bruce, Alfred W., New York, N. Y. Lateral-motion appliance for locomotive driving boxes. No. 1,414,455; May 2.
Bruce, Alfred W., New York, N. Y. Lateral-motion appliance for locomotive driving boxes. No. 1,414,456; May 2.
Bruck, Edward, Spokane, Wash. Combined humidifier and palette attachment. No. 1,414,338; May 2.
Brumbaugh, John H., Wilmette, Ill., assignor to Automatic Sprinkler Company of America, New York, N. Y. Meter alarm valve. No. 1,414,723; May 2.
Brunelle, Wilfrid A., South Hadley Falls, Mass. Renewable fuse. No. 1,414,977; May 2.
Brunson, James I., et al. (See Butler, Israel, assignor.)
Bryant Electric Company, The. (See Thomas, George B., assignor.)
Buck, Wilmer G., Fremont, assignor to Continental Engineering Corporation, Omaha, Nebr. Valve-rotating device. No. 1,414,499; May 2.
Buckley, Joseph L. (See Bogarty, H., and Buckley.)
Buckley's, Benjamin, Son, Inc. (See Tiffany, Homer A., assignor.)
Budd, Edward G., Manufacturing Company. (See Ledwinka, Joseph, assignor.)
Budd Wheel Company. (See Fine, Lewis, assignor.)
Bullôt, Louis F., Sydney, New South Wales, Australia. Apparatus for the preservation of meat and other alimentary substances. No. 1,414,859; May 2.
Bumstead, Ralph W., Brookline, Mass. Computing machine. No. 1,414,978; May 2.
Buornat, William, Utica, N. Y. Figure toy. No. 1,414,501; May 2.
Burch, George B., New York, N. Y., assignor to L. Stevens, Glen Ridge, N. J. Acoustic device. No. 1,414,801; May 2.
Burch, George B., New York, N. Y., assignor to L. Stevens, Glen Ridge, N. J. Phonograph. No. 1,414,802; May 2.
Burch, George B., New York, N. Y., assignor to L. Stevens, Glen Ridge, N. J. Phonograph. No. 1,414,804; May 2.
Burch, George B., New York, N. Y., assignor to L. Stevens, Glen Ridge, N. J. Phonograph reproducer. No. 1,414,803; May 2.
Burnam, Allen, assignor of one-half to C. M. Hocker, San Antonio, Tex. Air pump. No. 1,414,621; May 2.
Burson Knitting Company. (See Carlson, Jahan G., assignor.)
Butler, Israel, Buffalo, N. Y., assignor of one-half to J. I. Brunson and G. A. Saunders. Train control. No. 1,414,860; May 2.
Butts, Alfred. (See Lopez, Raymond, assignor.)
Canadian Car and Foundry Company, Limited. (See Viberg, Ernest R., assignor.)
Cantleberry, Frank W. Sisquoc, Calif. Device for supporting cooking utensils. No. 1,414,771; May 2.
Carborundum Company, The. (See Tone, Frank J., assignor.)
Carlson, Jahan G., assignor to Burson Knitting Company, Rockford, Ill. Automatic stop for knitting machines. No. 1,414,546; May 2.
Carpenter, Herbert L., Brooklyn, N. Y. Container. No. 1,414,861; May 2.
Carter, Douglas G., Picton, Ontario, Canada. Convertible bolt. No. 1,414,979; May 2.
Carter, James W., Minden, La. Agricultural implement. No. 1,414,931; May 2.
Carter, Lionel A., St. Louis, Mo. Power-transmission mechanism. No. 1,414,622; May 2.
Case, Francis M., assignor to The Shelby Supply and Manufacturing Company, Cleveland, Ohio. Coin-controlled vending machine. No. 1,414,502; May 2.
Case, Harry J., Potosi, Wis. Tractor drawbar. No. 1,414,457; May 2.
Cassutt, Casper J. (See Hueber, Henry, assignor.)
Chapman, John A., et al., trustees. (See Sommer, John, assignor.)
Chase, Earl G., Smethport, Pa. Glass-handling apparatus. No. 1,414,547; May 2.
Chemical Fuel Company of America, Inc. (See Stevens, Eldridge W., assignor.)
Chestnut, Donald L., Seattle, Wash. Device for restoring trolley wheels to trolley wires. No. 1,414,548; May 2.
Chisman, Charles, Driggs, Idaho. Automatic gravity ignition cut-out for tractors. No. 1,414,932; May 2.
Christianson, Ray J. (See Webster, L. F., and Christianson.)
Chun Fat, Joseph K., aboard the United States Steamship Beaver. Water-tight ventilator for ships. No. 1,414,560; May 2.
Church, Frank S., assignor of one-half to The Thos. J. Corcoran Lamp Company, Cincinnati, Ohio. Air spring. No. 1,414,623; May 2.
Church, Frederick F. (See Oatman, D. C., and Curvin, assignors.)
Cincinnati Ball Crank Company, The. (See Breeze, Alfred B., assignor.)
Cincinnati Bickford Tool Company, The. (See Klausmeyer, David C., assignor.)
Circle Stamping and Mfg. Co. (See Jones, A. H., and Anton, assignors.)
City Trust Co. Branch of the Marine Trust Co. of Buffalo, trustee. (See Graham, Andrew W., assignor.)
City Trust Co. Branch of the Marine Trust Co., trustee. (See Graham, Andrew W., assignor.)
Cleary, James F., Kansas City, Kans. Box-blank-scoring machine. No. 1,414,549; May 2.
Clements, Cecil, J. W. Swart, and C. E. Nutbrown, Rochester, N. Y. Illuminated license-plate holder and reflector. No. 1,414,772; May 2.
Clements, Everett G., Washington, D. C. Repeating attachment for talking machines. No. 1,414,980; May 2.
Cline, Wesley, Edmonton, Alberta, Canada. Automobile signal. No. 1,414,981; May 2.
Clithero, George I. (See Wasson, William W., assignor.)
Cluley, John P., Chicago, Ill. Micrometer caliper. No. 1,414,550; May 2.
Coates, J. & P., (R. I.) Inc. (See Reilly, Thomas A., assignor.)

Cochrane, Charles H., New York, N. Y. Printing press. No. 1,414,339; May 2.
Cocks, George H., Adrian, Mich. Combined tilting and sliding steering wheel. No. 1,414,458; May 2.
Coffield, James L., Dayton, Ohio. Wringer-supporting mechanism for washing machines. No. 1,414,551; May 2.
Cogswell, Seward E., Central City, Nebr. Automatic sampler. No. 1,414,805; May 2.
Cohen, Morris J. (See Loeffler, G., and Cohen.)
Colavita, Samuel S., Philadelphia, Pa. Door lock. No. 1,414,862; May 2.
Cole, Francis J., Schenectady, N. Y. Vestibule for locomotives and tenders. No. 1,414,459; May 2.
Collins, George A. (See Smith, A. W., and Collins.)
Combination Machine Company. (See Peterson, Jonathan, assignor.)
Combination Machine Company. (See Thom, James C., assignor.)
Constantine, Frederick W., St. Annes-on-Sea, and T. G. Kay, Bolton, England. Drag device for spinning machines. No. 1,414,688; May 2.
Continental Engineering Corporation. (See Buck, Wilmer G., assignor.)
Copeland, Walter M., Cambridge, Mass. Lubricator for valve mechanisms. No. 1,414,934; May 2.
Corbella, Gaetono and G., Longoni, Milan, Italy. Valve-controlling mechanism. No. 1,414,624; May 2.
Corcoran, Thos. J., Lamp Company, The. (See Church, Frank S., assignor.)
Corcoran-Victor Company. (See Macneale, Neil, assignor.)
Corning Glass Works. (See Taylor, William C., assignor.)
Corrall, Herbert, Helensburgh, and B. A. Stevens, Clydebank, Scotland, assignors to The Singer Manufacturing Company. Feeding mechanism for sewing machines. No. 1,414,625; May 2.
Coseo, Frederick C., assignor to The Jeffrey Manufacturing Company, Columbus, Ohio. Coil retainer. No. 1,414,773; May 2.
Cox, Herbert S., London, England, assignor to W. J. McCrudden, Leeds, N. Y. Automobile-windshield fitting. No. 1,414,626; May 2.
Cox, John J., and R. Wendelken, assignors to J. Winter, New York, N. Y. Carburetor. No. 1,414,935; May 2.
Cramer, Otto P., Geneva, Switzerland. Suspension device for globes and reflectors for indirect and concentrated lighting. No. 1,414,627; May 2.
Crane, Theodore G., Chicago, Ill., assignor to Airoblast Corporation. Apparatus for smoking and curing meat. No. 1,414,504; May 2.
Crissey, Aaron H., Lansing, Mich. Farm gate. No. 1,414,863; May 2.
Cromwell, George O., assignor, by mesne assignments, to Ludlow Typograph Company, Chicago, Ill. Electrically heated melting pot for typograph machines. No. 1,414,689; May 2.
Cross, Harry W. (See Sprague, John V., assignor.)
Crowe, Frederick C., assignor to Variety Manufacturing Company, Yakima, Wash. Bending machine. No. 1,414,340; May 2.
Cullman, Otto, Chicago, Ill. Pump jack. No. 1,414,936; May 2.
Cunningham, Allan, Seattle, Wash. Towing machine and towing. No. 1,414,724; May 2.
Cuntz, Hermann F., Hartford, Conn., assignor to American Radium Company, New York, N. Y. Dial and marking for watches and like articles. No. 1,414,628; May 2.
Curvin, Frank G. (See Oatman, D. C., and Curvin.)
Cutler-Hammer Mfg. Co., The. (See Reisbach, Gustav B., assignor.)
Cutler-Hammer Mfg. Co., The. (See Seeger, Edwin W., assignor.)
Dahlheim, Ernest F., and W. S. Hulet, Minot, N. Dak. Sound-deadening device for phonograph reproducers. No. 1,414,937; May 2.
Daniel, Peter F., Christchurch, New Zealand. Valve for internal-combustion and other engines. No. 1,414,341; May 2.
Davidson, William H., Seattle, Wash. Oil burner. No. 1,414,725; May 2.
Davidson, William S., deceased, by Anna L. Neal, administratrix, Philadelphia, Tenn. Railway mail crane. No. 1,414,690; May 2.
Davis, Claude W., Springfield, Ill. Auto towing and steering appliance. No. 1,414,552; May 2.
Davis, Henry N., Independence, Mo. Fuse plug. No. 1,414,864; May 2.
Dayton Manufacturing Company, The. (See Hutchins, R. J., and Kirby, assignors.)
Dean, Charles G., Milwaukee, Wis. Chain belt. No. 1,414,691; May 2.
De Julian, Angelo, West Palm Beach, Fla. Roofing tile. No. 1,414,774; May 2.
Delamater, George R., Steelton, Pa. Mineral sampler. No. 1,414,726; May 2.
Delbare, Hector E., Chicago, Ill. Ribbon-inking attachment for typewriters. No. 1,414,865; May 2.
Delco-Light Company. (See Grant, Ralph H., assignor.)
Dellenberger, A. J. (See Bessler, Frank E., assignor.)
Dempsey, Senterlow, Chicago, Ill. Chocolate-candy cooler. No. 1,414,553; May 2.
Dennis, Howard B., assignor of one-fourth to F. W. Nobs and one-fourth to G. W. Starr, Grass Valley, Calif. Shoveling machine. No. 1,414,398; May 2.
Denton, Lemi B., Pocatello, Idaho. Tractor attachment for automobiles. No. 1,414,938; May 2.
Detroit Pressed Steel Company. (See Putnam, Alden L., assignor.)
Dickerson, Arthur, assignor to Dickerson Engine Company, Salt Lake City, Utah. Rotary valve. No. 1,414,692; May 2.
Dickerson Engine Company. (See Dickerson, Arthur, assignor.)
Dickson, James G., assignor of one-third to F. Wolf, Chicago, Ill. Spark plug. No. 1,414,806; May 2.
Die Sinking and Machine Company, The. (See Hoff, C. A., and Steese, assignors.)
Dixon, Walter L., New Brunswick, N. J., assignor to International Motor Company, New York, N. Y. Air-operated adapter. No. 1,414,460; May 2.
Dodds, Edgar H., Stroud Green, England. Piano-player action. No. 1,414,342; May 2.
Doe, Loring B., San Francisco, Calif. Reach. No. 1,414,343; May 2.
Doerr, Harry E., assignor to Scullin Steel Company, St. Louis, Mo. Pedestal truck side frame. No. 1,414,554; May 2.
Doerscher, Joseph O., West Hoboken, N. J. Hand bag. No. 1,414,866; May 2.
Dolmage, Mihran M., Washington, D. C. Wireless duplex signaling system. No. 1,414,629; May 2.
Donley, Floyd S., and J. Welsh, Pottstown, Pa. Gag-operating attachment for metal punching machines. No. 1,414,555; May 2.
Dörneth, Julius, assignor to Typograph G. m. b. H., Berlin, Germany. Typograph matrix-setting and line-casting machine. No. 1,414,775; May 2.
Dougall, Wilfrid, Montreal, Quebec, Canada. Stamping machine for signal-reading ribbons. No. 1,414,939; May 2.
Dow, Fred T., Bangor, Me. Peat product. No. 1,414,344; May 2.
Dowald, Adolf, Bremen, Germany. Roller for sliding doors and the like. No. 1,414,630; May 2.
Drake, Jonas W., Halifax, England. Apparatus for controlling the draft on furnaces. No. 1,414,631; May 2.
Dresen, Charles J., Spring Green, Wis. Shingler's straightedge. No. 1,414,556; May 2.
Dudley, John W., Brooklyn, N. Y. Bottle closure. No. 1,414,867; May 2.
Dudley, Samuel W., Edgewood, assignor to Westinghouse Air Brake Company, Wilmerding, Pa. Brake-valve device. No. 1,414,807; May 2.
Dura Mechanical Hardware Company. (See Nicholson, Stanley W., assignor.)
Durham, Clayton E., and A. J. Rohr, Terre Haute, Ind. Combination window-shade and curtain-holding device. No. 1,414,982; May 2.
Duvarney, William H., Derry, N. H. Package tie. No. 1,414,868; May 2.
Dwyer, Charles M., Los Angeles, Calif. Vehicle window frame. No. 1,414,399; May 2.
Echter, Paul, New York, N. Y. Tire protector. No. 1,414,632; May 2.
Ede, Allsworth, S. C., Dubuque, Iowa. Double-ended filing cabinet. No. 1,414,505; May 2.
Edmands, Walter S., Boston, Mass. Ice-cream freezer. No. 1,414,727; May 2.
Edmunds & Jones Corporation. (See Godley, Charles E., assignor.)
Eeftink, Herman, Leopold, Mo. Eaves-trough hanger. No. 1,414,345; May 2.
Eger, John B., Chicago, Ill. Automobile signal. No. 1,414,346; May 2.
Egger, Luis G., New York, N. Y. Toy knitting machine. No. 1,414,869; May 2.
Egli, Huldreich, Baltimore, Md. Mechanical movement. No. 1,414,461; May 2.
Ellis, Carleton, Montclair, N. J. Cereal and fruit beverage. No. 1,414,557; May 2.
Elniff, John, Kansas City, Mo. Window construction. No. 1,414,776; May 2.
Else, Walter J., Grand Island, Nebr. Dispensing apparatus. No. 1,414,777; May 2.
Elvidge, Morris H., New York, N. Y. Roofing material. No. 1,414,778; May 2.
Elyria Iron & Steel Co., The. (See Slife, Frank L., assignor.)
Emerick Mill Co. (See Gay, Rubert M., assignor.)
Emerson, Victor L., Philadelphia, Pa. Conversion of hydrocarbon oils. No. 1,414,400; May 2.
Enders, Hugo, Belleville, N. J., assignor to The Lehigh Corporation, New York, N. Y. Frictionally-operated full-stroke mechanism. No. 1,414,728; May 2.
Enders, Hugo, Belleville, N. J., assignor, by mesne assignments, to The Lehigh Corporation, New York, N. Y. Calculating machine. No. 1,414,729; May 2.
Enders, Hugo, Belleville, N. J., assignor to The Lehigh Corporation, New York, N. Y. Digit wheels for calculating machines. No. 1,414,730; May 2.
Englund, Knut E., Brooklyn, assignor to Robert H. Gay, New York, N. Y. Adjustable band. No. 1,414,731; May 2.
Ensten, Louis H., Cleveland, Ohio. Headwear. No. 1,414,558; May 2.

Eppenstein, Otto, assignor to the Firm of Carl Zeiss, Jena, Germany. Telemeter system. No. 1,414,779; May 2.
Ettinger, Grace A., administratrix. (See Ettinger, Joel B.)
Ettinger, Joel B., deceased; by G. A. Ettinger, administratrix, Portland, Oreg. Cutter-head mechanism. No. 1,414,633; May 2.
Evans, Tallesin, Llanelly, Wales. Manufacturing tin plates. No. 1,414,347; May 2.
Ewald, Arno A., Oakfield, Wis. Tire-inflating device. No. 1,414,559; May 2.
Falk, Morris, Leominster, Mass. Pin-tumbler lock. No. 1,414,348; May 2.
Farup, Peder, Slemdal, near Christiania, Norway. Destructive distillation of coal and other material. No. 1,414,401; May 2.
Fassio, Julius, San Francisco, Calif. Dishwashing machine. No. 1,414,634; May 2.
Fels, Hattie, New York, N. Y. Garment. No. 1,414,349; May 2.
Ferngren, Enoch T., Washington, D. C., assignor to Hartford-Fairmont Company. Apparatus for feeding glass to molds. No. 1,414,561; May 2.
Fest, Adolph D., Chicago, Ill. Recovering solid or liquid matter from a solution or semisolution containing same. No. 1,414,562; May 2.
Fine, Lewis, assignor, by mesne assignments, to Budd Wheel Company, Philadelphia, Pa. Drill jig. No. 1,414,635; May 2.
Fink, William B., New York, N. Y. Stationary sign construction. No. 1,414,350; May 2.
Fisher, James, New Orleans, La. Hopper for use in feeding finely-divided fuel. No. 1,414,870; May 2.
Flood, S. D. (See Snyder, Frederick T., assignor.)
Foote, Moses L., and W. M. Kingsbury, Cleveland, Ohio. Boiler and furnace grate. No. 1,414,732; May 2.
Forbes, Elbridge J., Revere, Mass. Repair patch. No. 1,414,733; May 2.
Ford, Francis, Bromptonville, Quebec, Canada. Felt guide for pulp and paper machines and the like. No. 1,414,940; May 2.
Foster, Merriam & Company. (See Millard, R. W., and Michaels, assignors.)
Frederick, Jacob F., Chicago, Ill. Attachment for printing presses. No. 1,414,871; May 2.
Frederick, Jacob F., Chicago, Ill. Attachment for printing presses. No. 1,414,872; May 2.
Frederick, Louis T., Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company. Method of and apparatus for impregnating material. No. 1,414,462; May 2.
Friedman, Loues, Muncie, Ind., and D. Wallace, Tulsa, Okla. Flowing device for wells. No. 1,414,402; May 2.
Fiese, Jesse T., Fresno, Calif. Tire pump. No. 1,414,808; May 2.
Fritz, Lewis, Chicago, Ill. Picture-frame stand. No. 1,414,351; May 2.
Fulson, Charles H., Trenton, Tenn., assignor to The American Cotton Oil Company, New York, N. Y. Press mat for oil presses. No. 1,414,693; May 2.
Fulton Company, The. (See Giesler, Jean V., assignor.)
Fulton, William B., Middletown, Ohio. Steam-pressure-regulating mechanism. No. 1,414,506; May 2.
Gabel, John, Chicago, Ill. Automatic talking machine. No. 1,414,563; May 2.
Gabel, John, Chicago, Ill. Automatic talking machine. No. 1,414,564; May 2.
Galion Iron Works & Mfg. Co. (See Arndt, Franklin E., assignor.)
Gallagher, David R., Troy, N. Y. Adjustable reamer. No. 1,414,565; May 2.
Gamble, Adrian R. (See Suman, J. R., and Gamble.)
Gammeter, John R., Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N .Y. Vulcanizing apparatus. No. 1,414,507; May 2.
Gardner, David S. (See Gardner, Joseph A. and D. S.)
Gardner, Joseph A. and D. S., Memphis, Tenn. Dental flask. No. 1,414,566; May 2.
Garner Gin Company, Inc., The. (See Garner, James C., assignor.)
Garner, James C., assignor, by mesne assignments, to The Garner Gin Company, Inc., Houston, Tex. Fiber-separating device. No. 1,414,508; May 2.
Garner, James C., assignor, by mesne assignments, to The Garner Gin Company, Inc., Houston, Tex. Fiber-separating device. No. 1,414,509; May 2.
Gase, Eugene, assignor to Baker-Perkins Manufacturing Corporation, Saginaw, Mich. Traveling weighing machine. No. 1,414,694; May 2.
Gatchell, George S., Roselle Park, N. J., assignor to The Singer Manufacturing Company. Take-up. No. 1,414,352; May 2.
Gayley, Henry B., et al., executors. (See Gayley, James.)
Gayley, James, deceased, New York, N. Y., H. B. Gayley and W. S. Reed being executors. Recovery of potassium values from fumes. No. 1,414,353; May 2.
Gay, Robert H. (See England, Knut E., assignor.)
Gay, Rubert M., Hanover Township, Morris County, N. J., assignor to Emerick Mill Co., Easton, Pa. Air separator. No. 1,414,636; May 2.
Gazda, Adolph A., Wilkinsburg, Pa. assignor to Westinghouse Electric & Manufacturing Company. System of control. No. 1,414,403; May 2.
Gell, Albert E., Sydney, New South Wales, Australia. Reclining adjustable chair and seat. No. 1,414,637; May 2.
General Electric Company. (See Kirke, Wallace B., assignor.)
General Electric Company. (See Reichold, Ludwig, assignor.)
General Motors Corporation. (See Tresslar, Guy D., assignor.)
General Seamless Tube Company. (See Brinkman, Louis H., assignor.)
Gibbs, Starr M., Mount Rainier, Md. Hand vise. No. 1,414,354; May 2.
Giesler, Jean V., assignor to The Fulton Company, Knoxville, Tenn. Cooling system for internal-combustion engines. No. 1,414,780; May 2.
Giles, Louis E., New York, N. Y., assignor to Underwood Computing Machine Company, New York, N. Y. Computing machine. No. 1,414,355; May 2.
Gill, Charles H., assignor to P. B. Malebranche, Chicago, Ill. Motion-picture tape-winding mechanism. No. 1,414,941; May 2.
Gill, Charles H., assignor to P. B. Malebranche, Chicago, Ill. Shutter for motion-picture apparatus. No. 1,414,942; May 2.
Gill, Herbert D., Kane, assignor of one-half to C. J. Brahler, Erie, Pa. Flue cleaner. No. 1,414,943; May 2.
Giovannoni, Guglielmo. Turin, Italy, assignor to O. Pomilio, New York, N. Y. Switch for controlling ignition and starting circuits in explosion engines. No. 1,414,734; May 2.
Glasel, Charles J., assignor, by mesne assignments, to L. H. Glasel, New York, N. Y. Treating hides and hide-treating apparatus. No. 1,414,404; May 2.
Glasel, Luise H. (See Glasel, Charles J., assignor.)
Glaser, Rudolph, Haledon, N. J. Let-off mechanism for looms. No. 1,414,873; May 2.
Godfrey-Evans, Lewis T., West Norwood, London, England. Internal-combustion engine. No. 1,414,356; May 2.
Godley, Charles E., assignor to Edmunds & Jones Corporation, Detroit, Mich. Headlight-focusing device. No. 1,414,567; May 2.
Goodrich, B. F., Company, The. (See Gammeter, John R., assignor.)
Gossett, Donald C. and E. F., Detroit, Mich. Steering wheel and lock therefor. No. 1,414,405; May 2.
Gossett, Eldon F. (See Gossett, Donald C. and E. F.)
Gould Coupler Company. (See Sauvage, William H., assignor.)
Graf, Alexander. Berlin-Hermsdorf, Germany. Junction box for electric supply mains. No. 1,414,874; May 2.
Graham, Andrew W., assignor to The City Trust Co., branch of the Marine Trust Co., trustee, Buffalo, N. Y. Match packet for advertising purposes. No. 1,414,945; May 2.
Graham, Andrew W., assignor to The City Trust Co., branch of the Marine Trust Co. as trustee, Buffalo, N. Y. Match packet or carton. No. 1,414,946; May 2.
Graham, Andrew W., assignor to City Trust Co., branch of the Marine Trust Co. of Buffalo, trustee, Buffalo, N. Y. Packet or carton. No. 1,414,944; May 2.
Grant, Patrick M., Chicago, Ill. Fluid pump. No. 1,414,463; May 2.
Grant, Ralph H., assignor, by mesne assignments, Delco-Light Company, Dayton, Ohio. Storage battery. No. 1,414,510; May 2.
Gray, Ellsworth, Humble, Tex. Spear. No. 1,414,511; May 2.
Gray, Robert, Glasgow, Scotland, assignor to Lanston Monotype Machine Company, Philadelphia, Pa. Printer's strip-material mold. No. 1,414,464; May 2.
Greenfield Tap and Die Corporation. (See Morgan, Ralph L., assignor.)
Greenslade, Willie, Ottawa, Ontario, Canada. Auto wheel attachment. No. 1,414,735; May 2.
Grosswege, John B., Wilkinsburg, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Electropneumatic brake and signal system. No. 1,414,736; May 2.
Grove, Walter H., Tyrone, Pa. Tread member for antiskidding devices. No. 1,414,638; May 2.
Guard, George, Atlantic City, N. J. Window. No. 1,414,947; May 2.
Gudeman, David, Francesville, Ind. Banker's protecting stand. No. 1,414,568; May 2.
Gulick, Edward J., Elkhart, Ind. Antirattler for steering knuckles. No. 1,414,737; May 2.
Hamilton, Joe M., Mount Holly, N. C. Valve-grinding device. No. 1,414,983; May 2.
Hanaford, Roy F., Brooklyn, N. Y. Golf bag. No. 1,414,875; May 2.
Harper, Guy D., Franklin, Pa. Producing lubricating oils. No. 1,414,695; May 2.
Harris, Leonard B., Philadelphia, Pa., assignor to Harris Patents Company, New York, N. Y. Stop valve. No. 1,414,357; May 2.
Harris Patents Company. (See Harris, Leonard B., assignor.)
Hartford-Fairmont Company. (See Ferngren, Enoch T., assignor.)

Hart, Frederick A., New Britain, Conn., assignor to Remington Accounting Machine Corporation, New York, N. Y. Calculating machine. No. 1,414,639; May 2.
Harthun, William F., Newport, Ky. Recording and exhibiting device. No. 1,414,406; May 2.
Harvey, Albert L., Braddock Township, Allegheny County, Pa., assignor to Westinghouse Electric & Manufacturing Company. Clamping device. No. 1,414,407; May 2.
Harvey, Albert L., Bradford Township, Allegheny County, Pa., assignor to Westinghouse Electric & Manufacturing Company. Motor-control system. No. 1,414,408; May 2.
Harvey, Albert L., Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company. Motor-control system. No. 1,414,409; May 2.
Hase, Takebe, San Francisco, Calif. Rubber collar. No. 1,414,640; May 2.
Haupt, Wenzel, New York, N. Y. Helicopter. No. 1,414,410; May 2.
Hawkins, Kennith, assignor to G. B. Lewis Company, Watertown, Wis. 4-way bee escape. No. 1,414,696; May 2.
Hazen, James A., Long Beach, Calif. Collapsible metal crate. No. 1,414,948; May 2.
Headrick, Lester. (See Roberts, David, assignor.)
Heames, Richard M., assignor to The Vixson Company, Detroit, Mich. Automatic blank-dressing machine. No. 1,414,642; May 2.
Heames, Richard M., assignor to The Vixson Company, Detroit, Mich. Thread-rolling die. No. 1,414,641; May 2.
Heath, Willard H., Spokane, Wash. Valve grinder. No. 1,414,358; May 2.
Hellem, Nels, Portland, Oreg. Wrench. No. 1,414,949; May 2.
Helmond, William F., Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y. Typewriting machines. No. 1,414,738; May 2.
Herd, Adolph, Youngstown, Ohio. Garment marker. No. 1,414,643; May 2.
Hern, Jay J. (See Arey, S. E., Hern, and McFadden.)
Herreshoff, Alexander G., and A. H. Leipert, New York, N. Y. Universal joint. No. 1,414,411; May 2.
Heylandt, Paul, Sudende, near Berlin, Germany. Filling high-pressure vessels with liquefiable gases. No. 1,414,359; May 2.
Hicks, John, Somerville, N. J. Combustion chamber. No. 1,414,360; May 2.
Hill, Harry L., Bellamy, Ontario, Canada. Combination necktie holder and collar button. No. 1,414,412; May 2.
Hills, Henry A., Grand Rapids, Mich. Distillation process. No. 1,414,465; May 2.
Hocker, C. M. (See Burnam, Allen, assignor.)
Hoe, R., and Co. (See Roesen, O., and Tornberg, assignors.)
Hodgkins, Charles H., Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company. Electrical switch. No. 1,414,413; May 2.
Hoff, Chester A., and J. C. Steese, assignors to The Die Sinking and Machine Company, Akron, Ohio. Vapor lamp. No. 1,414,466; May 2.
Hoffman, Fred D., assignor to P. E. Miller, Fort Worth, Tex. Power jack. No. 1,414,876; May 2.
Hoge, William L., Louisville, Ky. Toy vehicle. No. 1,414,950; May 2.
Hogshead, Edgar S., Mount Solon, and R. C. Hogshead, Gordonsville, Va. Tire-chain fastener. No. 1,414,467; May 2.
Hogshead, Rodney C. (See Hogshead, Edgar S. and R. C.)
Hollister, Clarence P., New York, N. Y. Lubrication of internal-combustion engines. No. 1,414,644; May 2.
Holte, Nordahl E. (See Prabst, A. C., and Holte.)
Hood, Harry A., Quincy, Mass. Turbine. No. 1,414,984; May 2.
Hood, John D., Philadelphia, Pa. Engine-valve gear. No. 1,414,739; May 2.
Hooker Electrochemical Company. (See Townsend, Clinton P., assignor.)
Hoover, Edgar B., Pasco, Wash. Rotary pump. No. 1,414,512; May 2.
Hopkins, Edward L., assignor to Jeffrey Manufacturing Company, The, Columbus, Ohio. Mining apparatus. No. 1,414,877; May 2.
Horras, Peter A., Chicago, Ill. Belt or other buckle. No. 1,414,697; May 2.
Hosking, Richard T., Saginaw, Mich. Rewind device for multiple-process printing presses. No. 1,414,809; May 2.
Hosmer, Chester C., and C. H. Wines, Huntington Beach, Calif. Rotary drill-pipe slip. No. 1,414,951; May 2.
Hottmann, Charles W., Jr., assignor to The Brown Clutch Co., Sandusky, Ohio. Washing machine. No. 1,414,468; May 2.
House, Herbert E., Pasadena, assignor to C. S. and W. T. Potter, Los Angeles, Calif. Kaleidoscope. No. 1,414,469; May 2.
Howe, David R., Ashland, Me. Peavy. No. 1,414,878; May 2.
Hubbard, Burtt J., Kokomo, Ind. Curtain-window construction. No. 1,414,470; May 2.
Hubble, Alfred G., assignor to The National Safety Churn Company, Limited, London, England. Closure for receptacles. No. 1,414,569; May 2.
Hudson, William W., Toronto, Ontario, Canada. Bucket elevator. No. 1,414,810; May 2.
Hueber, Henry, assignor of one-half to C. J. Cassutt, Seattle, Wash. Attachment for motor vehicles. No. 1,414,513; May 2.
Huff, Sidney, New York, N. Y. Rotary brush. No. 1,414,781; May 2.
Hughes, Robert D., Lynchburg, Va. Tool for handling demountable rims. No. 1,414,879; May 2.
Hughes, Thomas M., Carlisle, Miss. Cultivator. No. 1,414,880; May 2.
Hulet, Walter S. (See Dahlheim, E. F., and Hulet.)
Humber, Gustave, Denver, Colo. Lantern. No. 1,414,414; May 2.
Humber, Gustave, Denver, Colo. Electric lantern. No. 1,414,415; May 2.
Huntley, Ernest R., assignor to Industrial Research Corporation, Toledo, Ohio. Gasoline-feed system. No. 1,414,952; May 2.
Huntress, Harry W., Turlock, Calif. Bedspring. No. 1,414,471; May 2.
Hurley, Edward T., Cincinnati, Ohio. Crayon. No. 1,414,570; May 2.
Hussey, Patrick J., New York, N. Y. Valve. No. 1,414,416; May 2.
Hutchins, Frank W., Miami, Ariz. Measuring device. No. 1,414,571; May 2.
Hutchins, Rufus J., and J. Kirby, jr., assignors to The Dayton Manufacturing Company, Dayton, Ohio. Water heater. No. 1,414,361; May 2.
Hygienic Bottle Cap Company, The. (See Parker, Charles C., assignor.)
Indahl, Mauritz C., assignor to Lanston Monotype Machine Company, Philadelphia, Pa. Delivering mechanism for type-casting machines. No. 1,414,472; May 2.
Industrial Research Corporation. (See Huntley, Ernest R., assignor.)
Ingersoll Milling Machine Company, The. (See Johnson, John R., assignor.)
Ingersoll-Rand Company. (See Parsons, Frederick W., assignor.)
Ingram, John B., Los Angeles, Calif. Fruit snow flaker. No. 1,414,953; May 2.
Ingvoldstad, Hildar E., assignor to Wm. Warnock Co., Sioux City, Iowa. Stock waterer. No. 1,414,811; May 2.
Inman Manufacturing Company, Inc. (See Joslin, Frank M., assignor.)
International Motor Company. (See Dixon, Walter L., assignor.)
International Precipitation Company. (See Welch, Harry V., assignor.)
Iroff, Phillip, Brooklyn, N. Y. Toothbrush. No. 1,414,645; May 2.
Iroff, Phillip, Brooklyn, N. Y. Safety razor. No. 1,414,646; May 2.
Ivory, James W., Philadelphia, Pa. Tooth cervical clamp. No. 1,414,647; May 2.
Jaeger, Gebhard, Columbus, Ohio. Concrete-mixing machine. No. 1,414,648; May 2.
Jager, George W. (See Sears, W. T., and Jager.)
Jaques, Fernando O., Jr., Providence, assignor of one-half to H. C. Peckham, Cranston, R. I. Means for making castellated nuts. No. 1,414,417; May 2.
Jaray, Paul, assignor to Luftschiffbau Zeppelin Gesellschaft mit beschrankter Haftung, Friedrichshafen, Germany. Cooling device for aerial vehicles. No. 1,414,418; May 2.
Jeffrey Manufacturing Company, The. (See Coseo, Frederick C., assignor.)
Jeffrey Manufacturing Company, The. (See Hopkins, Edward L., assignor.)
Jeffrey Manufacturing Company, The. (See Levin, Nils D., assignor.)
Jensen-Bellrlundd, Hans P., Lisbon, Portugal. Dump wagon. No. 1,414,954; May 2.
Johnson, Frederick H. (See Kemp R., and Johnson.)
Johnson, Henry G., assignor to Summit Thread Company, East Hampton, Conn. Universal winder head. No. 1,414,514; May 2.
Johnson, John R., assignor to The Ingersoll Milling Machine Company, Rockford, Ill. Drum-type continuous-milling machine. No. 1,414,812; May 2.
Johnson, M. M. Company, The. (See Brown, Lucius A., assignor.)
Johnstone, Frederick W., Murrumburrah, New South Wales, Australia. Spring for motor road vehicles. No. 1,414,813; May 2.
Johnstone, Jackson F., Boston, and D. A. Johnston, Melrose, Mass. Child's vehicle. No. 1,414,515; May 2.
Johnston, David A. (See Johnstone, Jackson F., and D. A. Johnston.)
Jones, Allan H., Belleville, and M. G. Anton, Newark, N. J., assignors to Circle Stamping and Mfg. Co., Belleville, N. J. Roller bearing. No. 1,414,473; May 2.
Jones, Arthur, Belleville, Ill. Electric furnace. No. 1,414,362; May 2.
Jones, Jake, St. Louis, Mo. Railway appliance. No. 1,414,814; May 2.
Jones, William H., Sanger, Calif. Fruit-drying tray. No. 1,414,649; May 2.
Joslin, Frank M., assignor to Inman Manufacturing Company, Inc., Amsterdam, N. Y. Plunger lifter. No. 1,414,650; May 2.
Junkin, Joel S., Kennedy, Ala. Sawmill attachment. No. 1,414,740; May 2.

Kadel, Byers W., Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y. Car truck. No. 1,414,955; May 2.

Kadel, Byers W., Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y. Car truck. No. 1,414,956; May 2.

Kadel, Byers W., Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y. Car truck. No. 1,414,957; May 2.

Kadel, Byers W., Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y. Car truck. No. 1,414,958; May 2.

Kadel, Byers W., Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y. Car truck. No. 1,414,959; May 2.

Kadel, Byers W., Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y. Car truck. No. 1,414,960; May 2.

Kadel, Byers W., Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y. Car truck. No. 1,414,961; May 2.

Kadel, Byers W., Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y. Car truck. No. 1,414,962; May 2.

Kadel, Byers W., Baltimore, Md., assignor to The T. H. Symington Company, New York, N. Y. Car truck. No. 1,414,963; May 2.

Kamerer, William J. (See Stucker, J. M., and Kamerer.)

Karasiewicz, Walter, Detroit, Mich. Sash lifter. No. 1,414,698; May 2.

Kaufman, Irving S., Chicago, Ill. Cuff link. No. 1,414,572; May 2.

Kaumagraph Company. (See Kislevitz, Samuel, assignor.)

Kay, Thomas G. (See Constantine, F. W., and Kay.)

Keeran, Charles R., Chicago, Ill. Pressure indicator. No. 1,414,474; May 2.

Kelley, Elizabeth P., Philadelphia, Pa. Medicinal compound for external use as a plaster or ointment. No. 1,414,815; May 2.

Kelly, Edwin W., Oak Park, assignor, by mesne assignments, to Victor X-Ray Corporation, Chicago, Ill. Electrical vacuum discharge device. No. 1,414,741; May 2.

Kelly, Gerald F., New York, N. Y. Paper display box. No. 1,414,363; May 2.

Kemp, Robert, and F. H. Johnson, Buffalo, N. Y., assignors to Westinghouse Electric & Manufacturing Company. Structural element. No. 1,414,419; May 2.

Kempton, Willard H., Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company. Composite laminated body. No. 1,414,420; May 2.

Kendall, William G., Newark, N. J., assignor to H. Rigaud, New York, N. Y. Press. No. 1,414,881; May 2.

Killion, John F., Attleboro, Mass., assignor to Whiting Chain Company. Belt clasp. No. 1,414,816; May 2.

Kingsbury, William M. (See Foot, M. L., and Kingsbury.)

Kinsley, William S., Reading, assignor to The Russell Company, Boston, Mass. Transfer mechanism. No. 1,414,699; May 2.

Kirby, John, Jr. (See Hutchins, R. J., and Kirby.)

Kirchner, Henry W., St Louis, Mo. System of transportation. No. 1,414,516; May 2.

Kirk, Clyde W. (See Malinowsky, L. B., and Kirk.)

Kirke, Wallace B., Schenectady, N. Y., assignor to General Electric Company. Regulating system for alternating-current circuits. No. 1,414,652; May 2.

Kirkpatrick, Otey R., assignor of one-third to C. A. Puckett and one-third to C. M. Mitchell, Fort Worth, Tex. Wrench. No. 1,414,817; May 2.

Kislevitz, Samuel, assignor to Kaumagraph Company, New York, N. Y. Machine for inspecting and cutting fabrics. No 1,414,818; May 2.

Kissel Motor Car Company. (See Palmer, Herman D., assignor.)

Kittredge, R. E., et al. (See Parker, Charles W., assignor.)

Kitts, Willard A., Jr., Paterson, N. J. Blow-off valve. No. 1,414,651; May 2.

Klausmeyer, David C., assignor to The Cincinnati Bickford Tool Company, Cincinnati, Ohio. Gear-like indicator of stripped threads. No. 7,415,005; May 2.

Kreefeld, Georges, Brussels, Belgium. Searchlight. No. 1,414,985; May 2.

Knight, Stephen. (See Rasmussen, Peter, assignor.)

Kochmit, Edward J., Cleveland, Ohio. Artificial tooth. No. 1,414,475; May 2.

Kokesh, Charles, Cainesville, Mo. Vehicle brake. No. 1,414,882; May 2.

Koppers Company, The. (See Sperr, F. W., Jr., and Brown, assignors.)

Köszegi, Charles, Budapest, Hungary. Cultivator for treating the soil. No. 1,414,364; May 2.

Kraft, Henry P., Ridgewood, N. J. Valve-repair tool. No. 1,414,819; May 2.

Kramer, Fritz. (See Bauer, G., and Kramer.)

Kratz, Franz, assignor to Robert Bosch Aktiengesellschaft, Stuttgart, Germany. Electric-motor-starting device for internal-combustion engines. No. 1,414,653; May 2.

Krehlik, Albert, Cleveland, Ohio. Air pump. No. 1,414,573; May 2.

Kries, Lawrence F., Baltimore, Md., assignor to Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa. Double-throw switch. No. 1,414,421; May 2.

Kristofek, Frank J., assignor to Brown & Bigelow, St. Paul, Minn. Thimble-decorating device. No. 1,414,820; May 2.

Kuehl, Ernest C., assignor of one-half to H. C. Lust, Chicago, Ill. Needle holder for sound-reproducing machines. No. 1,414,517; May 2.

Kuehner, Charles P., North Providence, R. I. Bead chain. No. 1,414,821; May 2.

Laboratories, E. A., Inc. (See Aufiero, Emanuel, assignor.)

Lahey, Frank T. (See Roberts, William, assignor.)

Laing, Robert, Middleton, England. Machine for pressing lines or designs into rollers. No. 1,414,574; May 2.

Lakin, Harry W., Boston, Mass. Garment supporter. No. 1,414,476; May 2.

Lammers, Edwin S., Jr., Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company. Motor-control system. No. 1,414,422; May 2.

Lang, Lincoln A., assignor to The Northern Trust Company, trustee, Chicago, Ill. Controlling mechanism. No. 1,414,654; May 2.

Langer, Carl, Woolhampton, England. Electrolytic separation of metals. No. 1,414,423; May 2.

Lanston Monotype Machine Company. (See Gray, Robert, assignor.)

Lanston Monotype Machine Company. (See Indahl, Mauritz C., assignor.)

Larson, Arthur E., Chicago, Ill. Toy adding machine. No. 1,414,655; May 2.

Lawson, Clarence J., Yonkers, N. Y. Conveyer chain. No. 1,414,424; May 2.

Lawton, Nathan L., Dover, N. J. Stop motion for spinning machines. No. 1,414,883; May 2.

Ledwinka, Joseph, assignor to Edward G. Budd Manufacturing Company, Philadelphia, Pa. Electrically welding galvanized metal sheets or parts. No. 1,414,822; May 2.

Lehigh Corporation, The. (See Enders, Hugo, assignor.)

Leipert, August H. (See Herreshoff, A. G., and Leipert.)

Leitner, Henry, London, England. Screw propeller. No. 1,414,742; May 2.

Levin, Nils D., assignor to The Jeffrey Manufacturing Company, Columbus, Ohio. Axle-journal box. No. 1,414,782; May 2.

Lewis, G. B., Company. (See Hawkins, Kennith, assignor.)

Lewis, John H., Cicero, Ill. Wall construction. No. 1,414,425; May 2.

Liebrich, Robert. (See Skinner, Burr R., assignor.)

Lieniz, Edward J., deceased, San Francisco, Calif.; L. Lieniz, administratrix. Sliding side light for motor vehicles. No. 1,414,783; May 2.

Lieniz, Lillian, administratrix. (See Lieniz, Edward J.)

Lindsay, Frank, Detroit, Mich. Railway guard rail. No. 1,414,477; May 2.

Link, Charles W. (See Vanderveer, David E., assignor.)

Lippman, Nathan, Brooklyn, N. Y. Undergarment. No. 1,414,986; May 2.

Livingston, Samuel B., Wilson, Pa. Clutch lock. No. 1,414,884; May 2.

Loeffler, George, New York, and M. J. Cohen, Brooklyn, N. Y. Hydrocarbon engine. No. 1,414,987; May 2.

Longoni, Gualtiero (See Corbella, G., and Longoni.)

Loose, Henry W., Brooklyn, N. Y. Attachment for pipe cutters. No. 1,414,885; May 2.

Lopez, Raymond, assignor of one-half to A. Butts, San Diego, Calif. Candy-pulling machine. No. 1,414,743; May 2.

Losch, Cyrenius, Schuylkill Haven, Pa. Dump hoist. No. 1,414,426; May 2.

Lossing Manufacturing Company. (See Lossing, Richard, assignor.)

Lossing, Richard, South Pasadena, assignor to Lossing Manufacturing Company, Los Angeles, Calif. Gasoline meter. No. 1,414,964; May 2.

Lucyshyn, Antoni, Toronto, Ontario, Canada. Railway station indicator. No. 1,414,700; May 2.

Ludlow Typograph Company. (See Cromwell, George O., assignor.)

Ludlow Typograph Company. (See Pottle, Harry G., assignor.)

Luftschiffbau Zeppelin Gesellschaft mit beschrankter Haftung. (See Jaray, Paul, assignor.)

Lust, Herbert C. (See Kuehl, Ernest C., assignor.)

Lynch, Tillman D., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Testing device. No. 1,414,427; May 2.

Lyons, Edw. M., et al. (See Parker, Charles W., assignor.)

Lyons, Mable E., et al. (See Parker, Charles W., assignor.)

McCart, Thomas, Spokane, Wash. Bag holder. No. 1,414,575; May 2.

McCaskey, John T., Boone, Iowa. Turnbuckle wrench. No. 1,414,989; May 2.

McCay, Newton J., Coalinga, Calif. Heavy-duty belt adjuster. No. 1,414,428; May 2.

McClelland, John, Philadelphia, Pa. Combined spark timer and oil pump. No. 1,414,823; May 2.

McCrudden, William J. (See Cox, Herbert S., assignor.)

McEwen, Willard M., Chicago, Ill. Tire-casing filler. No. 1,414,478; May 2.

McFadden, Merle S. (See Arey, S. E., Hern, and McFadden.)

McFarland, Charlie M., Wichita Falls, Tex. Automatic pump. No. 1,414,990; May 2.
McKeage, Guillaume R., Montrose, Pa. Automobile lock. No. 1,414,991; May 2.
McKean, William L., Martins Ferry, Ohio, assignor to Steel Works Appliance Company, Pittsburgh, Pa. Tin-plate-cleaning machine. No. 1,414,365; May 2.
McKenna, Michael H., Cleveland, Ohio. Power machine for bending metal bars or rods. No. 1,414,744; May 2.
McVicker, Emery M., Milwaukee, Wis. Rail fastener. No. 1,414,784; May 2.
Macdonald, Harry P., Montclair, N. J., assignor to Snead & Company. Method of and apparatus for heat treating metallic articles. No. 1,414,366; May 2.
Macneale, Neil, assignor to Corcoran-Victor Company, Cincinnati, Ohio. Lamp. No. 1,414,518; May 2.
Madörin, Albert, Quarten, Switzerland. Fishing boat. No. 1,414,429; May 2.
Malebranche, Paul B. (See Gill, Charles H., assignor.)
Malinowsky, Louis B., and C. W. Kirk, Patterson, Calif. Chimney thimble. No. 1,414,367; May 2.
Mammen, Lawrence W., Chicago, Ill. Driving mechanism for washing machines. No. 1,414,430; May 2.
Marcelino y Diaz, Joaquin, Habana, Cuba. Mounting for portraits and photographs. No. 1,414,656; May 2.
Mardis, Paul L., Swissvale, Pa., assignor to Westinghouse Electric & Manufacturing Company. Control apparatus. No. 1,414,431; May 2.
Marlowe, Clinton D., sr., Johnstown, Pa. Rocking toy vehicle. No. 1,414,368; May 2.
Marshall, Chilton M., Oakdale, La., assignor of one-half to R. E. Powell, Elton, La. Sucker-rod elevator. No. 1,414,519; May 2.
Martin, Talbot G., assignor to Automatic Electric Company, Chicago, Ill. Special service trunk for automatic telephone systems. No. 1,415,001; May 2.
Martin, Trevillie O., Jackson, Tenn. Lathe-turning tool. No. 1,414,520; May 2.
Matsunaga, Harry, San Francisco, Calif. Toothbrush. No. 1,414,886; May 2.
Mayer, Waldemar F., Philadelphia, Pa., assignor to Taylor-Wharton Iron and Steel Company, High Bridge, N. J. Compound valve pump or motor. No. 1,414,965; May 2.
Maynard, James B., Superior, Wis. Storm sash and screen fastener. No. 1,414,966; May 2.
Mays, James L., Dallas, Tex. Power-transmission mechanism. No. 1,414,479; May 2.
Mazur, Joe, Monessen, Pa. Figure wheeled toy. No. 1,414,887; May 2.
Meier, Eric J., Dorchester, Mass. Anchor. No. 1,414,992; May 2.
Merithew, Jerry J., Akron, Ohio. Vacuum cleaner. No. 1,414,967; May 2.
Mertz, Boyd F. and G. P., Northumberland, Pa. Grater. No. 1,414,657; May 2.
Mertz, George P. (See Mertz, Boyd F. and G. P.)
Meutsch, Charles C., Chicago, Ill. Cushion-making machine. No. 1,414,825; May 2.
Meutsch, Charles C., Chicago, Ill. Upholstered curved arm, back, seat, etc. No. 1,414,824; May 2.
Meyer, William, Chicago, Ill. X-ray stand. No. 1,414,658; May 2.
Meyerson, Max, New York, N. Y. Tool box. No. 1,414,826; May 2.
Michaels, Maurice A. (See Millard, R. W., and Michaels.)
Michalski, Joseph J., Buffalo, N. Y. Theft detector for automobiles. No. 1,414,521; May 2.
Midgley, Ephraim A., Salt Lake City, Utah. Reamer and burrer. No. 1,414,480; May 2.
Mikesell, Ray M., Percy, Iowa. Metal tip for shoe laces. No. 1,414,701; May 2.
Milburn, Alvin, Keensburg, Ill. Air filter for internal-combustion engines. No. 1,414,993; May 2.
Millard, Reginald W., Meriden, Conn., and M. A. Michaels, Cambridge, Mass., assignors to Foster, Merriam & Company. Electrolyte indicator for storage batteries. No. 1,414,745; May 2.
Miller, Charles F., Omaha, Nebr. Butter-cutting machine. No. 1,414,994; May 2.
Miller, Charles F., Morton, and R. M. Allen, Swissvale, Pa., assignors to Westinghouse Electric & Manufacturing Co. Fuel-feeding mechanism. No. 1,414,746; May 2.
Miller, Edward A., Downs, Kans. Match-scratching attachment for lamps. No. 1,414,995; May 2.
Miller, Joseph E., Incorporated. (See Blacher, Samuel, assignor.)
Miller, P. E. (See Hoffman, Fred. D., assignor.)
Milwaukee Corrugating Co. (See Albert, Michael, assignor.)
Mintz, Harry, Boston, Mass. Couch hammock. No. 1,414,432; May 2.
Mintz, Harry, Boston, Mass. Hammock. No. 1,414,433; May 2.
Mitchell, C. M., et al. (See Kirkpatrick, Otey R., assignor.)
Mitchell, Samuel, Detroit, Mich. Station indicator. No. 1,414,369; May 2.
Mitchell, William H., Richmond, Ind. Doll head. No. 1,414,968; May 2.
Mock, Hugo, New York, N. Y. Food product. No. 1,414,576; May 2.
Moe, Gerhard, Eau Claire, Wis. Taking photographic measurements. No. 1,414,481; May 2.
Mooers, Benjamin M., San Francisco, and L. E. Warner, Berkeley, assignors to Motor Protector Manufacturing Company, San Francisco, Calif. Circuit breaker. No. 1,414,659; May 2.
Moore, Aaron T., Oatman, Ariz. Tire-boot clamp. No. 1,414,969; May 2.
Morgan, Ralph L., Worcester, assignor, by mesne assignments, to Greenfield Tap and Die Corporation, Greenfield, Mass. Magnetic chuck and making the same. No. 1,414,522; May 2.
Morgan, William H., Alliance, Ohio. Cast metal wheel. No. 1,414,661; May 2.
Morgan, William H., Alliance, Ohio. Cast metal wheel. No. 1,414,662; May 2.
Morgan, William H., Alliance, Ohio. Cast metal wheel. No. 1,414,663; May 2.
Morgan, William H., Alliance, Ohio. Method and apparatus for shaping hot-metal blanks. No. 1,414,660; May 2.
Morris, Charles E., assignor to C. W. Parker, Leavenworth, Kans. Rocking toy. No. 1,414,785; May 2.
Morris, Frank E. (See Sherman, C. H., and Morris.)
Motor Protector Manufacturing Company. (See Mooers, B. M., and Warner, assignors.)
Mueller, Frederick, Irvington, N. J. Piston or compression ring. No. 1,414,747; May 2.
Mulvihill, Daniel C., Hannibal, Mo. Molding and flask part therefor. No. 1,414,702; May 2.
Murphy, Lloyd T., St. Marys, Ohio. Continuous extractor. No. 1,414,703; May 2.
Myers, Henry E., Bowman, N. D. Eye tester. No. 1,414,888; May 2.
Nagy, Berthold and S., Brooklyn, N. Y. Attachment for feeding cupped articles. No. 1,414,786; May 2.
Nagy, Stephen. (See Nagy, Berthold and S.)
National Safety Churn Company, The. (See Hubble, Alfred G., assignor.)
Navarre, Placide O., Paris, France. Machine for removing the stalks from fruits. No. 1,414,889; May 2.
Neal, Anna L., administratrix. (See Davidson, William S.)
Nelson, Alexander W., Newark, N. J., assignor to Nelson Tool & Machine Company, Incorporated. Adjustable angle plate. No. 1,414,970; May 2.
Nelson, Bert O., Scandinavia, Wis. Boom adjuster. No. 1,414,890; May 2.
Nelson, John, Glasgow, Scotland. Manufacture of carbon for pigmental and other purposes. No. 1,414,482; May 2.
Nelson Tool & Machine Company. (See Nelson, Alexander W., assignor.)
Nemeth, Stephen P., Dayton, Ohio. Machine for navigating the air. No. 1,414,577; May 2.
Neuschwanger, Elmer G., Kansas City, Kans. Gas-heat retainer and flame cleanser. No. 1,414,664; May 2.
New Jersey Zinc Company, The. (See Singmaster, J. A., and Breyer, assignors.)
Newkirk, Edgar H., Tulsa, Okla. Underreamer. No. 1,414,704; May 2.
Nicholson, Stanley W., assignor to Dura Mechanical Hardware Company, Toledo, Ohio. Vehicle window-control mechanism. No. 1,414,523; May 2.
Nicolson, Alexander M., assignor to Western Electric Company, Incorporated, New York, N. Y. Making piezo-electrical crystals. No. 1,414,370; May 2.
Niles-Bement-Pond Company. (See Sears, W. T., and Jager, assignors.)
Niles-Bement-Pond Company. (See Sears, Willard T., assignor.)
Nilson, A. H., Machine Co., The. (See Nilson, Axel H., assignor.)
Nilson, Axel H., assignor to The A. H. Nilson Machine Co., Bridgeport, Conn. Wire straightener. No. 1,414,371; May 2.
Nobs, Frederick W., et al. (See Dennis, Howard B., assignor.)
Northern Trust Company, The, trustee. (See Lang, Lincoln A., assignor.)
Novitzky, Emil, Detroit, Mich. Centering gauge for lathes. No. 1,414,483; May 2.
Nutbrown, Charles E. (See Clements, C., Swart, and Nutbrown.)
Oakes, Otto L., Boise, Idaho. Tractor-controlling means and the like. No. 1,414,988; May 2.
Oatman, David C., Buffalo, and F. G. Curvin, Medina, assignors to Frederick H. Church, Rochester, N. Y. Windshield cleaner. No. 1,414,578; May 2.
Obach, Kazimnierz A., assignor of one-half to J. Weliszek, Winnipeg, Manitoba, Canada. Motor sleigh. No. 1,414,891; May 2.
Olcott, Walter, South Manchester, Conn. Green-corn implement. No. 1,414,372; May 2.
Olsen, Alfred N., assignor to Victor Pin-Setter Company, Rock Rapids, Iowa. Pin-setting mechanism. No. 1,414,787; May 2.
Olsen, Lawrence E., Troy, assignor to Pratt & Whitney Company, New York, N. Y. Adjustable limit gauge. No. 1,414,434; May 2.
Olsen, Lawrence E., Troy, assignor to Pratt & Whitney Company, New York, N. Y. Adjustable limit gauge. No. 1,414,484; May 2.
Osteman, Carl G. (See Blood, C. W. H., and Osteman.)
Ostrander, John K., New York, N. Y. Pendulum high-voltage air-break switch. No. 1,414,892; May 2.

Palmer, Herman D., Hartford, Wis., assignor to Kissel Motor Car Company. Spring hanger. No. 1,414,748; May 2.
Parker,, Charles W., Kansas City, Mo., assignor to R. E. Kittredge, E. M. Lyons, and M. E. Lyons, Chicago, Ill. Door check and closer. No. 1,414,996; May 2.
Parker, Charles C., assignor to The Hygienic Bottle Cap Company, Baltimore, Md. Bottle cap. No. 1,414,705; May 2.
Parker, Charles W. (See Morris, Charles E., assignor.)
Parsons, Frederick W., Elmira, N. Y., assignor to Ingersoll-Rand Company, Jersey City, N. J. Valve-seat retainer. No. 1,414,665; May 2.
Parsons, William J., London, England. Appliance for playing race games No. 1,414,788; May 2.
Pavitt, William H., Jr., Brooklyn, N. Y., assignor of one-third to L. Wilputte and two-thirds to A. A. Wilputte, New Rochelle, N. Y. Collecting main for by-product coke ovens. No. 1,414,524; May 2.
Pease, Charles F., assignor to The C. F. Pease Company, Chicago, Ill. Tensioning device. No. 1,414,579; May 2.
Pease Company, C. F., The. (See Pease, Charles F., assignor.)
Peckham, Harold C. (See Jaques, Fernando O., Jr., assignor.)
Peelle Company, The. (See Wexler, Benjamin, assignor.)
Pencil Products Corporation. (See Salz, James, assignor.)
Penfield, Raymond C. (See Allen, William H., assignor.)
Penn, Charles F., assignor of one-half to R. O. Scambler, Spokane, Wash. Vehicle chassis. No. 1,414,749; May 2.
Perrier, Charles M., Brockton, Mass. Ladder attachment. No. 1,414,893; May 2.
Perry & Webster, Inc. (See Boynton, Vern K., assignor.)
Peterson, Jonathan, Brooklyn, assignor to Combination Machine Company, New York, N. Y. Packaging. No. 1,414,706; May 2.
Peterson, Peter, Minneapolis, Minn. Toy cannon. No. 1,414,827; May 2.
Peterson, Walter L., Lyons, Nebr. Seeder attachment for cultivators. No. 1,414,580; May 2.
Philadelphia Drying Machinery Company, The. (See Allsop, T., and Sibson, assignors.)
Philbrin Corporation. (See Brinton, William C., Jr., assignor.)
Phillips, Byron B., Hudson, N. Y. Speed reducing power-transmitting mechanism. No. 1,414,894; May 2.
Platt, Haviland H., New York, N. Y. Method and apparatus for converting motion. No. 1,414,895; May 2.
Polivka, Joseph, Brooklyn, N. Y. Theft preventer. No. 1,414,666; May 2.
Pomilio, Otorino. (See Giovannoni, Guglielmo, assignor.)
Potter, Clarence S., et al. (See House, Herbert E., assignor.)
Potter, Warren T., et al. (See House, Herbert E., assignor.)
Pottle, Harry G., assignor, by mesne assignments, to Ludlow Typograph Company, Chicago, Ill. Typographical mechanism. No. 1,414,707; May 2.
Powell, R. E. (See Marshall, Chilton M., assignor.)
Prabst, Anthony C., and N. E. Holte, Antigo, Wis. Saw guard. No. 1,414,581; May 2.
Pratt, Alphonso C., Deep River, Conn., assignor to Whiting & Davis Company. Machine for making link mesh. No. 1,414,829; May 2.
Pratt, Alphonso C., Erie, Pa. Apparatus for making grommets. No. 1,414,828; May 2.
Pratt & Whitney Company. (See Olsen, Lawrence E., assignor.)
Prestwich, Sydney, Cincinnati, assignor to The American Laundry Machinery Company, Norwood, Ohio. Centrifugal extractor. No. 1,414,525; May 2.
Proctor & Schwartz, Incorporated. (See Bogaty, H., and Buckley, assignors.)
Projection Optics Company, Inc. (See Repp, William H., assignor.)
Psilander, Charles A., assignor to William Wharton, Jr., & Company, Incorporated, Easton, Pa. Self-adjusting guard-rail clamp. No. 1,414,708; May 2.
Puckett, C. A., et al. (See Kirkpatrick, Otey R., assignor.)
Pugh, Harry W., assignor to Western Electric Company, Incorporated, New York, N. Y. Adapter for calling devices. No. 1,414,373; May 2.
Putnam, Alden L., Detroit, Mich., assignor, by mesne assignments, to Detroit Pressed Steel Company, Wilmington, Del. Demountable wheel. No. 1,414,374; May 2.
Putnam, Alden L., Detroit, Mich., assignor to Detroit Pressed Steel Company, Wilmington, Del. Disk wheel. No. 1,414,375; May 2.
Pyle, Clarence E., Philadelphia, Pa., assignor to The S. S. White Dental Manufacturing Company. Annealing device. No. 1,414,789; May 2.
Rasmussen, Peter, assignor of one-half to S. Knight, Denver, Colo. Mechanism for transferring pans or other objects from one conveyer to an oppositely moving conveyer. No. 1,414,667; May 2.
Raybestos Co., The. (See Simpson, Sumner, assignor.)
Raybestos Company. (See Stanley, Frederick C., assignor.)
Read, Henry H., London, England. Packing case. No. 1,414,896; May 2.
Reed, Fred A., Syracuse, N. Y. Knurling tool. No. 1,414,668; May 2.
Reed, Walter S., et al., executors. (See Gayley, James.)
Reichold, Ludwig, Pittsfield, Mass., assignor to General Electric Company. Temperature-regulating device. No. 1,414,669; May 2.
Reilly, Francis J., New York, N. Y. Infant's bath chair. No. 1,414,897; May 2.
Reilly, Thomas A., Central Falls, R. I., assignor to J. & P. Coates (R. I.) Inc. Label. No. 1,414,830; May 2.
Reisbach, Gustav B., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Rheostat. No. 1,414,709; May 2.
Remington Accounting Machine Corporation. (See Hart, Frederick A., assignor.)
Repp, William H., assignor to Projection Optics Company, Inc., Rochester, N. Y. Projection lens. No. 1,415,002; May 2.
Rexworthy, Harold S. (See Behneman, F. J., and Rexworthy.)
Reynolds, Forrest. (See Rossi, D. A., and Reynolds.)
Riedinger, Franz, assignor to firm of Carl Zeiss, Jena, Germany. Horizontal telemeter. No. 1,414,790; May 2.
Rigaud, Henri. (See Kendall, William G., assignor.)
Roberto, Leopoldo, Philadelphia, Pa. Graphophone. No. 1,414,898; May 2.
Roberts, David, assignor of one-half to L. Headrick, Wilkinsburg, Pa. Tool. No. 1,414,750; May 2.
Roberts, Eugene, assignor to The Western States Machine Company, Salt Lake City, Utah. Centrifugal apparatus. No. 1,414,526; May 2.
Roberts, William, assignor of two-thirds to F. T. Lahey, Akron, Ohio. Battery plate. No. 1,414,710; May 2.
Roesen, Oscar, and I. Tornberg, assignors to R. Hoe and Co., New York, N. Y. Plate-clamp-operating tool. No. 1,414,485; May 2.
Roether, Jacob R., Brookyn, N. Y. Waterproofing material. No. 1,414,670; May 2.
Röhm & Haas Aktiengesellschaft. (See Bauer, Walter, assignor.)
Rohr, Andrew J. (See Durham, C. E., and Rohr.)
Root, Fred N., Kalamazoo, Mich. Life guard for street cars or similar vehicles. No. 1,414,435; May 2.
Rose, Henry, deceased, by W. H. Rose, administrator, Gainsborough, England. Machine or apparatus for wrapping cakes or blocks, such as caramels or other sweetmeats and the like. No. 1,414,831; May 2.
Rose, William H., administrator. (See Rose, Henry.)
Rossi, Domnick A., and F. Reynolds, Cleveland, Ohio. Excavating machine. No. 1,414,832; May 2.
Roth, John J., Dayton, Ohio. Photographic-printing machine. No. 1,414,582; May 2.
Rothfeld, Louis, New York, N. Y. Folding bed. No. 1,414,833; May 2.
Rothstein, Bernard L., Brooklyn, N. Y. Window construction for buildings. No. 1,414,583; May 2.
Royster, Kenneth B. (See Royster, William E., Jr., and K. B.)
Royster, William E., Jr., and K. B., Henderson, Ky. Computing machine. No. 1,414,436; May 2.
Ruby, Frank, Bridgeport, Conn. Automatic railway-accident preventer. No. 1,414,376; May 2.
Ruediger, Jerome J., Baltimore, Md. Sanitary milk-bottle lock. No. 1,414,584; May 2.
Rumery, Charles C., and F. G. Spates, Eastport, Me. Hot-water motor appliance. No. 1,414,751; May 2.
Rupp, Raymond C., Kendallville, Ind. Door closure for the top portions of automobiles. No. 1,414,585; May 2.
Rossell, Arthur, Hucknall, England. Coal-cutting machine. No. 1,414,586; May 2.
Russell Company, The. (See Kinsley, William S., assignor.)
Sabatelli, Michele M., Leominster, Mass. Vanity box. No. 1,414,899; May 2.
Salas, Mariano J., Molo Iloilo, Philippine Islands. Adjustable sole plate for plows. No. 1,414,587; May 2.
Salz, James, assignor, by mesne assignments, to Pencil Products Corporation, New York, N. Y. Hard-rubber pencil. No. 1,414,752; May 2.
Sammarone, Amato N., Akron, Ohio. Generator and motor support. No. 1,414,900; May 2.
Saunders, Griffin A., et al. (See Butler, Israel, assignor.)
Sauvage, William H., Flushing, assignor, by mesne assignments, to Gould Coupler Company, New York, N. Y. Slack adjuster. No. 1,414,671; May 2.
Scambler, Raymond O. (See Penn, Charles F., assignor.)
Schmidt, Henry F., Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Co. Thrust bearing. No. 1,414,711; May 2.
Schmidt, Louis C., Springfield, Ill. Banana rack and cover. No. 1,414,712; May 2.
Schulz, Otto, Chicago, Ill. Truck. No. 1,414,672; May 2.
Schurtz, Ralph E., Alamogordo, N. Mex. Automatic continuous refrigerator. No. 1,414,527; May 2.
Schwarzmann, Wolfgang E., Long Meadow, and C. H. Alvord, West Springfield, assignor to American Bosch Magneto Corporation, Springfield, Mass. Driving attachment for ignition apparatus. No. 1,414,753; May 2.
Scott, Raymond S., Denver, Colo. Process and apparatus for confection making. No. 1,414,528; May 2.
Scovil, Cora L., Washington, Pa. Patch poster. No. 1,414,588; May 2.
Scullin Steel Company. (See Doerr, Harry E., assignor.)
Seaholm, Nils, Mount Vernon, N. Y. Sound modulator for phonographs. No. 1,414,673; May 2.
Sears, Willard T., Montclair, and G. W. Jager, Bloomfield, N. J., assignors to Niles-Bement-Pond Company, New York, N. Y. Drilling machine. No. 1,414,486; May 2.

Sears, Willard T., Montclair, N. J., assignor to Niles-Bement-Pond Company, New York, N. Y. Drill-table mechanism. No. 1,414,487; May 2.
Seavey, Elmer S., Johnston, Pa. Method and apparatus for perforating metal shapes. No. 1,414,589; May 2.
Seeger, Edwin W., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Controller for synchronous motors. No. 1,414,791; May 2.
Seifert, William V., Thurman, Colo. Well-digging machine. No. 1,414,590; May 2.
Seither, Eugene L., Cleveland, Ohio. Bathtub installation. No. 1,414,792; May 2.
Self, Elwart T. (See Wood, A. D., Trantham, and Self.)
Seymour, Dudley S., Oak Park, assignor to Union Special Machine Company, Chicago, Ill. Feeding mechanism for sewing machines. No. 1,414,591; May 2.
Shelby Supply and Manufacturing Company. (See Case, Francis M., assignor.)
Sherbondy, Earl H., assignor to S. D. Waldon, Detroit, Mich. Universal joint. No. 1,414,377; May 2.
Sherman, Cecil H., and F. E. Morris; said Sherman assignor, by mesne assignments, of his entire right to J. C. Bergner, Philadelphia, Pa. Cooking apparatus. No. 1,414,713; May 2.
Shryock, Lewis G., Clarendon, Ark. Stereopticon-slide carrier. No. 1,414,488; May 2.
Sibsoh, Walter W. (See Allsop, T., and Sibson.)
Simpson, Sumner, assignor to The Raybestos Co., Bridgeport, Conn. Brake lining and making same. No. 1,414,378; May 2.
Singer Manufacturing Company, The. (See Corrall, H., and Stevens, assignors.)
Singer Manufacturing Company, The. (See Gatchell, George S., assignor.)
Singler, Albert A., Denver, Colo. Phonograph cabinet. No. 1,414,379; May 2.
Singmaster, James A., and F. G. Breyer, Palmerton, Pa., assignors to The New Jersey Zinc Company, New York, N. Y. Manufacture of lithopone. No. 1,414,793; May 2.
Skelly, Bernard H., Bridgeport, Conn. Lubricating system. No. 1,414,592; May 2.
Skinner, Bronson C., assignor to Skinner Machinery Company, Dunedin, Fla. Conveying apparatus. No. 1,414,674; May 2.
Skinner, Burr R., Aberdeen, S. Dak., assignor of one-half to R. Liebrich, Indianapolis, Ind. Necktie former and holder. No. 1,414,529; May 2.
Skinner Machinery Company. (See Skinner, Bronson C., assignor.)
Sklenka, Frederick F., Long Island City, N. Y. Border for hotbed and the like. No. 1,414,593; May 2.
Slater, Mabel H., New York, N. Y. Doll's head with movable eyes. No. 1,414,901; May 2.
Slick, Edwin E., Pittsburgh, Pa. Vehicle wheel. No. 1,414,437; May 2.
Slife, Frank L., assignor to The Elyria Iron & Steel Company, Cleveland, Ohio. Welding apparatus. No. 1,414,530; May 2.
Smith, Albert W., and G. A. Collins, Youngstown, Ohio. Fuel burner. No. 1,414,438; May 2.
Smith, Ernest R., San Francisco, Calif. Rotary index. No. 1,414,754; May 2.
Smith, Rufus C., Huntington, W. Va. Necktie-display stand. No. 1,414,902; May 2.
Smith, William H., Thames Ditton, England. Guiding means to aid in laying walls of blocks. No. 1,414,755; May 2.
Snead & Company. (See Macdonald, Harry P., assignor.)
Smierek, Ludwick, Elizabeth, N. J. Spring wheel. No. 1,415,006; May 2.
Snow, Charles S. H., South Hampstead, London, England. Wheel for motor road and other vehicles. No. 1,414,594; May 2.
Snyder, Frederick T., Oak Park, assignor to S. D. Flood, Chicago, Ill. Baking. No. 1,414,439; May 2.
Snyder, William A., Los Angeles, Calif. Window sash fastener. No. 1,414,595; May 2.
Societe Chimique des Usines du Rhone (Anciennement Gilliard P. Monnett et Cartier). (See Altwegg, Jean, assignor.)
Societe Chimique des Usines du Rhone (Anciennement Gilliard P. Monnett et Cartier.) (See Bouvier, Maurice, assignor.)
Sommer, John, Peoria, Ill., assignor, by mesne assignments, to The Union Trust Company, Cleveland, Ohio, and J. A. Chapman, Chicago, Ill., trustees. Stripping mechanism for wire-drawing blocks. No. 1,414,380; May 2.
Sorensen, John, Ottawa, Ill. Radiator core. No. 1,414,440; May 2.
Souter, Dracos, Baton Rouge, La. Hose holder. No. 1,414,834; May 2.
Spates, Frank G. (See Rumery, C. C., and Spates.)
Spencer, Henry B., Ottawa, Ontario, Canada. Train stop and train control. No. 1,414,596; May 2.
Sperr, Frederick W., Jr., and R. L. Brown, assignors to The Koppers Company, Pittsburgh, Pa. Recovery of pyridine from ammonium-sulphate solutions. No. 1,414,441; May 2.
Sperry Gyroscope Company, The. (See Sperry, Lawrence B., assignor.)
Sperry, Lawrence B., assignor to The Sperry Gyroscope Company, Brooklyn, N. Y. Automatic pilot for aeroplanes. No. 1,415,003; May 2.
Spohrer, Gregory J., East Orange, N. J. Vehicle dumping and jacking means. No. 1,414,835; May 2.
Sprague, John V., Pittsburgh, assignor of one-half to H. W. Cross, Bellevue, Pa. Humidor. No. 1,414,381; May 2.
Stafford, Lewis F., Chicago, Ill. Automobile bumper. No. 1,414,382; May 2.
Stanley, Frederick C., assignor to Raybestos Company, Bridgeport, Conn. Friction facing. No. 1,414,383; May 2.
Stapienski, Jan. (See Stapienski, Stanislaw and J.)
Stapienski, Stanislaw and J., Jersey City, N. J. Clothesline attachment. No. 1,414,794; May 2.
Stark, Arthur L., assignor to The Stibium Products Company, Elyria, Ohio. Making precipitated antimony sulphide. No. 1,414,836; May 2.
Stark, Arthur L., assignor to The Stibium Products Company, Elyria, Ohio. Making precipitated antimony sulphide. No. 1,414,837; May 2.
Starck, William A., assignor to Badger Manufacturing Corporation, Milwaukee, Wis. Clamp. No. 1,414,756; May 2.
Starr, George W., et al. (See Dennis, Howard B., assignor.)
Starrels, Joel, Niagara Falls, N. Y. Food product. No. 1,414,675; May 2.
Starrett, Henry F., assignor to Starrett Manufacturing Company, Chicago, Ill. Panel board and panel-board construction. No. 1,414,676; May 2.
Starrett, Henry F., assignor to Starrett Manufacturing Company, Chicago, Ill. Panel board and panel-board construction. No. 1,414,677; May 2.
Starrett Manufacturing Company. (See Starrett, Henry F., assignor.)
Stavenhagen, Otto, Charlottenburg, near Berlin, Germany. Letter file or registrator. No. 1,414,757; May 2.
Stavenhagen, Otto, Charlottenburg, near Berlin, Germany. Letter file or register. No. 1,414,758; May 2.
Steel Works Appliance Company. (See McKean, William L., assignor.)
Steenmeyer, John F., assignor of four-tenths to T. Steensma, Hull, Iowa. Paint composition. No. 1,414,597; May 2.
Steensma, Theodore. (See Steenmeyer, John F., assignor.)
Steese, Jay C. (See Hoff, C. A., and Steese.)
Steinberger, Louis, Brooklyn, N. Y. Telephone transmitter. No. 1,414,442; May 2.
Steiner, George A., Salt Lake City, Utah, assignor to American Linen Company, Minneapolis, Minn. Towel cabinet. No. 1,414,443; May 2.
Stephen, Archibald R., Lodi, Calif. Hand-picking table. No. 1,414,598; May 2.
Stevens, Bertram A. (See Corrall, H., and Stevens.)
Stevens, Elbridge W., Baltimore, Md., assignor to Chemical Fuel Company of America, Inc., Louisville, Ky. Motor fuel. No. 1,414,759; May 2.
Stevens, Leslie. (See Burch, George B., assignor.)
Stibium Products Company, The. (See Stark, Arthur L., assignor.)
Stiefel, Ralph C., Ellwood City, Pa. Annealing and other furnace. No. 1,414,489; May 2.
Stockman, Carl O., Albany, N. Y. Package tie. No. 1,414,599; May 2.
Straight, Charles S., Ranger, Tex. Tool. No. 1,414,531; May 2.
Straight, Halver R., Adel, Iowa. Building tile. No. 1,414,444; May 2.
Street, Fred, Philadelphia, Pa. Snap catch. No. 1,414,838; May 2.
Stuarts, Arthur, Pleasantville, N. Y. Wrench. No. 1,414,839; May 2.
Stucker, John M., and W. J. Kamerer, Rosedale, Kans. Vulcanizing attachment for internal-combustion engines. No. 1,414,445; May 2.
Stuth, Hugo V., Tacoma, Wash. Unloading apparatus for vehicles. No. 1,414,600; May 2.
Suman, John R., Houston, and A. R. Gamble, Velasco, Tex. Hoisting drum. No. 1,414,795; May 2.
Summit Thread Company. (See Johnson, Henry G., assignor.)
Summit Thread Company. (See Weaver, Lucius E., assignor.)
Sutliff, Franklin B., Jamison City, Pa. Gun. No. 1,414,714; May 2.
Swart, James W. (See Clements, C., Swart, and Nutbrown.)
Symington, T. H., Company, The. (See Anderson, Gustaf A., assignor.)
Symington, T. H., Company, The. (See Kadel, Byers W., assignor.)
Szemanske, Fasten, Parsons, Pa. Automatic mine-car-door opener. No. 1,414,760; May 2.
Tartrais, Eugène H., Maisons-Laffitte, France. Explosion engine working under injection of liquid fuel. No. 1,414,384; May 2.
Taylor, Clarence, Newport, R. I. Pin. No. 1,414,601; May 2.
Taylor, Harry P., Los Angeles, Calif. Mill. No. 1,414,602; May 2.
Taylor, Harry P., Los Angeles, Calif. Mill. No. 1,414,603; May 2.
Taylor-Wharton Iron and Steel Company. (See Mayer, Waldemar F., assignor.)
Taylor, William C., assignor to Corning Glass Works, Corning, N. Y. Glass. No. 1,414,715; May 2.

Teetor, Charles N., Hagerstown, Ind. Engine. No. 1,414,796; May 2.
Ter Cock, Chris, Flevorama, Naarden, Netherlands. Apparatus for the control of variable-speed gears. No. 1,414,933; May 2.
Terranova, Giuseppe E., New Haven, Conn. Musical toy. No. 1,414,446; May 2.
Terrell, Albert W., Newport News, Va. Flue cleaner. No. 1,414,840; May 2.
Thamann, George H., Covington, Ky. Lock bolt and nut. No. 1,414,761; May 2.
Thom, James C., Chicago, Ill., assignor to Combination Machine Company, New York, N. Y. Package-handling and label-preparing mechanism. No. 1,414,678; May 2.
Thomas, George B., assignor to The Bryant Electric Company, Bridgeport, Conn. Hinge joint for faceplate doors and the like. No. 1,414,841; May 2.
Thomas, James H., Los Angeles, Calif. Automobile combination jack. No. 1,414,903; May 2.
Thorbjornson, Anna C., Nadeau, Mich. Nipple for nursing bottles. No. 1,414,904; May 2.
Thum, Rudolf, Baldwin, N. Y. Sanitary tooth cleaner. No. 1,414,604; May 2.
Tiffany, Homer A., assignor to Benjamin Buckley's Son, Inc., Paterson, N. J. Spindle. No. 1,414,905; May 2.
Tolookjian, Richard, Paterson, N. J. Rotary washer. No. 1,414,605; May 2.
Tone, Frank J., assignor to The Carborundum Company, Niagara Falls, N. Y. Abrasive-coated sheets and making the same. No. 1,414,447; May 2.
Tornberg, Isidor. (See Roesen, O., and Tornberg.)
Townsend, Clinton P., Washington, D. C., assignor to Hooker Electrochemical Company, New York, N. Y. Making hydrochloric acid. No. 1,414,762; May 2.
Trantham, Lawson. (See Wood, A. D., Trantham, and Self.)
Trau, Isidor K., Louisville, Ky. Cap. No. 1,414,797; May 2.
Tresslar, Guy D., Flint, assignor to General Motors Corporation, Detroit, Mich. Friction-clutch member. No. 1,414,490; May 2.
Trosien, Charles G., Pontiac, Mich. Gear lock for automobiles. No. 1,414,716; May 2.
Trulock, Charles W., Los Angeles, Calif. Lamp-lock guard. No. 1,414,906; May 2.
Tru-Way Razor Company. (See Vance, John H., assignor.)
Turk, Frank, Pipestone, Minn. Watering trough. No. 1,414,532; May 2.
Turner, Walter E., Piqua, Ohio. V-notch liquid meter. No. 1,414,385; May 2.
Turney, Eugene T., Holmes, N. Y., assignor to Eugene T. Turney Laboratories, Inc., Newark, N. J. Coil-winding machine. No. 1,414,679; May 2.
Turney, Eugene T., Laboratories, Inc. (See Turney, Eugene T., assignor.)
Typograph G. m. b. H. (See Dörmeth, Julius, assignor.)
Underwood Computing Machine Company. (See Giles, Louis E., assignor.)
Underwood Typewriter Company. (See Helmond, William F., assignor.)
Union Special Machine Company. (See Seymour, Dudley S., assignor.)
Union Trust Company, The, et al., trustees. (See Sommer, John, assignor.)
United Shoe Machinery Corporation. (See Brock, Matthias, assignor.)
Vahe, Hector A., Decatur, Ill. Release rigging for couplings. No. 1,414,606; May 2.
Vance, John H., assignor to Tru-way Razor Company, Pittsburgh, Pa. Safety razor. No. 1,414,533; May 2.
Vanderveer, David E., assignor of one-half to C. W. Link, Los Angeles, Calif. Adjustable wind and storm shield for vehicles. No. 1,414,534; May 2.
Van Rensselaer, Allen, Los Angeles, Calif. Container. (Reissue.) No. 15,347; May 2.
Van Valkenburg, Randall T., Washington, D. C. Collapsible carrier. No. 1,414,535; May 2.
Variety Manufacturing Company. (See Crowe, Frederick C., assignor.)
Viberg, Ernest R., assignor to Canadian Car and Foundry Company Limited, Montreal, Quebec, Canada. Making brakebeam fulcrums. No. 1,414,607; May 2.
Victor Pin-Setter Company. (See Olsen, Alfred N., assignor.)
Victor X-Ray Corporation. (See Kelly, Edwin W., assignor.)
Vixson Company, The. (See Heames, Richard M., assignor.)
Voelker, Otto, Palmer, Kans. Packer and circular harrow. No. 1,414,842; May 2.
Vogt Bros. & Squier Company. (See Vogt, Clarence, assignor.)
Vogt, Clarence, Wenonah, N. J., assignor to Vogt Bros. & Squier Company, Philadelphia, Pa. Foot-control pedal. No. 1,414,907; May 2.
Voss, John, Evansville, Ind. Door structure for display cabinets. No. 1,414,843; May 2.
Vratil, Charles A., Pawnee Rock, Kans. Demountable rim. No. 1,414,844; May 2.
Wafer, Francais E., Chicago, Ill. Clincher-tire remover and replacer. No. 1,414,908; May 2.
Waldon, Sidney D. (See Sherbondy, Earl H., assignor.)
Wallace, David. (See Friedman, L., and Wallace.)
Wallenstein, Ralph, Providence, R. I. Coin holder. No. 1,414,845; May 2.
Ward, George R., Toronto, Ontario, Canada. Cylinder-grinding machine. No. 1,414,386; May 2.
Warner, Lawrence E. (See Mooers, B. M., and Warner.)
Warnock, Wm., Co. (See Ingvoldstad, Hildar E., assignor.)
Wasson, William W., assignor of one-half to G. I. Clithero, Yakima, Wash. Vending machine. No. 1,414,909; May 2.
Watson, Bazel R., Everett, Wash. Saw handle. No. 1,414,608; May 2.
Watson, Robert, Silver Spring, Md. Means for indicating stopping, idling, and working times of automobile engines. No. 1,414,910; May 2.
Watson, Robert, Silver Spring, Md. Time indicator for automobiles. No. 1,415,004; May 2.
Watson, Theodore W., Phoenix, Ariz. Receptacle support. No. 1,414,911; May 2.
Weaver, Lucius E., assignor to Summit Thread Company, East Hampton, Conn. Sewing-machine bobbin case. No. 1,414,763; May 2.
Webster, Laura F., and R. J. Christianson, St. Helena, Calif. Advertising device. No. 1,414,536; May 2.
Weimar, Conrad S., Elizabeth, N. J. Antiskid chain anchor. No. 1,414,846; May 2.
Weliszek, Joseph. (See Obach, Kazimnierz A., assignor.)
Welch, Harry V., assignor to International Precipitation Company, Los Angeles, Calif. The recovery of metallic values from slag. No. 1,414,491; May 2.
Welcker, Paul H., assignor to Brown & Bigelow, St. Paul, Minn. Pocket case. No. 1,414,798; May 2.
Wells, Elbie, Hamilton, Ohio. Tool. No. 1,414,847; May 2.
Welsh, James. (See Donley, F. S., and Welsh.)
Wendelken, Richard. (See Cox, J. J., and Wendelken.)
Wenzowitz, Michael, Chicago, Ill. Tire chain. No. 1,414,848; May 2.
Wessell, Fernando A., Redbank, N. J. Pianissimo device for player pianos. No. 1,414,680; May 2.
Wexler, Benjamin, assignor to The Peelle Company, Brooklyn, N. Y. Dumb-waiter door. No. 1,414,387; May 2.
Western Electric Company. (See Nicolson, Alexander M., assignor.)
Western Electric Company. (See Pugh, Harry W., assignor.
Western States Machine Company, The. (See Roberts, Eugene, assignor.)
Westinghouse Air Brake Company. (See Dudley, Samuel W., assignor.)
Westinghouse Air Brake Company. (See Grosswege, John B., assignor.)
Westinghouse Electric & Manufacturing Company. (See Frederick, Louis T., assignor.)
Westinghouse Electric & Manufacturing Company. (See Gazda, Adolph A., assignor.)
Westinghouse Electric & Manufacturing Company. (See Harvey, Albert L., assignor.)
Westinghouse Electric & Manufacturing Company. (See Hodgkins, Charles H., assignor.)
Westinghouse Electric & Manufacturing Company. (See Kemp, R., and Johnson, assignors.)
Westinghouse Electric & Manufacturing Company. (See Kempton, Willard H., assignor.)
Westinghouse Electric & Manufacturing Company. (See Kries, Lawrence F., assignor.)
Westinghouse Electric & Manufacturing Company. (See Lammers, Edwin S., Jr., assignor.)
Westinghouse Electric & Manufacturing Company. (See Lynch, Tillman D., assignor.)
Westinghouse Electric & Manufacturing Company. (See Mardis, Paul L., assignor.)
Westinghouse Electric & Manufacturing Company. (See Miller, C. F., and Allen, assignors.)
Westinghouse Electric & Manufacturing Co. (See Schmidt, Henry F., assignor.)
Wharton, William, Jr., & Company, Incorporated. (See Psilander, Charles A., assignor.)
Wheeler, Frank C., Montreal, Quebec, Canada. Method and composition for rendering materials fireproof. No. 1,414,609; May 2.
White, S. S., Dental. Manufacturing Company. (See Pyle, Clarence E., assignor.)
Whiting Chain Company. (See Killion, John F., assignor.)
Whiting & Davis Company. (See Pratt, Alphonso C., assignor.)
Whittingham, George H., Baltimore, Md. Ignition-circuit controller. No. 1,414,912; May 2.
Whittingham, George H., Baltimore, Md. Ignition-circuit controller. No. 1,414,913; May 2.
Widenham, Allen W., Oakland, Calif. Vehicle curtain construction and mounting. No. 1,414,681; May 2.
Williams, Arthur F., assignor to Williams Patent Crusher and Pulverizer Co., St. Louis, Mo. Crusher. No. 1,414,799; May 2.
Williams, Frank P., Detroit, Mich. Sheet-metal bed. No. 1,414,765; May 2.
Williams, John R., Walnutport, Pa. Educational game. No. 1,414,849; May 2.
Williams Patent Crusher and Pulverizer Company. (See Williams, Arthur F., assignor.)

Williams, William B., Greenville, S. C. Whip roll for looms. No. 1,414,850; May 2.
Willig, Fred W., Gervais, Oreg. Detachable extension rim for tractor wheels. No. 1,414,537; May 2.
Wilputte, Alice A., et al. (See Pavitt, William H., Jr., assignors.)
Wilputte, Alice A. (See Wilputte, Louis, assignor.)
Wilputte, Louis, et al. (See Pavitt, William H., Jr., assignor.)
Wilputte, Louis, assignor of two-thirds to A. A. Wilputte, New Rochelle, N. Y. Standpipe connection. No. 1,414,492; May 2.
Wilson, Percy H., Nottingham, England. Apparatus for measuring, indicating, and recording the flow of fluid. No. 1,414,388; May 2.
Wilson, Samuel J., Roberts, assignor of one-half to Perry Basinger, Clyde, Idaho. Beet and potato digger and elevator. No. 1,414,538; May 2.
Wilson, William E., Evansville, Ind. Heater for automobile radiators and engines. No. 1,414,539; May 2.
Windell, Frank D., Philadelphia, Pa. Electric draft controller. No. 1,414,448; May 2.
Wines, Carleton H. (See Hosmer, C. C., and Wines.)
Winter, Julius. (See Cox, J. J., and Wendelken, assignors.)
Wistoft, Sören, Copenhagen, Denmark. Pendulum scale. No. 1,414,764; May 2.
Withun, Lawrence O., Capsac, Mich. Rotary drier. No. 1,414,766; May 2.
Witzig, John, Astoria, N. Y. Roll. No. 1,414,449; May 2.
Wolf, Augustus, Chambersburg, Pa. Bolting machine. No. 1,414,851; May 2.
Wolf, Walter F. (See Dickson, James G., assignor.)
Wood, Albert D., L. Trantham, and E. T. Self, Canton, N. C. Pulp-wood breaker. No. 1,414,914; May 2.
Wood, Robert, Brooklyn, N. Y. Lubricating apparatus. No. 1,414,610; May 2.
Woods, S. A., Machine Company. (See Blood, C. W. H., and Osteman, assignors.)
Woodruff, Albert N., New York, N. Y. Copy-holding device. No. 1,414,389; May 2.
Woollard, Frank, Billerica, assignor of one-half to G. L. Woollard, Boston, Mass. Pedal lock for automobiles. No. 1,414,390; May 2.
Woollard, Guy L. (See Woollard, Frank, assignor.)
Young, Amos P. and C. R., Leesburg, Ind. Pot cover. No. 1,414,540; May 2.
Young, Clarence R. (See Young, Amos P. and C. R.)
Zautner, Albert R., Cleveland, Ohio. Retail-box container. No. 1,414,682; May 2.
Zeiss, Firm of Carl. (See Eppenstein, Otto, assignor.)
Zeiss, Firm of Carl. (See Riedinger, Franz, assignor.)
Ziemsen, Wilhelm, Brunswick, Germany. Baker's oven. No. 1,414,717; May 2.
Zinn, Henry J., Kingston, Pa. Cutlery. No. 1,414,997; May 2.
Znak, John J., Broughton, Pa. Rail joint. No. 1,414,450; May 2.

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

Adams, John L., Chicago, Ill. Pen fountain. No. 60,924; May 2.
Campbell, Charles A., New York, N. Y. Lighting bulb. No. 60,925; May 2.
Fritch, Elue O. (See Glidden, A. A., and Fritch.)
Glidden, Alfred A., Watertown, and E. O. Fritch, Belmont, Mass., assignors to Hood Rubber Company, Watertown, Mass. Vehicle tire. No. 60,926; May 2.
Hood Rubber Company. (See Glidden, A. A., and Fritch, assignors.)
Hutchens, Ralph W., Eau Claire, Wis., and S. P. Woodard, New York, N. Y., assignors to Stanwood Rubber Company, Newark, N. J. Tire tread or similar article. No. 60,927; May 2.
Liberfreund, Nathan, Passaic, N. J. Charm. No. 60,928; May 2.
Loewenthal Farber Katz Co. (See Meyers, Edward G., assignor.)
Lutsky, Bernard, Brooklyn, assignor to J. S. Tuttman, New York, N. Y. Combined nutcracker and bottle opener. No. 60,929; May 2.
Meyers, Edward G., Passaic, N. J., assignor to Loewenthal Farber Katz Co., Chicago, Ill. Mattress ticking or similar article of manufacture. No. 60,930; May 2.
Meyers, Edward G., Passaic, N. J., assignor to Loewenthal Farber Katz Co., Chicago, Ill. Mattress ticking or similar article of manufacture. No. 60,931; May 2.
Stanwood Rubber Company. (See Hutchens, R. W., and Woodard, assignors.)
Tuttman, Joseph S. (See Lutsky, Bernard, assignor.)
Woodard, Stanley P. (See Hutchens, R. W., and Woodard.)

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

Allen-Qualley Company, St. Paul, Minn. Candy. No. 154,768; May 2.
Brush, Charles L., San Francisco, Calif. Candy sandwiches. No. 154,769; May 2.
Dairy Association Co. Inc., Lyndonville, Vt. Medicinal preparation. No. 154,770; May 2.
Durant Motor Company of New York, Inc., New York, N. Y. Automobiles, motor cars, and trucks, and parts thereof. No. 154,764; May 2.
Hunt Brothers Packing Company, San Francisco, Calif. Canned fruits, vegetables, tuna fish, and preserves. No. 154,771; May 2.
Kitchens, Nellie S., Los Angeles, Calif. Anointing oil and hair restorative. No. 154,765; May 2.
Little Giant Company, Mankato, Minn. Machine forging hammers and metal and wood lathes. No. 154,766; May 2.
Maillard, Henry, Inc., New York, N. Y. Chocolate confections. No. 154,772; May 2.
Manas, Carl, New York, N. Y. Malted milk. No. 154,773; May 2.
Rogers, John W., Washington, D. C. Medicine used in the treatment of constipation and liver complaint. No. 154,767; May 2.
Shaw, Marvin, & Co., New York, N. Y. Children's and misses' dresses. No. 154,774; May 2.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

Bender, Charles D., St. Louis, Mo. "Cleanbright Washing Tablets." (For Washing Tablets.) No. 24,292; May 2.
Berry, Dr. C. H., Company, Chicago, Ill. "Kremola." (For Face Creams.) No. 24,293; May 2.
Booth, F. E., Company, San Francisco, Calif. "Crescent Brand." (For Sardines.) No. 24,294; May 2.
Bulka, Max E., Chicago, Ill. "Friendly Tip." (For Cigars.) No. 24,295; May 2.
Cole Lithographing and Printing Co., Chicago, Ill. "Cuban Samples." (For Cigars.) No. 24,296; May 2.
Crouch & Plassman, Bridgeport, Conn. "Manna Bread." (For Bread.) No. 24,297; May 2.
Cultured Coffee Company of America, Detroit, Mich. "Anza The Culture Ripened Coffee." (For Coffee.) No. 24,298; May 2.
Dan-Doo Co., The, Kansas City, Mo. "Dan-Doo." (For Containers for a Massage Cream, for Treatment of Dandruff, Black Heads, Eczema, and Pimples of Skin and Scalp.) No. 24,299; May 2.
Eclipse Mills Company, Inc., Philadelphia, Pa. "Everlastik Sport Coat." (For Sweaters.) No. 24,300; May 2.
Edwards, Glen T., San Francisco, Calif. "Speed." (For Boxes Containing a Corn, Wart, and Mole Remedy.) No. 24,301; May 2.
Fox, C. J., Company, The, Providence, R. I. "'Laurelette.'" (For Display Cards for Jewelry.) No. 24,302; May 2.
Freihofer, William, Philadelphia, Pa. "Sandwich Bread." (For Bread.) No. 24,303; May 2.
Goldsmith, Joseph, Jr., Chicago, Ill. "Del Monte." (For Soft Collar Pins.) No. 24,304; May 2.
Green & Green Company, The, Dayton, Ohio. "Served as Bread." (For Cartons Containing Crackers.) No. 24,305; May 2.
Hunt Brothers Packing Company, San Francisco, Calif. "Hunts Supreme." (For Canned Peaches.) No. 24,306; May 2.
King Koffee Kompany, The, Indianapolis, Ind. "King Kwality Koffee." (For Coffee.) No. 24,307; May 2.
Kling Bros. & Co., Inc., Chicago, Ill. "Durable as Grandma's Knitting." (For Sweaters.) No. 24,308; May 2.
Lindsborg Milling & Elevator Company, The, Lindsborg, Kans. "Safety First." (For Kansas Hard Wheat Flour.) No. 24,309; May 2.
Martorelli, Raffaele, New York, N. Y. "Caruso." (For Olive Oil.) No. 24,310; May 2.
Olafson-Cohen-Anderson Mfg. Co. Inc., St. Paul, Minn. "The Sanitary Talcum Powder Dispenser." (For Talcum Powder Dispensers.) No. 24,311; May 2.
Orsinger, L. V., La Salle, Ill. "Iceberg Ice Cream Bar." (For Ice Cream and Ice-Cream Confections.) No. 24,312; May 2.
Parodi Cigar Co., Inc., Jersey City, N. J. "Avanti." (For Boxes Containing Cigars.) No. 24,313; May 2.
Patrick, J. K., Athens, Ga. "Patrick's Mentho-Mustard." (For Ointment.) No. 24,314; May 2.
Planters Products Company, Atlanta and Montezuma, Ga. "Pride of Georgia Sweets." (For Crates and Other Receptacles Used in Shipping Selected Sweet Potatoes.) No. 24,315; May 2.
Robertson Paper Co., Inc., Bellows Falls, Vt. "Cupid Bread." (For Bread.) No. 24,316; May 2.
Salisbury, William H., Los Angeles, Calif. "Instantaneous Metal Polish." (For Bottles Containing a Liquid Metal Polish.) No. 24,317; May 2.
Saniwax Paper Co., Kalamazoo, Mich. "Butter Krust." (For Bread.) No. 24,318; May 2.
Simon, Issor, Wilkes-Barre, Pa. "Look New Simon-i-Polish." (For Bottles of Polish for Silver, Brass, and other Metals.) No. 24,319; May 2.
South Carolina Sweet Potato Association, Florence, S. C. "Carolina Brand." (For Sweet Potatoes.) No. 24,320; May 2.
Strong, John L., Sioux City, Iowa. "Arctic Ice Cream Bar." (For Chocolate Coated Confection Bars.) No. 24,321; May 2.
Strong, John L., Sioux City, Iowa. "Coney Island Ice Cream Bar." (For Chocolate Coated Confection Bars.) No. 24,322; May 2.
Titus, Lincoln G., Cleveland, Ohio. "Moose." (For Trousers.) No. 24,323; May 2.
Universal Products Co., Los Angeles, Calif. "O-So-Clean." (For Cleaning White-Enamel Woodwork, Porcelain, Marble, Glass, etc.) No. 24,324; May 2.
Ward Baking Company, New York, N. Y. "Homelike." (For Cake.) No. 24,325; May 2.
White & Wyckoff Mfg. Co., Holyoke, Mass. "Enchantment Linen." (For Boxes of Stationery.) No. 24,326; May 2.
White & Wyckoff Mfg. Co., Holyoke, Mass. "Holland Fabric Finish." (For Boxes of Stationery.) No. 24,327; May 2.
White & Wykoff Mfg. Co., Holyoke, Mass. "De Pree Quality Lawn." (For Boxes of Stationery.) No. 24,328; May 2.
White & Wyckoff Mfg. Co., Holyoke, Mass. "Pierrette." (For Boxes of Stationery.) No. 24,329; May 2.

ALPHABETICAL LIST OF REGISTRANTS OF PRINTS.

Genesee Pure Food Company, The, Le Roy, N. Y. "The Nightmare." (For Advertising Purposes for Jell-O, a Dessert Preparation.) No. 6,084; May 2.
Hills Bros., San Francisco, Calif. "Treasure." (For Advertising Purposes for Coffee.) No. 6,085; May 2.
Hills Bros., San Francisco, Calif. "End of the Hunt." (For Advertising Purposes for Coffee.) No. 6,086; May 2.
Hills Bros., San Francisco, Calif. "The Choice of Hosts." (For Advertising Purposes for Coffee.) No. 6,087; May 2.
Mathews, Frederick C., Company, Detroit, Mich. "Detroit Creamery Velvet Brand Ice Cream." (For Advertising Purposes for Ice Cream.) No. 6,088; May 2.
Milwaukee Paper Box Company, Milwaukee, Wis. "Cherries." (For Advertising Purposes for Chocolate-Covered Cherries in Cream.) No. 6,089; May 2.
Milwaukee Paper Box Company, Milwaukee, Wis. "Banner Brush." (For Advertising Purposes for Brushes.) No. 6,090; May 2.
Olafson-Cohen-Andrews Mfg. Co. Inc., St. Paul, Minn. "The Sanitary Talcum Powder Dispenser." (For Advertising Purposes for Packages Containing Talcum-Powder Pads and Talcum-Powder-Pad Holders.) No. 6,091; May 2.
Shaughnessy, W. L., Co. Inc., Gardner, Mass. "Daintee Corn Holder." (For Advertising Purposes for a Corn Holder.) No. 6,092; May 2.
Simon Coat Co., The, Boston, Mass. "Dinty's Sheep Coat." (For Advertising Purposes for Sheep-Lined Coats.) No. 6,093; May 2.
Standard Tire Company, The, Willoughby, Ohio. "Tiger-Foot." (For Advertising Purposes for Tires.) No. 6,094; May 2.
West Varnish Co., Boston, Mass. "Indestructo." (For Advertising Purposes for Varnish.) No. 6,095; May 2.

ALPHABETICAL LIST OF TRADE-MARK APPLICANTS.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Abel Bros. & Co. Inc., New York, N. Y. Lapel buttons, shirt studs, lockets, etc. No. 151,649; May 2.

Alexopoulos, C., Bros. Inc., New York, N. Y. Drills, twills, bleached and unbleached sheetings, plaids and stripes, denim, etc. No. 158,108; May 2.

American Brass Company, The, Waterbury, Conn. Cast, drawn, and other metals and alloys and ingots, castings, etc., made from such metals and alloys. No. 155,852; May 2.

American Chemical & Drug Company Inc., Olyphant, Pa. Solidified liniment. No. 156,732; May 2.

American Radio Sales and Service Company, The, Mansfield, Ohio. Appliances for radio mechanism. No. 153,864; May 2.

American Writing Paper Company, Holyoke, Mass. Writing and printing papers. No. 157,292; May 2.

Arend, A., Drug Co., Chicago, Ill. Medicinal preparation for the treatment of the nerves, stomach, etc. No. 149,533; May 2.

Auto-Vehicle Parts Company, The, Cincinnati, Ohio. Nails and tacks. No. 155,425; May 2.

Automobile Device Co. (See Traf-O-Lite Manufacturing Company.)

Ballhorn, William, Garwin, Iowa. Remedy for fistula and poll evil in horses and cattle. No. 156,071; May 2.

Baltic Chemical Co. (See Rottenberg, Benjamin.)

Banner Silk Knitting Mills, Inc., The, New York, N. Y. Silk knitted cloth. No. 157,356; May 2.

Bauer & Black, Chicago, Ill. Talcum powder. No. 155,592; May 2.

Bauman, Max, trading as M. Bauman & Company, New York, N. Y. Finger rings. No. 157,297; May 2.

Beaver Mach. & Tool Co., Inc., Newark, N. J. Electrical, attachment, and switch plugs. No. 158,847; May 2.

Benavides, Gabriel J., Philadelphia, Pa. Ointment remedies for dandruff. No. 156,433; May 2.

Berg Bros. Mfg. Company, Chicago, Ill. Spark timers for internal-combustion engines. No. 151,780; May 2.

Berry Brothers, Detroit, Mich. Varnishes. No. 155,083; May 2.

Black Hawk Oil Company, The, Cedar Falls, Iowa. Gasoline. No. 158,174; May 2.

Blasdel Products Co. (See Shapleigh, Blasdel.)

Botelho Francis M., trading as Francis M. Botelho Co., Philadelphia, Pa. Pearls, necklaces, and clasps. No. 155,474; May 2.

Bridgeport Brass Company, Bridgeport, Conn. Brass rods. No. 154,473; May 2.

Buettell Brothers Company, Dubuque, Iowa. Blank and memorandum books, loose-leaf binders, writing and typewriting paper, lead pencils, etc. No. 158,849; May 2.

Burlingame Manufacturing Company. (See Burlingame, Roderick S.)

Burlingame, Roderick S., trading as Burlingame Manufacturing Company, Syracuse, N. Y. Clothes-washing machine. No. 153,428; May 2.

Carlson, Frank, Minneapolis, Minn. Preparation for the throat and lungs. No. 156,780; May 2.

Central Wheel Company, Sturgis, Mich. Children's velocipedes. No. 159,563; May 2.

Chalmers Chemical Company, Newark, N. J. Paint and varnish removers. No. 157,756; May 2.

Chemische Fabrik Griesheim-Elektron, Frankfort-on-the-Main, Germany. Preparations consisting in calcium hypochlorite or containing calcium hypochlorite. No. 146,163; May 2.

Cheramy, Incorporated, New York, N. Y. Perfume, toilet water, face lotion and powder, etc. No. 157,023; May 2.

Chicago Glass Products Company, The, Chicago, Ill. Glass products. No. 156,680; May 2.

Chicago Timer Factory Incorporated, Chicago, Ill. Timers for internal-combustion engines. No. 157,257; May 2.

Clark Bros. Mfg. Co., Camden, N. J., and Philadelphia, Pa. Rope, rovings, cords, and twines made from vegetable and animal fibers. No. 157,887; May 2.

Clark Thread Company, The, Newark, N. J. Thread and yarn. No. 160,794; May 2.

Clements Mfg. Co., Chicago, Ill. Electric suction sweepers. No. 150,657; May 2.

Climax Polish Company, The. (See Ziegler, Gustav F.)

Columbus Manufacturing Company, Columbus, Ga. Cotton sheetings. No. 155,256; May 2.

Combustinwerk Eulitz & Co., Fahrbrucke, Germany. Salves and ointments. No. 148,018; May 2.

Complexion Products Co., New York, N. Y. Liquid chemical preparation for use in making face powder adhere to the skin. No. 157,056; May 2.

Container Company, The, Toledo, Ohio. Fiber pails, drums, and cheese boxes and fiber containers for shipping commodities. No. 146,955; May 2.

Continental Mills, Inc., Philadelphia, Pa. Knitted woolen and worsted cloths, eiderdowns, chinchillas, etc. No. 155,804; May 2.

Conway, Carle C. and E. E., and T. P. Brown, trading as Hallet & Davis Piano Co., Boston, Mass. Pianos. No. 152,800; May 2.

Cosmos Trading Company. (See Klemperer, Gustav.)

Crim, Otis P., trading as Dairy-Maid Baking Powder Company, Anderson, Ind. Baking powder. No. 157,057; May 2.

Dairy-Maid Baking Powder Company. (See Crim, Otis P.)

Dampney Company of America, The, Boston, Mass. Protective paint coatings. Nos. 157,027–8; May 2.

Derwent Mills Limited, Matlock Borough, England. Woven, knitted, and other cloths and stuffs. No. 137,922; May 2.

Detroit Twist Drill Company, Detroit, Mich. Milling reamers and cutters. No. 144,668; May 2.

Detroit Washing Machine Corporation, Detroit, Mich. Laundry washing machine. No. 154,437; May 2.

Dewey, Edward B., Washington, D. C., and New York, N. Y. Hair nets. No. 158,079; May 2.

De Zeng, Henry L., trading as De Zeng-Standard Co., Camden, N. J. Eye, ear, nose, and throat diagnostic instruments. No. 155,602; May 2.

Du Pont, E. I., de Nemours & Company, Wilmington, Del. Toilet, hair, and tooth-paste-tube receptacles, etc. No. 140,929; May 2.

Electric Outlet Company, Inc., New York, N. Y. Wall and ceiling plates and connections for electric-lighting fixtures, etc. No. 155,551; May 2.

Electrical Engineers Equipment Company, Chicago, Ill. Disconnecting switches, lightning arresters, choke coils. No. 142,700; May 2.

Elektrizitätsgesellschaft Sanitas mit beschrankter Haftung, Berlin, Germany. Electric hot-air baths, electrical massage device, and electric hot-air douches. No. 145,885; May 2.

Embalming Burial Case Company, Burlington, Iowa. Burial cases. No. 156,361; May 2.

Essen Perfumery Company, The. (See Neiman, Solomon.)

Estate of Joseph J. Schaefer, Dayton, Ohio. Cigars. No. 146,996; May 2.

Ever Ready Garment Bag Co., The, New York, N. Y. Moth and dust proof garment bags. No. 154,921; May 2.

Everett, Edward A., trading as Railroad Accessories Corporation, Long Island City, N. Y. Lightning arresters. No. 153,547; May 2.

Fabrique d'Horlogerie de Fontainemelon, S. A., Fontainemelon, Switzerland. Watch blanks. Nos. 137,771–2; May 2.

Feng Laboratories, Inc., New York, N. Y. Medicinal preparations. No. 155,958; May 2.

Firth, John, & Co., Inc., New York, N. Y. Apparatus for amplifying the effects of electric currents and for converting into sound electric currents representing telegraphic, telephonic, and other signals. No. 157,518; May 2.

Flagg & Mowry. (See Flagg, Andrew B.)

Flagg, Andrew B., trading as Flagg & Mowry, North Attleboro, Mass. Vanity cases. No. 158,828; May 2.

Fruit and Produce Exchange of Great Britain, Limited, London, England. Sacks, wooden cases, boxes, crates, etc. No. 140,026; May 2.

Giebeler & Goldman, Merced, Calif. Figs. No. 145,331; May 2.

Globe Refining Company, The, Cleveland, Ohio. Lubricating oil and grease. No. 158,767; May 2.

Gold Mark Knitting Co., Woonsocket, R. I. Knitted goods of wool and wool mixture. No. 156,896; May 2.

Gsell, Roland A., New York, N. Y. Watches, watchcases, watch movements, and parts thereof. No. 135,993; May 2.

Haddock, Parker & Co., Liverpool, England. Candles and oils. No. 140,385; May 2.

Haines, Dr. A. C., Columbus, Ohio. Medicinal preparations used in the treatment of hemorrhoids. No. 148,287; May 2.

Hallet & Davis Piano Co. (See Conway, Carle C., et al., trustees.)

Hemco Electric Manufacturing Company, Inc., New York, N. Y. Electric fixtures. Nos. 158,868–9; May 2.

Herman, Joseph, New York, N. Y. Perfumes and toilet water. No. 155,883; May 2.

Hoch, Benjamin L., Brooklyn, N. Y. Antiseptic toothbrush containers of cabinet form. No. 157,567; May 2.

Hopkins, Nevil M., New York, N. Y. Fireproof paints and varnishes. No. 156,966; May 2.

Inter-Collegiate Press, Kansas City, Mo. Writing paper. No. 147,026; May 2.

Jaquet, Daniel, trading as Parfums Fontanis, Paris, France. Toilet preparations. No. 152,755; May 2.

Joon Perfumery Co. (See Powers, Emmett.)

Kappus, John M., trading as United Service Distributors, Cleveland, Ohio. Laxative tablets. No. 145,218; May 2.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Katz & Ogush, Inc., New York, N. Y. Finger rings, bar and scarf pins, bracelets, watch chains, etc. No. 158,477; May 2.

Kienzle Uhrenfabriken Kommanditgesellschaft, Schwenningen on Neckar, Germany. Alarm clocks, alarm watches, and watches. No. 142,847; May 2.

Klemperer, Gustav, trading as Cosmos Trading Company, New York, N. Y. Hair nets. No. 155,502; May 2.

Kohn, Adler & Co., Philadelphia, Pa. Silks, velvets, and ribbons in the piece. No. 153,252; May 2.

La Societe des Produits Chimiques Coignet, Paris, France. Glue and gelatine. No. 157,322; May 2.

Lincoln Light Corporation, Grafton, Wis. Electric-power-generating units. No. 157,432; May 2.

Lockwood, Aleatha H., Hartford, Conn. Corsets, hose supporters, abdominal belts, brassières, etc. No. 154,034; May 2.

Loose Wiles Biscuit Company, Long Island City, N. Y. Cakes, wafers, crackers, biscuits. No. 152,711; May 2.

Lucas, Louis, Company, Inc., Jamestown, N. Y. Aromatic incense. No. 155,818; May 2.

Lyon & Healy, Chicago, Ill. Talking machines and music boxes. No. 157,158; May 2.

McCloskey Varnish Co., Philadelphia, Pa. Varnishes. No. 156,165; May 2.

McConaghy, Anna V., Washington, D. C. Lubricating and illuminating oils and greases and gasoline. No. 157,529; May 2.

McCreery, James, & Company, New York, N. Y. Nail files and buffers, manicuring scissors, cuticle knives. No. 158,244; May 2.

McDougall-Butler Co. Inc., Buffalo, N. Y. Paints, fillers, stains, etc. No. 152,853; May 2.

Marine Decking & Supply Company, Philadelphia, Pa. Paints of ready-mixed form and varnishes, fillers, paint, pigments, and vehicles, driers, and chrome. No. 157,328; May 2.

May Department Stores Company, The, St. Louis, Mo. Imitation pearls. No. 155,700; May 2.

Meiman, Solomon, trading as The Essen Perfumery Company, New York, N. Y. Astringent, hair tonic, skin lotion, cleansing cream, complexion powder, etc. No. 156,069; May 2.

Miniature Breaker Co. Inc., Long Island City, N. Y. Starting switches and circuit interrupters. No. 158,482; May 2.

Mission Bead Company, Los Angeles, Calif. Bead necklaces. No. 154,087; May 2.

Modern Light Supply Company. (See Rabinovitz, Joseph.)

Morgan Company, The, Vincennes, Ind., and Peoria, Ill. Varnishes, finishes, lacquers, etc. Nos. 149,920–1; May 2.

Morse and Burt Co., Inc., Brooklyn, N. Y. Shoes. No. 156,700; May 2.

Mount Hope Finishing Company, Dighton, Mass. Cotton, silk, and other piece goods. No. 155,765; May 2.

N. M. T. A. Mfg. Co. (See Rosenfield, Adolph A.)

Naregan, Joseph E., Los Angeles, Calif. Suspensories. No. 156,918; May 2.

Ner-A-Car Corporation, Syracuse, N. Y. Motor cycles. No. 159,279; May 2.

New England Spun Silk Corporation, Boston and Newton Upper Falls, Mass., and New York, N. Y. Spun silk yarns. Nos. 159,374–5; May 2.

New England Spun Silk Corporation, Boston and Newton Upper Falls, Mass., and New York, N. Y. Spun silk yarns. Nos. 159,377–84; May 2.

Nifty Jar & Cooker Manufacturing Company, The, Cincinnati, Ohio. Food containers, more particularly glass jars. No. 157,844; May 2.

Orr, James, & Sons, Limited, Manchester, England. Cotton voile cloths. No. 156,461; May 2.

Ovington Bros. Company, New York, N. Y. Scarf pins, watch chains, jewelry, table knives, etc. No. 142,403; May 2.

Pace Phonograph Corporation, New York, N. Y. Phonographs, phonograph records, player and manual pianos, organs, and player rolls. No. 157,387; May 2.

Pacific Mills, Lawrence and Boston, Mass. Cotton piece goods. No. 142,667; May 2.

Parfums Fontanis. (See Jaquet, Daniel.)

Paristyle Novelty Co. Inc., New York, N. Y. Hair nets. No. 158,438; May 2.

Passaic Print Works, Passaic, N. J. Cotton piece goods. No. 156,405; May 2.

Passaic Print Works, Passaic, N. J. Cotton piece goods. No. 156,411; May 2.

Pease & Dwyer Co., Memphis, Tenn. Field and garden seeds. No. 156,057; May 2.

Plate, Ernst W., Philadelphia, Pa. Stringed musical instruments and the parts thereof. No. 155,115; May 2.

Poage, Clifford B., Columbus, Ohio. Finger rings. No. 158,006; May 2.

Powers, Emmett, trading as Joon Perfumery Co., Denver, Colo. Toilet preparations. No. 155,632; May 2.

Powers Paper Company, Springfield, Mass. Writing, printing, and typewriter paper, papeteries, correspondence envelopes, etc. No. 157,952; May 2.

Powers Paper Company, Springfield, Mass. Writing, printing, and typewriter paper, papeteries, correspondence envelopes, etc. No. 157,955; May 2.

Propper Silk Hosiery Mills, Inc., New York, N. Y. Women's hosiery. No. 149,349; May 2.

Purabrand Products Co., The, Pleasant Hill, Ohio. Medicine for the treatment of stomach, liver, and kidney troubles, constipation, etc. No. 156,462; May 2.

Rabinovitch, Joseph, trading as Modern Light Supply Company, Philadelphia, Pa. Electrical lighting fixtures and supplies. No. 143,650; May 2.

Railroad Accessories Corporation. (See Everett, Edward A.)

Reco-Rap Company, The, St. Louis, Mo. Transportation packages for talking-machine records. No. 158,149; May 2.

Riverside & Dan River Cotton Mills, Inc., Danville, Va. Chambray and cheviots in the piece. No. 156,342; May 2.

Root, Charles F., New York, N. Y. Lotion for dressing the hair. No. 155,832; May 2.

Rosenfield, Adolph A., trading as N. M. T. A. Mfg. Co., New York, N. Y. Medicinal preparation for the treatment of the gums and teeth. No. 156,807; May 2.

Rothstein, Harris W., trading as H. W. Rothstein & Co., Baltimore, Md. Boys' suits. No. 152,806; May 2.

Rothstein, Harris W., trading as H. W. Rothstein & Co., Baltimore, Md. Men's suits. No. 152,807; May 2.

Rottenberg, Benjamin, trading as Baltic Chemical Co., New York, N. Y. Chemicals, medicines, and pharmaceutical preparations. No. 126,945; May 2.

Rutland Fire Clay Co., Rutland, Vt. Crack filler, stovepipe enamel, asphalt roof paints, etc. No. 154,994; May 2.

Samstag & Hilder Bros., New York, N. Y. Hair nets. No. 156,115; May 2.

Santalucia, Samuel, Waterbury, Conn. Rubber heels. No. 157,694; May 2.

Scheanblum, R., New York, N. Y. Hair nets. No. 156,765; May 2.

Scher, Morris M., Baltimore, Md. Serge in the piece. No. 157,239; May 2.

Schiller, Louis, Philadelphia, Pa. Neckties and scarfs. No. 153,057; May 2.

Schmukler, S., & Son, Philadelphia, Pa. Electrical switches, inclosed electrical switches, ground clamps, outlet boxes, and covers, etc. No. 157,904; May 2.

Schwartz, S. Robert, & Bro., New York, N. Y. Therapeutic lamps. No. 156,549; May 2.

Schwob, Adolphe, Inc., New York, N. Y. Watches and watch movements, dials, and cases. No. 145,860; May 2.

Scott, Lester E., trading as L. E. Scott Co., Southington, Conn. Furniture polish. No. 154,935; May 2.

Selger, M., & Son, New York, N. Y. Finger rings. No. 155,372; May 2.

Sexton, John, and Company, Chicago, Ill. Paints, ready-mixed paint enamels, varnishes, wood filler, etc. No. 158,099; May 2.

Shapleigh, Blasdel, trading as Blasdel Products Co., St. Louis, Mo. Electric spark energizer. No. 158,338; May 2.

Shenk, John B., Philadelphia, Pa. Tooth wash, hair tonic, cough medicine, etc. No. 136,437; May 2.

Simmons Hardware Company, St. Louis, Mo. Storage batteries. No. 156,811; May 2.

Sitroux Importing Company, Inc., New York, N. Y. Hair nets. No. 155,786; May 2.

Societe La France Toilet Goods Co., Inc., New York, N. Y. Toilet preparations for skin treatment. No. 156,024; May 2.

Sonneborn, Henry, & Co. Inc., Baltimore, Md. Men's and boys' hats and caps. No. 152,724; May 2.

Standard Oil Company, San Francisco, Calif. Axle and other greases, lubricating and other oils, etc. No. 139,682; May 2.

Standard Oil Company, (Incorporated in New Jersey), Bayonne, N. J. Greases, oils, etc. No. 158,264; May 2.

Ste. Ame. des Industries Chimiques Wilsele-Louvain, Wilsele-lez-Louvain, Belgium. Chemicals and paints, more particularly lithopone, permanent zinc paint. No. 159,000; May 2.

Stearn Company, The, New York, N. Y. Polishing cream for pipes used in smoking tobacco. No. 155,534; May 2.

Stein, A., & Company, Chicago, Ill. Baby pants. No. 148,622; May 2.

Stein, A., & Company, Chicago, Ill. Sanitary aprons and belts. No. 157,698; May 2.

Stevenson, W. N., & Co., Inc., New York, N. Y. Umbrellas and parasols. No. 161,388; May 2.

Strathmore Paper Company, West Springfield, Mass. Writing, typewriting, and other paper cardboard, bristol board, etc. No. 159,328; May 2.

Sun Chemical & Color Company, Wilmington, Del., and Harrison, N. J. Dry paints. No. 156,112; May 2.

Sundmacher, Charles T., Brooklyn, N. Y. Finger-nail buffers. No. 156,507; May 2.

Sunny Line Appliances, Inc., Detroit, Mich. Laundry washing machines. No. 144,108; May 2.

Szabo, Alex, Perth Amboy, N. J. Horseshoeing apparatus. No. 155,279; May 2.

Thompson, Alice, San Francisco, Calif. Face bleach, building astringent, powder used as a foot ease, etc. No. 156,118; May 2.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Thompson, F. A., & Company, Detroit, Mich. Medicine for kidney, liver, bladder, rheumatism, and uric-acid troubles. No. 156,935; May 2.

Tomson, P. C., & Co., Philadelphia, Pa. Chlorinated lime. No. 156,555; May 2.

Tomson, P. C., & Co., Philadelphia, Pa. Lye. No. 156,553; May 2.

Traf-O-Lite Manufacturing Company, and also trading as The Automobile Device Co., Cleveland, Ohio. Electric stop and direction signals for automobiles. No. 155,071; May 2.

Treo Company, Inc., New York, N. Y. Elastic corset. Nos. 157,339–42; May 2.

Uncas Manufacturing Co., Providence, R. I. Finger rings. No. 158,269; May 2.

Union Oil Company of California, Los Angeles, Calif. Road oils. No. 154,339; May 2.

United Auto Electric Service, Inc., Newark, N. J. Electrical apparatus, machines, and supplies. No. 157,345; May 2.

United Service Distributors. (See Kappus, John M.)

United States Dental Manufacturing Co., The, Cleveland, Ohio. Dental tools. No. 144,007; May 2.

United States Dental Manufacturing Co., The, Cleveland, Ohio. Dental tools. No. 145,245; May 2.

Vlach, Emil V., New York, N. Y. Salve for boils, cuts, wounds, etc. No. 155,648; May 2.

Wadhams Oil Company, Milwaukee, Wis. Lubricating oils. No. 155,579; May 2.

Walker Knitting Mills, Inc., New York, N. Y. Silk, cotton, and woolen piece goods and a combination thereof. No. 158,105; May 2.

Weyand, Charles E., & Co., Inc., New York, N. Y. Writing paper and envelopes. No. 154,291; May 2.

White-Washburne Company, Inc., Hinsdale, N. H. Toilet paper. No. 158,502; May 2.

Wightman & Hough Company, Providence, R. I. Belt, shoe, and clothing buckles made of precious metal. No. 155,724; May 2.

Wilcox, M. I., Company, The, Toledo, Ohio. Dry, ready-mixed, and paste paints and varnishes and putty. No. 157,197; May 2.

Williams, C. K. & Co., Easton, Pa. Dry colors and fillers. No. 155,074; May 2.

Winterbottom Book Cloth Company Limited, The, Manchester, England. Tracing cloth. No. 158,351; May 2.

Wisconsin Parts Company, Oshkosh, Wis. Axles. No. 126,202; May 2.

Wercester Salt Co., New York and Silver Springs, N. Y., and Ecorse, Mich. Salt. No. 155,723; May 2.

Ziegler, Gustav F., trading as The Climax Polish Company, St. Louis, Mo. Liquid cleanser and polish for pianos, automobiles, etc. No. 148,102; May 2.

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED ON THE 2D DAY OF MAY, 1922.

NOTE.—Arranged in accordance with the first significant character or word of the name. (In accordance with city and telephone directory practice.)

Abrasive coated sheet and making same. F. J. Tone. No. 1,414,447; May 2.
Acid, Making hydrochloric. C. P. Townsend. No. 1,414,762; May 2.
Acids; Producing chemical compounds from acetylene and hydrohalogenic. W. Bauer. No. 1,414,852; May 2.
Acoustic device. G. B. Burch. No. 1,414,801; May 2.
Advertising device. L. F. Webster and R. J. Christianson. No. 1,414,536; May 2.
Aerial vehicle, Cooling device for. P. Jaray. No. 1,414,418; May 2.
Aeroplanes. Automatic pilot for. L. B. Sperry. No. 1,415,003; May 2.
Agricultural implement. J. W. Carter. No. 1,414,931; May 2.
Air-break switch, Pendulum high-voltage. J. K. Ostrander. No. 1,414,892; May 2.
Air separator. R. M. Gay. No. 1,414,636; May 2.
Air spring. F. S. Church. No. 1,414,623; May 2.
Air-operated adapter. W. L. Dixon. No. 1,414,460; May 2.
Anchor. E. J. Meier. No. 1,414,992; May 2.
Angle plate. Adjustable. A. W. Nelson. No. 1,414,970; May 2.
Annealing and other furnace. R. C. Stiefel. No. 1,414,489; May 2.
Annealing device. C. E. Pyle. No. 1,414,789; May 2.
Antimony sulphide, Making precipitated. A. L. Stark. Nos. 1,414,836–7; May 2.
Antiskidding devices, Tread member for. W. H. Grove. No. 1,414,638; May 2.
Arm, back, seat, etc., Upholstered curved. C. C. Meutsch. No. 1,414,828; May 2.
Automobile bumper. L. F. Stafford. No. 1,414,382; May 2.
Automobile combination jack. J. H. Thomas. No. 1,414,903; May 2.
Automobile fender. C. L. Batchelor. No. 1,414,930; May 2.
Automobile lock. G. R. McKeage. No. 1,414,991; May 2.
Automobile signal. W. Cline. No. 1,414,981; May 2.
Automobile signal. J. B. Eger. No. 1,414,346; May 2.
Automobile time indicator. R. Watson. No. 1,415,004; May 2.
Automobile windshield fitting. H. S. Cox. No. 1,414,626; May 2.
Automobiles, Door-closure for the top portions of. R. C. Rupp. No. 1,414,585; May 2.
Automobiles, Gear lock for. C. G. Trosien. No. 1,414,716; May 2.
Automobiles, Pedal lock for. F. Woollard. No. 1,414,390; May 2.
Automobiles, Theft detector for. J. J. Michalski. No. 1,414,521; May 2.
Automobiles, Tractor attachment for. L. B. Denton. No. 1,414,938; May 2.
Auto towing and steering appliance. C. W. Davis. No. 1,414,552; May 2.
Auto wheel attachment. W. Greenslade. No. 1,414,735; May 2.
Axle journal box. N. D. Levin. No. 1,414,782; May 2.
Bag: *See*—
Golf bag. Hand bag.
Bag holder. T. McCart. No. 1,414,575; May 2.
Baking. F. T. Snyder. No. 1,414,439; May 2.
Band, Adjustable. K. E. Englund. No. 1,414,731; May 2.
Banker's protecting stand. D. Gudeman. No. 1,414,568; May 2.
Bath chair, Infant's. F. J. Reilly. No. 1,414,897; May 2.
Bathtub installation. E. L. Seither. No. 1,414,792; May 2.
Battery: *See*—
Storage battery.
Battery plate. W. Roberts. No. 1,414,710; May 2.
Bearing, Roller. A. H. Jones and M. G. Anton. No. 1,414,473; May 2.
Bearing, Thrust. H. F. Schmidt. No. 1,414,711; May 2.
Bed, Folding. L. Rothfeld. No. 1,414,833; May 2.
Bed, Sheet-metal. F. P. Williams. No. 1,414,765; May 2.
Bedspring. H. W. Huntress. No. 1,414,471; May 2.
Bee escape, 4-way. K. Hawkins. No. 1,414,696; May 2.
Beehive. L. Bamberger. No. 1,414,393; May 2.
Beet and potato digger and elevator. S. J. Wilson. No. 1,414,538; May 2.
Belt adjuster, Heavy-duty. N. J. McCay. No. 1,414,428; May 2.
Belt, Chain. C. G. Dean. No. 1,414,591; May 2.
Belt clasp. J. F. Killion. No. 1,414,816; May 2.
Bending machine. F. C. Crowe. No. 1,414,340; May 2.
Beverage, Cereal and fruit. C. Ellis. No. 1,414,557; May 2.
Blank-dressing machine, Automatic. R. M. Heames. No. 1,414,642; May 2.
Boat, Fishing. A. Madörin. No. 1,414,429; May 2.
Boiler and furnace grate. M. L. Foote and W. M. Kingsbury. No. 1,414,732; May 2.
Bolt, Convertible. D. G. Carter. No. 1,414,979; May 2.
Bolting machine. A. Wolf. No. 1,414,851; May 2.
Boom adjuster. B. O. Nelson. No. 1,414,890; May 2.
Bottle cap. C. C. Parker. No. 1,414,705; May 2.
Bottle closure; J. W. Dudley. No. 1,414,867; May 2.
Bottle lock, Sanitary milk-. J. J. Ruediger. No. 1,414,584; May 2.
Bottles, Nipple for nursing. A. C. Thorbjornson. No. 1,414,904; May 2.
Bottles, Sanitary closure for. C. W. Borgner. (Reissue.) No. 15,346; May 2.
Box: *See*—
Axle journal box. Tool box.
Paper-display box. Vanity box.
Box-blank-scoring machine. J. F. Cleary. No. 1,414,549; May 2.
Brake: *See*—
Vehicle brake.
Brake lining and making same. S. Simpson. No. 1,414,378; May 2.
Brake-beam fulcrums, Making. E. R. Viberg. No. 1,414,607; May 2.
Breech mechanism. D. F. Asbury. No. 1,414,975; May 2.
Brick-hacking machine. W. H. Allen. No. 1,414,998; May 2.
Brush, Rotary. S. Huff. No. 1,414,781; May 2.
Bucket elevator. W. W. Hudson. No. 1,414,810; May 2.
Buckle, Belt or other. P. A. Horras. No. 1,414,697; May 2.
Building tile. H. R. Straight. No. 1,414,444; May 2.
Burner: *See*—
Fuel burner. Oil burner.
Butter-cutting machine. C. F. Miller. No. 1,414,994; May 2.
Button, Collar. S. Blacher. No. 1,414,617; May 2.
Cabinet, Double-ended filing. A. S. Ede. No. 1,414,505; May 2.
Cabinet, Towel. G. A. Steiner. No. 1,414,443; May 2.
Cabinets, Door structure for display. J. Voss. No. 1,414,843; May 2.
Cakes or blocks, such as caramels, etc., Machine or apparatus for wrapping. H. Rose. No. 1,414,831; May 2.
Calculating machine. H. Enders. No. 1,414,729; May 2.
Calculating machines, Digit wheel for. H. Enders. No. 1,414,730; May 2.
Calculating machine. F. A. Hart. No. 1,414,639; May 2.
Calling devices, Adapter for. H. W. Pugh. No. 1,414,373; May 2.
Candy-pulling machine. R. Lopez. No. 1,414,743; May 2.
Canopy. W. H. Beehler. No. 1,414,616; May 2.
Cap. I. K. Trau. No. 1,414,797; May 2.
Carbon for pigmental and other purposes, Manufacture of. J. Nelson. No. 1,414,482; May 2.
Carburetor. J. J. Cox and R. Wendelken. No. 1,414,935; May 2.
Car-door opener, Automatic mine-. F. Szemanske. No. 1,414,760; May 2.
Cars or similar vehicles, Life guard for street. F. N. Root. No. 1,414,435; May 2.
Car truck, Railway. G. A. Boyden, Jr., and J. C. Boyden. No. 1,414,497; May 2.
Carrier: *See*—
Collapsible carrier. Stereopticon-slide carrier.
Case: *See*—
Packing case. Sewing-machine bobbin case.
Pocket case.
Centrifugal apparatus. E. Roberts. No. 1,414,526; May 2.
Centrifugal extractor. S. Prestwich. No. 1,414,525; May 2.
Chain anchor, Antiskid. C. S. Weimar. No. 1,414,846; May 2.
Chain, Bead. C. P. Kuehner. No. 1,414,821; May 2.

Chain, Conveyer. C. J. Lawson. No. 1,414,424; May 2.
Chair: *See*—
Infant's bath chair.
Chair and seat, Reclining adjustable. A. E. Gell. No. 1,414,637; May 2.
Chairs, Tablette for. B. W. Blauert. No. 1,414,452; May 2.
Chocolate-candy cooler. S. Dempsey. No. 1,414,553; May 2.
Chuck and making same, Magnetic. R. L. Morgan. No. 1,414,522; May 2.
Circuit breaker. B. M. Mooers and L. E. Warner. No. 1,414,659; May 2.
Circuit controller, Ignition-. G. H. Whittingham. Nos. 1,414,912–13; May 2.
Clamp: *See*—
Self-adjusting guard-rail clamp.
Tire-boot clamp.
Tooth cervical clamp.
Clamp. W. A. Starck. No. 1,414,756; May 2.
Clamping device. A. L. Harvey. No. 1,414,407; May 2.
Clasp: *See*—
Belt clasp.
Cleaner: *See*—
Flue cleaner.
Sanitary tooth cleaner.
Vacuum cleaner.
Windshield cleaner.
Clip: *See*—
Trousers clip.
Clothesline attachment. S. and J. Stapienski. No. 1,414,794; May 2.
Clutch member, Friction-. G. D. Tresslar. No. 1,414,490; May 2.
Clutch lock. S. B. Livingston. No. 1,414,884; May 2.
Coal and other material, Destructive distillation of. P. Farup. No. 1,414,401; May 2.
Coal-cutting machine. A. Russell. No. 1,414,586; May 2.
Coin holder. R. Wallenstein. No. 1,414,845; May 2.
Coil retainer. F. C. Coseo. No. 1,414,773; May 2.
Coil-winding machine. E. T. Turney. No. 1,414,679; May 2.
Collapsible carrier. R. T. Van Valkenburg. No. 1,414,535; May 2.
Combustion chamber. J. Hicks. No. 1,414,360; May 2.
Computing exposure meter. T. M. Aiken. No. 1,414,972; May 2.
Computing machine. R. W. Bumstead. No. 1,414,978; May 2.
Computing machine. L. E. Giles. No. 1,414,355; May 2.
Computing machine. W. E. Royster, Jr., and K. B. Royster. No. 1,414,436; May 2.
Concrete construction for piers, bulkheads, seawalks, and dry docks, Reenforced. A. Brownlee. No. 1,414,620; May 2.
Concrete-mixing machine. G. Jaeger. No. 1,414,648; May 2.
Condensers, Means for increasing the dielectric strength of. W. C. Brinton, Jr. No. 1,414,619; May 2.
Confection making, Process and apparatus for. R. S. Scott. No. 1,414,528; May 2.
Container. H. L. Carpenter. No. 1,414,861; May 2.
Container. A van Rensselaer. (Reissue.) No. 15,347; May 2.
Container, Portable. W. L. Affelder. No. 1,414,392; May 2.
Control apparatus. P. L. Mardis. No. 1,414,431; May 2.
Control system. A. A. Gazda. No. 1,414,403; May 2.
Controlling mechanism. L. A. Lang. No. 1,414,654; May 2.
Conveying apparatus. B. C. Skinner. No. 1,414,674; May 2.
Cooking apparatus. C. H. Sherman and F. E. Morris. No. 1,414,713; May 2.
Cooking utensils, Device for supporting. F. W. Cantleberry. No. 1,414,771; May 2.
Cooler: *See*—
Chocolate-candy cooler.
Corn implement, Green-. W. Olcott. No. 1,414,372; May 2.
Copy-holding device. A. N. Woodruff. No. 1,414,389; May 2.
Counting mechanism. C. A. Baldwin. No. 1,414,685; May 2.
Couplings, Release rigging for. H. A. Vahe. No. 1,414,606; May 2.
Crate, Collapsible metal. J. A. Hazen. No. 1,414,948; May 2.
Crayon. E. T. Hurley. No. 1,414,570; May 2.
Crusher. A. F. Williams. No. 1,414,799; May 2.
Crystals, Making piezo-electrical. A. M. Nicolson. No. 1,414,370; May 2.
Cuff link. I. S. Kaufman. No. 1,414,572; May 2.
Cultivator. T. M. Hughes. No. 1,414,880; May 2.
Cultivator for treating the soil. C. Köszegi. No. 1,414,364; May 2.
Cultivators, Seeder attachment for. W. L. Peterson. No. 1,414,580; May 2.
Current circuits, Regulating system for alternating-. W. B. Kirke. No. 1,414,652; May 2.
Curtain-window construction. B. J. Hubbard. No. 1,414,470; May 2.
Cushion-making machine. C. C. Meutsch. No. 1,414,825; May 2.
Cutlery. H. J. Zinn. No. 1,414,997; May 2.
Cutter-head mechanism. J. B. Ettinger. No. 1,414,633; May 2.
Dental flask. J. A. and D. S. Gardner. No. 1,414,566; May 2.
Di-alkyl-amino-ethyl derivatives of theobromine, Preparation of the. J. Altwegg. No. 1,414,333; May 2.
Die: *See*—
Thread-rolling die.
Dishwasher. G. W. Backus. No. 1,414,928; May 2.
Dishwashing machine. J. Fassio. No. 1,414,634; May 2.
Disk wheel. A. L. Putnam. No. 1,414,375; May 2.
Dispensing apparatus. W. J. Else. No. 1,414,777; May 2.
Display stand, Necktie-. R. C. Smith. No. 1,414,902; May 2.
Distillation process. H. A. Hills. No. 1,414,465; May 2.
Doll head. W. H. Mitchell. No. 1,414,968; May 2.
Doll's head with movable eyes. M. H. Slater. No. 1,414,901; May 2.
Door check and closer. C. W. Parker. No. 1,414,996; May 2.
Door, Dumb-waiter. B. Wexler. No. 1,414,387; May 2.
Door lock. S. S. Colavita. No. 1,414,862; May 2.
Doors and the like, Hinge joint for faceplate. G. B. Thomas. No. 1,414,841; May 2.
Double-throw switch. L. F. Kries. No. 1,414,421; May 2.
Draft controller, Electric. F. D. Windell. No. 1,414,448; May 2.
Drier: *See*—
Rotary drier.
Drier, Rotary. L. O. Withun. No. 1,414,766; May 2.
Drill jig. L. Fine. No. 1,414,635; May 2.
Drill pipe-slip, Rotary. C. C. Hosmer and C. H. Wines. No. 1,414,951; May 2.
Drill-table mechanism. W. T. Sears. No. 1,414,487; May 2.
Drilling machine. W. T. Sears and G. W. Jager. No. 1,414,486; May 2.
Drying machine. T. Allsop and W. W. Sibson. No. 1,414,973; May 2.
Eaves-trough hanger. H. Elftink. No. 1,414,345; May 2.
Electric furnace. A. Jones. No. 1,414,362; May 2.
Electric lifting jack. J. A. Anglada. No. 1,414,683; May 2.
Electric supply mains, Junction box for. A. Graf. No. 1,414,874; May 2.
Electrical switch. C. H. Hodgkins. No. 1,414,413; May 2.
Electrical vacuum discharge device. E. W. Kelly. No. 1,414,741; May 2.
Electrically welding galvanized metal sheets or parts. J. Ledwinka. No. 1,414,822; May 2.
Electromagnetic lock-out switch. R. P. Bossom. No. 1,414,453; May 2.
Electropneumatic brake and signal system. J. B. Grosswege. No. 1,414,736; May 2.
Elevator: *See*—
Bucket elevator.
Sucker-rod elevator.
Engine: *See*—
Hydrocarbon engine.
Internal-combustion engine.
Rotary engine.
Engine. C. N. Teetor. No. 1,414,796; May 2.
Engines, Air filter for internal-combustion. A. Milburn. No. 1,414,993; May 2.
Engines, Cooling system for internal-combustion. J. V. Giesler. No. 1,414,780; May 2.
Engines, Electric-motor-starting device for internal-combustion. F. Kratz. No. 1,414,653; May 2.
Engines, Lubrication of internal-combustion. C. P. Hollister. No. 1,414,644; May 2.
Engines, Means for indicating stopping, idling, and working times of automobile. R. Watson. No. 1,414,910; May 2.
Engines, Switch for controlling ignition and starting circuits in explosive. G. Giovannoni. No. 1,414,734; May 2.
Engines, Valve for internal-combustion and other. P. F. Daniel. No. 1,414,341; May 2.
Engines, Vulcanizing attachment for internal-combustion. J. M. Stucker and W. J. Kamerer. No. 1,414,445; May 2.
Excavating machine. D. A. Rossi and F. Reynolds. No. 1,414,832; May 2.
Explosion engine working under injection of liquid fuel. E. H. Tartrais. No. 1,414,384; May 2.
Extractor: *See*—
Centrifugal extractor.
Continuous extractor.
Extractor, Continuous. L. T. Murphy. No. 1,414,703; May 2.
Eye tester. H. E. Myers. No. 1,414,888; May 2.
Fabrics, Machine for inspecting and cutting. S. Kislevitz. No. 1,414,818; May 2.
Farm gate. A. H. Crissey. No. 1,414,863; May 2.
Feeding cupped articles, Attachment for. B. and S. Nagy. No. 1,414,786; May 2.
Fender: *See*—
Automobile fender.
Fiber-separating device. J. C. Garner. Nos. 1,414,508–9; May 2.
File or rack, Appointment. Z. Auerbach. No. 1,414,721; May 2.
File or registrator, Letter. O. Stavenhagen. No. 1,414,757; May 2.
File or register, Letter. O. Stavenhagen. No. 1,414,758; May 2.
Films, Method of and apparatus for developing. G. C. Beidler. No. 1,414,769; May 2.
Fireproof, Method and composition for rendering materials. F. C. Wheeler. No. 1,414,609; May 2.
Float gauge. O. H. Avers. No. 1,414,927; May 2.

Flue cleaner. A. W. Terrell. No. 1,414,840; May 2.
Flue cleaner. H. D. Gill. No. 1,414,943; May 2.
Food product. H. Mock. No. 1,414,576; May 2.
Food product. J. Starrels. No. 1,414,675; May 2.
Frame: *See*—
Pedestal truck side frame. Vehicle window frame.
Friction facing. F. C. Stanley. No. 1,414,383; May 2.
Fruit-drying tray. W. H. Jones. No. 1,414,649; May 2.
Fruit snow flaker. J. B. Ingram. No. 1,414,953; May 2.
Fruits, Machine for removing the stalks from. P. O. Navarre. No. 1,414,889; May 2.
Fuel burner. A. W. Smith and G. A. Collins. No. 1,414,438; May 2.
Fuel-feeding mechanism. C. F. Miller and R. M. Allen. No. 1,414,746; May 2.
Fuel, Hopper for use in feeding finely-divided. J. Fisher. No. 1,414,870; May 2.
Fuel, Motor. E. W. Stevens. No. 1,414,759; May 2.
Full-stroke mechanism, Frictionally-operated. H. Enders. No. 1,414,728; May 2.
Fume-control device. V. K. Boynton. No. 1,414,722; May 2.
Furnace: *See*—
Electric furnace. Muffle furnace.
Hot-air furnace.
Furnaces, Apparatus for controlling the draft on. J. W. Drake. No. 1,414,631; May 2.
Fuse plug. H. N. Davis. No. 1,414,864; May 2.
Fuse, Renewable. W. A. Brunelle. No. 1,414,977; May 2.
Game, Educational. J. R. Williams. No. 1,414,849; May 2.
Games, Appliance for playing race. W. J. Parsons. No. 1,414,788; May 2.
Garment. H. Fels. No. 1,414,349; May 2.
Garment marker. A. Herd. No. 1,414,643; May 2.
Garment support. W. H. Brasher. No. 1,414,336; May 2.
Garment supporter. H. W. Lakin. No. 1,414,476; May 2.
Gas-heat retainer and flame cleanser. E. G. Neuschwanger. No. 1,414,664; May 2.
Gases, Filling high-pressure vessels with liquefiable. P. Heylandt. No. 1,414,359; May 2.
Gasoline-feed system. E. R. Huntley. No. 1,414,952; May 2.
Gasoline meter. R. Lossing. No. 1,414,964; May 2.
Gate: *See*—
Farm gate.
Gauge: *See*—
Absolute-pressure gauge. Float gauge.
Adjustable limit gauge.
Gears, Apparatus for the control of variable-speed. C. ter Cock. No. 1,414,933; May 2.
Generator and motor support. A. N. Sammarone. No. 1,414,900; May 2.
Glass. W. C. Taylor. No. 1,414,715; May 2.
Glass-handling apparatus. E. G. Chase. No. 1,414,547; May 2.
Glass to molds, Apparatus for feeding. E. T. Ferngren. No. 1,414,561; May 2.
Globes and reflectors for indirect and concentrated lighting, Suspension device for. O. P. Cramer. No. 1,414,627; May 2.
Golf bag. R. F. Hanaford. No. 1,414,875; May 2.
Graphophone. L. Roberto. No. 1,414,898; May 2.
Grater. B. F. and G. P. Mertz. No. 1,414,657; May 2.
Grinding machine, Cylinder-. G. R. Ward. No. 1,414,386; May 2.
Grommets, Apparatus for making. A. C. Pratt. No. 1,414,828; May 2.
Gun. F. B. Sutliff. No. 1,414,714; May 2.
Halogen derivatives of indigo and its homologues, Obtaining. M. Bouvier. No. 1,414,335; May 2.
Hammock. H. Mintz. No. 1,414,433; May 2.
Hammock, Couch. H. Mintz. No. 1,414,432; May 2.
Hand-picking table. A. R. Stephen. No. 1,414,598; May 2.
Hand bag. J. O. Doersching. No. 1,414,866; May 2.
Handle: *See*—
Saw handle.
Hanger: *See*—
Eaves-trough hanger. Sucker-rod hanger.
Spring hanger.
Harrow, Packer and circular. O. Voelker. No. 1,414,842; May 2.
Headlight-focusing device. C. E. Godley. No. 1,414,567; May 2.
Headwear. L. H. Ensten. No. 1,414,558; May 2.
Heat treating metallic articles, Method of and apparatus for. H. P. Macdonald. No. 1,414,366; May 2.
Heater: *See*—
Electric water heater. Water heater.
Heel, Shoe. H. E. Boswell. No. 1,414,545; May 2.
Helicopter. W. Haupt. No. 1,414,410; May 2.
Hides and hide-treating apparatus, Treating. C. J. Glasel. No. 1,414,404; May 2.
Hoist, Dump. C. Losch. No. 1,414,426; May 2.
Hoisting drum. J. R. Suman and A. R. Gamble. No. 1,414,795; May 2.
Hose holder. D. Souter. No. 1,414,834; May 2.
Hot-air furnace. C. A. Beggs. No. 1,414,395; May 2.
Hot-water-motor appliance. C. C. Rumery and F. G. Spates. No. 1,414,751; May 2.
Hotbed border. F. F. Sklenka. No. 1,414,593; May 2.
Humidifier and palette attachment, Combined. E. Bruck. No. 1,414,338; May 2.
Humidor. J. V. Sprague. No. 1,414,381; May 2.
Hydrocarbon engine. G. Loeffler and M. J. Cohen. No. 1,414,987; May 2.
Ice-cream freezer. W. S. Edmands. No. 1,414,727; May 2.
Ignition apparatus, Driving attachment for. W. E. Schwarzmann and C. H. Alvord. No. 1,414,753; May 2.
Impregnating material, Method of and apparatus for. L. L. Frederick. No. 1,414,462; May 2.
Incubator. L. A. Brown. No. 1,414,858; May 2.
Index, Rotary. E. R. Smith. No. 1,414,754; May 2.
Indicator: *See*—
Automobile time indicator. Railway station indicator.
Pressure indicator. Station indicator.
Ingots, Apparatus for casting. G. Beatty. No. 1,414,394; May 2.
Internal-combustion engine. L. T. Godfrey-Evans. No. 1,414,356; May 2.
Jack: *See*—
Automobile combination jack. Pneumatic lifting jack.
Electric lifting jack. Power jack.
Pump jack.
Joint: *See*—
Rail joint. Universal joint.
Kaleidoscope. H. E. House. No. 1,414,469; May 2.
Knitting machines, Automatic stop for. J. G. Carlson. No. 1,414,546; May 2.
Knotters, Knives for self-binder. M. M. Arndt. No. 1,414,684; May 2.
Knurling tool. F. A. Reed. No. 1,414,668; May 2.
Label. T. A. Reilly. No. 1,414,830; May 2.
Laces, Metal tip for shoe. R. M. Mikesell. No. 1,414,701; May 2.
Ladder attachment. C. M. Perrier. No. 1,414,893; May 2.
Laminated body, Composite. W. H. Kempton. No. 1,414,420; May 2.
Lamp. N. Macneale. No. 1,414,518; May 2.
Lamp-cock guard. C. W. Trulock. No. 1,414,906; May 2.
Lamps, Match-scratching attachment for. E. A. Miller. No. 1,414,995; May 2.
Lamp, Vapor. C. A. Hoff and J. C. Steese. No. 1,414,466; May 2.
Lantern. G. Humber. No. 1,414,414; May 2.
Lantern, Electric. G. Humber. No. 1,414,415; May 2.
Lathe turning tool. T. O. Martin. No. 1,414,520; May 2.
Lathes, Centering gauge for. E. Novitzky. No. 1,414,483; May 2.
Lathes, Thread-milling attachment for. J. R. Beckett. No. 1,414,853; May 2.
Lens, Projection. W. H. Repp. No. 1,415,002; May 2.
License plate holder and reflector, Illuminated. C. Clements, J. W. Swart, and C. E. Nutbrown. No. 1,414,772; May 2.
Lifter: *See*—
Sash lifter. Plunger lifter.
Limit gauge, Adjustable. L. E. Olsen. No. 1,414,434; May 2.
Limit gauge, Adjustable. L. E. Olsen. No. 1,414,484; May 2.
Link mesh, Machine for making. A. C. Pratt. No. 1,414,829; May 2.
Lithopone, Manufacture of. J. A. Singmaster and F. G. Breyer. No. 1,414,793; May 2.
Lock: *See*—
Automobile lock. Pin-tumbler lock.
Clutch lock. Sanitary milk-bottle lock.
Door lock.
Lock bolt and nut. G. H. Thamann. No. 1,414,761; May 2.
Locomotive driving boxes, Lateral-motion appliance for. A. W. Bruce. Nos. 1,414,455–6; May 2.
Locomotives and tenders, Vestibule for. F. J. Cole. No. 1,414,459; May 2.
Looms, Let-off mechanism for. R. Glaser. No. 1,414,873; May 2.
Looms, Whip roll for. W. B. Williams. No. 1,414,850; May 2.
Lubricating apparatus. R. Wood. No. 1,414,610; May 2.
Lubricating system. B. H. Skelly. No. 1,414,592; May 2.
Match packet for advertising purposes. A. W. Graham. No. 1,414,945; May 2.
Match packet or carton. A. W. Graham. No. 1,414,946; May 2.
Matches, Side head construction for. C. W. H. Blood and C. G. Osteman. No. 1,414,618; May 2.
Measuring device. F. W. Hutchins. No. 1,414,571; May 2.
Measuring, indicating, and recording the flow of fluid, Apparatus for. P. H. Wilson. No. 1,414,388; May 2.
Meat and other alimentary substances, Apparatus for the preservation of. L. F. Bullôt. No. 1,414,859; May 2.
Meat, Apparatus for smoking and curing. T. G. Crane. No. 1,414,504; May 2.
Mechanical movement. H. Egli. No. 1,414,461; May 2.
Metal bars or rods, Power machine for bending. M. H. McKenna. No. 1,414,744; May 2.
Metal blanks, Method and apparatus for shaping hot-. W. H. Morgan. No. 1,414,660; May 2.
Metal-drawing apparatus. L. H. Brinkman. No. 1,414,500; May 2.
Metal shapes, Method and apparatus for perforating. E. S. Seavey. No. 1,414,589; May 2.
Metal wheel, Cast-. W. H. Morgan. Nos. 1,414,661–3; May 2.

Metals, Electrolytic separation of. C. Langer. No. 1,414,423; May 2.
Meter: *See*—
Computing exposure meter. Time meter.
Gasoline meter. V-notch liquid meter.
Micrometer caliper. J. P. Cluley. No. 1,414,550; May 2.
Mill: *See*—
Rod mill.
Mill. H. P. Taylor. Nos. 1,414,602–3; May 2.
Milling machine, Drum-type continuous. J. R. Johnson. No. 1,414,812; May 2.
Mineral sampler. G. R. Delamater. No. 1,414,726; May 2.
Mining apparatus. E. L. Hopkins. No. 1,414,877; May 2.
Mold: *See*—
Printer's strip-material mold.
Molding and flask part therefor. D. C. Mulvihill. No. 1,414,702; May 2.
Motion, Method and apparatus for converting. H. H. Platt. No. 1,414,895; May 2.
Motor-control system. A. L. Harvey. Nos. 1,414,408–9; May 2.
Motor-control system. E. S. Lammers, Jr. No. 1,414,422; May 2.
Motor road and other vehicles, Wheel for. C. S. H. Snow. No. 1,414,594; May 2.
Motors, Controller for synchronous. E. W. Seeger. No. 1,414,791; May 2.
Muffle furnace. J. R. C. August. No. 1,414,614; May 2.
Navigating the air, Machine for. S. P. Nemeth. No. 1,414,577; May 2.
Necktie former and holder. B. R. Skinner. No. 1,414,529; May 2.
Necktie holder and collar button, Combination. H. L. Hill. No. 1,414,412; May 2.
Nuts, Means for making castellated. F. O. Jaques, Jr. No. 1,414,417; May 2.
Oil burner. W. H. Davidson. No. 1,414,725; May 2.
Oil from submarine tanks, Apparatus for preventing escape of. G. Bauer and F. Kramer. No. 1,414,615; May 2.
Oil presses, Press mat for. C. H. Fulson. No. 1,414,693; May 2.
Oil-salvaging means. D. Aspinall. No. 1,414,611; May 2.
Oils, Conversion of hydrocarbon. V. L. Emerson. No. 1,414,400; May 2.
Oils, Producing lubricating. G. D. Harper. No. 1,414,695; May 2.
Open-hearth-furnace device. A. Arthur. No. 1,414,451; May 2.
Oven, Baker's. W. Ziensen. No. 1,414,717; May 2.
Ovens, Collecting main for by-product coke. W. H. Pavitt, Jr. No. 1,414,524; May 2.
Package-handling and label-preparing mechanism. J. C. Thom. No. 1,414,678; May 2.
Package tie. W. H. Duvarney. No. 1,414,868; May 2.
Package tie. C. O. Stockman. No. 1,414,599; May 2.
Packaging. J. Peterson. No. 1,414,706; May 2.
Packet or carton. A. W. Graham. No. 1,414,944; May 2.
Packing case. H. H. Read. No. 1,414,896; May 2.
Paint composition. J. F. Steenmeyer. No. 1,414,597; May 2.
Panel board and panel-board construction. H. F. Starrett. Nos. 1,414,676–7; May 2.
Pans, etc., from one conveyer to an oppositely-moving conveyer. P. Rasmussen. No. 1,414,667; May 2.
Paper-display box. G. F. Kelly. No. 1,414,363; May 2.
Patch, Repair. E. J. Forbes. No. 1,414,733; May 2.
Peat product. F. T. Dow. No. 1,414,344; May 2.
Peavy. D. R. Howe. No. 1,414,878; May 2.
Pedal, Foot-control. C. Vogt. No. 1,414,907; May 2.
Pencil, Hard-rubber. J. Salz. No. 1,414,752; May 2.
Phonograph. G. B. Burch. No. 1,414,802; May 2.
Phonograph. G. B. Burch. No. 1,414,804; May 2.
Phonograph attachment. D. C. A. Bosworth. No. 1,414,687; May 2.
Phonograph cabinet. A. A. Singler. No. 1,414,379; May 2.
Phonograph reproducer. G. B. Burch. No. 1,414,803; May 2.
Phonograph reproducers, Sound-deadening device for. E. F. Dahlheim and W. S. Hulet. No. 1,414,937; May 2.
Phonographs, Sound modulator for. N. Seaholm. No. 1,414,673; May 2.
Photographic printing machine. J. J. Roth. No. 1,414,582; May 2.
Piano-player action. E. H. Dodds. No. 1,414,342; May 2.
Pianos, Pianissimo device for player-. F. A. Wessell. No. 1,414,680; May 2.
Picture apparatus, Shutter for motion-. C. H. Gill. No. 1,414,942; May 2.
Picture-frame stand. L. Fritz. No. 1,414,351; May 2.
Picture tape-winding mechanism, Motion-. C. H. Gill. No. 1,414,941; May 2.
Pin. C. Taylor. No. 1,414,601; May 2.
Pin-setting mechanism. A. N. Olsen. No. 1,414,787; May 2.
Pin-tumbler lock. M. Falk. No. 1,414,348; May 2.
Pipe cutters, Attachment for. H. W. Loose. No. 1,414,885; May 2.
Pipe joint and producing it. C. S. Babb. No. 1,414,800; May 2.
Piston or compression ring. F. Mueller. No. 1,414,747; May 2.
Plane, Single-blade. H. Anderson. No. 1,414,974; May 2.
Plaster or ointment, Medicinal compound for external use as a. E. P. Kelley. No. 1,414,815; May 2.
Plate-clamp-operating tool. O. Roesen and I. Tornberg. No. 1,414,485; May 2.
Plows, Adjustable sole plate for. M. J. Salas. No. 1,414,587; May 2.
Plunger lifter. F. M. Joslin. No. 1,414,650; May 2.
Pneumatic lifting jack. J. A. Anglada. No. 1,414,718; May 2.
Pocket case. P. H. Welcker. No. 1,414,798; May 2.
Portraits and photographs, Mounting for. J. Marcelino y Diaz. No. 1,414,656; May 2.
Poster, Patch. C. L. Scovil. No. 1,414,588; May 2.
Pot cover. A. P. and C. R. Young. No. 1,414,540; May 2.
Potassium values from fumes, Recovery of. J. Gayley. No. 1,414,353; May 2.
Pottery, Decalcomania and drying machine for. H. Bogaty and J. L. Buckley. No. 1,414,856; May 2.
Power jack. F. D. Hoffman. No. 1,414,876; May 2.
Power-transmission mechanism. L. A. Carter. No. 1,414,622; May 2.
Power-transmission mechanism. J. L. Mays. No. 1,414,479; May 2.
Power-transmitting mechanism, Speed producing. B. B. Phillips. No. 1,414,894; May 2.
Press: *See*—
Printing press.
Press. W. G. Kendall. No. 1,414,881; May 2.
Pressure gauge, Absolute-. C. H. Berry. No. 1,414,854; May 2.
Pressure indicator. C. R. Keeran. No. 1,414,474; May 2.
Printer's strip-material mold. R. Gray. No. 1,414,464; May 2.
Printing press. C. H. Cochrane. No. 1,414,339; May 2.
Printing presses, Attachment for. J. F. Frederick. Nos. 1,414,871–2; May 2.
Printing presses, Rewind device for multiple-process. R. T. Hosking. No. 1,414,809; May 2
Pulp and paper machines, Felt guide for. F. Ford. No. 1,414,940; May 2
Pulp-wood breaker. A. D. Wood, L. Trantham, and E. T. Self. No. 1,414,914; May 2.
Pump, Air. A. Burnam. No. 1,414,621; May 2.
Pump, Air. A. Krehlik. No. 1,414,573; May 2.
Pump, Automatic. C. M. McFarland. No. 1,414,990; May 2.
Pump, Fluid. P. M. Grant. No. 1,414,463; May 2.
Pump jack. O. Cullman. No. 1,414,936; May 2.
Pump, Rotary. E. B. Hoover. No. 1,414,512; May 2.
Pump, Tire. J. T. Fiese. No. 1,414,808; May 2.
Punching machines, Gag-operating attachment for metal-. F. S. Donley and J. Welsh. No. 1,414,555; May 2.
Pyridine from ammonium-sulphate solutions, Recovery of. F. W. Sperr, Jr., and R. L. Brown. No. 1,414,441; May 2.
Rack and cover, Banana. L. C. Schmidt. No. 1,414,712; May 2.
Rack or card, Appointment. Z. Auerbach. No. 1,414,720; May 2.
Radiator core. J. Sorensen. No. 1,414,440; May 2.
Radiators and engines, Heater for automobile. W. E. Wilson. No. 1,414,539; May 2.
Rail clamp, Self-adjusting guard-. C. A. Psilander. No. 1,414,708; May 2.
Rail fastener. E. M. McVicker. No. 1,414,784; May 2.
Rail guard, Switch-. F. C. Anderson. No. 1,414,767; May 2.
Rail joint. J. J. Znak. No. 1,414,450; May 2.
Railway-accident preventer, Automatic. F. Ruby. No. 1,414,376; May 2.
Railway appliance. J. Jones. No. 1,414,814; May 2.
Railway guard rail. F. Lindsay. No. 1,414,477; May 2.
Railway mail crane. W. S. Davidson. No. 1,414,690; May 2.
Railway station indicator. A. Lucyshyn. No. 1,414,700; May 2.
Railway trains or vehicles, Electric control of. A. R. Angus. No. 1,414,999; May 2.
Razor, Safety. P. Iroff. No. 1,414,646; May 2.
Razor, Safety. J. H. Vance. No. 1,414,533; May 2.
Reach. L. B. Doe. No. 1,414,343; May 2.
Reamer, Adjustable. D. R. Gallagher. No. 1,414,565; May 2.
Reamer and burrer. E. A. Midgley. No. 1,414,480; May 2.
Receptacle support. T. W. Watson. No. 1,414,911; May 2.
Receptacles, Closure for. A. G. Hubble. No. 1,414,569; May 2.
Recording and exhibiting device. W. F. Harthun. No. 1,414,406; May 2.
Refrigerator, Automatic continuous. R. E. Schurtz. No. 1,414,527; May 2.
Resilient wheel. F. E. Bessler. No. 1,414,542; May 2.
Retail-box container. A. R. Zautner. No. 1,414,682; May 2.
Rheostat. G. B. Reisbach. No. 1,414,709; May 2.
Ridge-roll finial. M. Albert. No. 1,414,493; May 2.
Rim, Demountable. C. A. Vratil. No. 1,414,844; May 2.
Rims, Tool for handling demountable. R. D. Hughes. No. 1,414,879; May. 2.
Rod mill. F. J. Behneman and H. S. Rexworthy. No. 1,414,768; May 2.
Rods, Device for boring connecting. W. J. Brown. No. 1,414,337; May 2.

Rods, Oiling device for reach. A. B. Breeze. No. 1,415,000; May 2.
Roll. J. Witzig. No. 1,414,449; May 2.
Roller: *See*—
Sliding-door roller.
Rollers, Machine for pressing lines or designs into. R. Laing. No. 1,414,574; May 2.
Roofing material. M. H. Elvidge. No. 1,414,778; May 2.
Roofing tile. A. De Julian. No. 1,414,774; May 2.
Rotary engine. B. F. Augustine. No. 1,414,976; May 2.
Rubber collar. T. Hase. No. 1,414,640; May 2.
Sampler, Automatic. S. E. Cogswell. No. 1,414,805; May 2.
Sash and screen fastener, Storm. J. B. Maynard. No. 1,414,966; May 2.
Sash fastener, Window-. W. A. Snyder. No. 1,414,595; May 2.
Sash lifter. W. Karasiewicz. No. 1,414,698; May 2.
Saw guard. A. C. Prabst and N. E. Holte. No. 1,414,581; May 2.
Saw handle. B. R. Watson. No. 1,414,608; May 2.
Sawmill attachment. J. S. Junkin. No. 1,414,740; May 2.
Scale, Pendulum. S. Wistoft. No. 1,414,764; May 2.
Screw propeller. H. Leitner. No. 1,414,742; May 2.
Searchlight. G. Kleefeld. No. 1,414,985; May 2.
Separator: *See*—
Air separator.
Sewing-machine bobbin case. L. E. Weaver. No. 1,414,763; May 2.
Sewing-machine feeding mechanism. H. Corrall and B. A. Stevens. No. 1,414,625; May 2.
Sewing machines, Feeding mechanism for. D. S. Seymour. No. 1,414,591; May 2.
Ships, Water-tight ventilator for. J. K. Chun Fat. No. 1,414,560; May 2.
Shoveling machine. H. B. Dennis. No. 1,414,398; May 2.
Sign construction, Stationary-. W. B. Fink. No. 1,414,350; May 2.
Signal: *See*—
Automobile signal. Motor-vehicle signal.
Signal-reading ribbons, Stamping machine for. W. Dougall. No. 1,414,939; May 2.
Slack adjuster. W. H. Sauvage. No. 1,414,671; May 2.
Slag, Recovery of metallic values from. H. V. Welch. No. 1,414,491; May 2.
Sleigh, Motor. K. A. Obach. No. 1,414,891; May 2.
Sliding door roller. A. Dowald. No. 1,414,630; May 2.
Snap catch. F. Street. No. 1,414,838; May 2.
Solid or liquid matter from a solution or semisolution containing same, Recovering. A. D. Fest. No. 1,414,562; May 2.
Sound-reproducing machines, Needle holder for. E. C. Kuehl. No. 1,414,517; May 2.
Spark plug. J. G. Dickson. No. 1,414,806; May 2.
Spark timer and oil pump, Combined. J. McClelland. No. 1,414,823; May 2.
Spear. E. Gray. No. 1,414,511; May 2.
Spindle. H. A. Tiffany. No. 1,414,905; May 2.
Spinning machines, Drag device for. F. W. Constantine and T. G. Kay. No. 1,414,688; May 2.
Spinning machines, Stop motion for. N. L. Lawton. No. 1,414,883; May 2.
Spool holder. F. H. Ahl. No. 1,414,971; May 2.
Spring hanger. H. D. Palmer. No. 1,414,748; May 2.
Spring wheel. L. Smierck. No. 1,415,006; May 2.
Stand: *See*—
Banker's protecting stand. X-ray stand.
Picture-frame stand.
Standpipe connection. L. Wilputte. No. 1,414,492; May 2.
Station indicator. S. Mitchell. No. 1,414,369; May 2.
Steam-pressure-regulating mechanism. W. B. Fulton. No. 1,414,506; May 2.
Steering knuckles, Antirattler for. E. J. Gulick. No. 1,414,737; May 2.
Steering wheel and lock therefor. D. C. and E. F. Gossett. No. 1,414,405; May 2.
Steering wheel, Combined tilting and sliding. G. H. Cocks. No. 1,414,458; May 2.
Stereopticon-slide carrier. L. G. Shryock. No. 1,414,488; May 2.
Stock waterer. H. E. Ingvoldstad. No. 1,414,811; May 2.
Storage batteries, Electrolyte indicator for. R. W. Millard and M. A. Michaels. No. 1,414,745; May 2.
Storage battery. R. H. Grant. No. 1,414,510; May 2.
Straight edge, Shingler's. C. J. Dresen. No. 1,414,556; May 2.
Structural element. R. Kemp and F. H. Johnson. No. 1,414,419; May 2.
Sucker-rod elevator. C. M. Marshall. No. 1,414,519; May 2.
Sucker-rod hanger. S. E. Arey, J. J. Hern, and M. S. McFadden. No. 1,414,541; May 2.
Switch: *See*—
Electrical switch. Double-throw switch.
Table: *See*—
Hand-picking table.
Take-up. G. S. Gatchell. No. 1,414,352; May 2.
Taking photographic measurements. G. Moe. No. 1,414,481; May 2.
Talking machine, Automatic. J. Gabel. Nos. 1,414,563–4; May 2.
Talking machines, Repeating attachment for. E. G. Clements. No. 1,414,980; May 2.
Telemeter, Horizontal. F. Riedinger. No. 1,414,790; May 2.
Telemeter system. O. Eppenstein. No. 1,414,779; May 2.
Telephone systems, Call indicator for automatic. J. G. Blessing. No. 1,414,686; May 2.
Telephone systems, Special-service trunk for automatic. T. G. Martin. No. 1,415,001; May 2.
Telephone transmitter. L. Steinberger. No. 1,414,442; May 2.
Temperature-regulating device. L. Reichold. No. 1,414,669; May 2.
Tensioning device. C. F. Pease. No. 1,414,579; May 2.
Testing apparatus. F. H. Best. No. 1,414,397; May 2.
Testing device. T. D. Lynch. No. 1,414,427; May 2.
Theft preventer. J. Polivka. No. 1,414,666; May 2.
Thimble, Chimney. L. B. Malinowsky and C. W. Kirk. No. 1,414,367; May 2.
Thimble-decorating device. F. J. Kristofek. No. 1,414,820; May 2.
Thread-rolling die. R. M. Heames. No. 1,414,641; May 2.
Threads, Gear-like indicator of stripped. D. C. Klausmeyer. No. 1,415,005; May 2.
Tie: *See*—
Package tie.
Time meter. R. E. Bishop. No. 1,414,855; May 2.
Tin-plate-cleaning machine. W. L. McKean. No. 1,414,365; May 2.
Tin plates, Manufacturing. T. Evans. No. 1,414,347; May 2.
Tire. F. E. Bessler. Nos. 1,414,543–4; May 2.
Tire-boot clamp. A. T. Moore. No. 1,414,969; May 2.
Tire-casing filler. W. M. McEwen. No. 1,414,478; May 2.
Tire chain. M. Wenzowitz. No. 1,414,848; May 2.
Tire-chain fastener. E. S. and R. C. Hogshead. No. 1,414,467; May 2.
Tire-grip chain. R. E. Benson. No. 1,414,396; May 2.
Tire-inflating device. A. A. Ewald. No. 1,414,559; May 2.
Tire protector. P. Echter. No. 1,414,632; May 2.
Tire remover and replacer, Clincher. F. E. Wafer. No. 1,414,908; May 2.
Tool. D. Roberts. No. 1,414,750; May 2.
Tool. C. S. Straight. No. 1,414,531; May 2.
Tool. E. Wells. No. 1,414,847; May 2.
Tool box. M. Meyerson. No. 1,414,826; May 2.
Tooth, Artificial. E. J. Kochmit. No. 1,414,475; May 2.
Tooth cervical clamp. J. W. Ivory. No. 1,414,647; May 2.
Tooth cleaner, Sanitary. R. Thum. No. 1,414,604; May 2.
Toothbrush. P. Iroff. No. 1,414,645; May 2.
Toothbrush. H. Matsumaga. No. 1,414,886; May 2.
Torches, Mixer for welding. W. P. Brown and G. M. Brittain. No. 1,414,454; May 2.
Towing machine and towing. A. Cunningham. No. 1,414,724; May 2.
Toy adding machine. A. E. Larson. No. 1,414,655; May 2.
Toy cannon. P. Peterson. No. 1,414,827; May 2.
Toy, Educational. J. M. Brandvein. No. 1,414,857; May 2.
Toy, Figure. W. Buornat. No. 1,414,501; May 2.
Toy, Figure wheeled. J. Mazur. No. 1,414,887; May 2.
Toy knitting machine. L. G. Egger. No. 1,414,869; May 2.
Toy, Musical. G. E. Terranova. No. 1,414,446; May 2.
Toy, Rocking. C. E. Morris. No. 1,414,785; May 2.
Toy vehicle. W. L. Hoge. No. 1,414,950; May 2.
Toy vehicle, Rocking. C. D. Marlowe, Sr. No. 1,414,368; May 2.
Tractor-controlling means. O. L. Oakes. No. 1,414,988; May 2.
Tractor drawbar. H. J. Case. No. 1,414,457; May 2.
Tractor wheels. Detachable extension rim for. F. W. Willig. No. 1,414,537; May 2.
Tractors, Automatic gravity ignition cut-out for. C. Chisman. No. 1,414,932; May 2.
Tractors, Drawbar hitch for. F. M. Blain. No. 1,414,770; May 2.
Train control. I. Butler. No. 1,414,860; May 2.
Train stop and control. H. B. Spencer. No. 1,414,596; May 2.
Transfer mechanism. W. S. Kinsley. No. 1,414,699; May 2.
Transportation, System of. H. W. Kirchner. No. 1,414,516; May 2.
Tread surfaces, Lug for. N. C. Bement. No. 1,414,334; May 2.
Trolley wheels to trolley wires, Device for restoring. D. L. Chestnut. No. 1,414,548; May 2.
Trousers clip. E. A. Arolan. No. 1,414,926; May 2.
Truck. O. Schulz. No. 1,414,672; May 2.
Truck, Car. G. A. Anderson. Nos. 1,414,915–25; May 2.
Truck, Car. B. W. Kadel. Nos. 1,414,955–63; May 2.
Truck side frame, Pedestal. H. E. Doerr. No. 1,414,554; May 2.
Truck turntable. F. E. Arndt. No. 1,414,719; May 2.
Turbine. H. A. Hood. No. 1,414,984; May 2.
Turnbuckle wrench. J. T. McCaskey. No. 1,414,989; May 2.
Type-casting machine, Delivering mechanism for. M. C. Indahl. No. 1,414,472; May 2.

Typewriter, Cryptographic. P. G. G. Beyer. No. 1,414,496; May 2.
Typewriters, Ribbon-inking attachment for. H. E. Delbare. No. 1,414,865; May 2.
Typewriting machine. W. F. Helmond. No. 1,414,738; May 2.
Typograph machines, Electrically-heated melting pot for. G. O. Cromwell. No. 1,414,689; May 2.
Typograph matrix-setting and line-casting machine. J. Dörneth. No. 1,414,775; May 2.
Typographical mechanism. H. G. Pottle. No. 1,414,707; May 2.
Unbalance, Means for and method of testing. H. A. Affel. No. 1,414,391; May 2.
Undergarment. N. Lippman. No. 1,414,986; May 2.
Underreamer. E. H. Newkirk. No. 1,414,704; May 2.
Universal joint. A. G. Herreshoff and A. H. Leipert. No. 1,414,411; May 2.
Universal joint. E. H. Sherbondy. No. 1,414,377; May 2.
Universal winder head. H. G. Johnson. No. 1,414,514; May 2.
Upper-shaping machine. M. Brock. No. 1,414,498; May 2.
Vacuum cleaner. J. J. Merithew. No. 1,414,967; May 2.
Valve. P. J. Hussey. No. 1,414,416; May 2.
Valve, Blow-off. W. A. Kitts, Jr. No. 1,414,651; May 2.
Valve-controlling mechanism. G. Corbella and G. Longoni. No. 1,414,624; May 2.
Valve device, Brake-. S. W. Dudley. No. 1,414,807; May 2.
Valve gear, Engine-. J. D. Hood. No. 1,414,739; May 2.
Valve grinder. W. H. Heath. No. 1,414,358; May 2.
Valve-grinding device. J. M. Hamilton. No. 1,414,983; May 2.
Valve mechanisms, Lubricator for. W. M. Copeland. No. 1,414,934; May 2.
Valve, Meter alarm. J. H. Brumbaugh. No. 1,414,723; May 2.
Valve, Poppet. C. T. Bangs. No. 1,414,495; May 2.
Valve pump or motor, Compound. W. F. Mayer. No. 1,414,965; May 2.
Valve-repair tool. H. P. Kraft. No. 1,414,819; May 2.
Valve-rotating device. W. G. Buck. No. 1,414,499; May 2.
Valve, Rotary. A. Dickerson. No. 1,414,692; May 2.
Valve-seat retainer. F. W. Parsons. No. 1,414,665; May 2.
Valve, Stop. L. B. Harris. No. 1,414,357; May 2.
Vanity box. M. M. Sabatelli. No. 1,414,899; May 2.
Vehicle brake. C. Kokesh. No. 1,414,882; May 2.
Vehicle chassis. C. F. Penn. No. 1,414,749; May 2.
Vehicle, Child's. J. F. Johnstone and D. A. Johnston. No. 1,414,515; May 2.
Vehicle-curtain construction and mounting. A. W. Widenham. No. 1,414,681; May 2.
Vehicle dumping and jacking means. G. J. Spohrer. No. 1,414,835; May 2.
Vehicle signal, Motor. E. Aufiero. Nos. 1,414,612–3; May 2.
Vehicle wheel. E. E. Slick. No. 1,414,437; May 2.
Vehicle window frame. C. M. Dwyer. No. 1,414,399; May 2.
Vehicles, Adjustable wind and storm shield for. D. E. Vanderveer. No. 1,414,534; May 2.
Vehicles, Attachment for motor. H. Hueber. No. 1,414,513; May 2.
Vehicles, Sliding side light for motor. E. J. Lieniz. No. 1,414,783; May 2.
Vehicles, Spring for motor road. F. W. Johnstone. No. 1,414,813; May 2.
Vehicles, Unloading apparatus for. H. V. Stuth. No. 1,414,600; May 2.
Vending machine. W. W. Wasson. No. 1,414,909; May 2.
Vending machine, Coin-controlled. F. M. Case. No. 1,414,502; May 2.
Vise, Hand. S. M. Gibbs. No. 1,414,354; May 2.
V-notch liquid meter. W. E. Turner. No. 1,414,385; May 2.
Vulcanizing apparatus. J. R. Gammeter. No. 1,414,507; May 2.
Wagon, Dump. H. P. Jensen-Beärlundd. No. 1,414,954; May 2.
Wall construction. J. H. Lewis. No. 1,414,425; May 2.
Walls of blocks, Guiding means to aid in laying. W. H. Smith. No. 1,414,755; May 2.
Washer: *See*—
Rotary washer.
Washer, Rotary. R. Tolookjian. No. 1,414,605; May 2.
Washing machines, Driving mechanism for. L. W. Mammen. No. 1,414,430; May 2.
Washing machines, Wringer-supporting mechanism for. J. L. Coffield. No. 1,414,551; May 2.
Watches and like articles, Dial and marking for. H. F. Cuntz. No. 1,414,628; May 2.
Water heater. R. J. Hutchins and J. Kirby, Jr. No. 1,414,361; May 2.
Water heater, Electric. F. S. Arntfield. No. 1,414,494; May 2.
Watering trough. F. Turk. No. 1,414,532; May 2.
Waterproofing material. J. R. Roether. No. 1,414,670; May 2.
Washing machine. C. W. Hottman, Jr. No. 1,414,468; May 2.
Weighing machine, Traveling. E. Gase. No. 1,414,694; May 2.
Welding apparatus. F. L. Slife. No. 1,414,530; May 2.
Well-digging machine. W. V. Seifert. No. 1,414,590; May 2.
Wells, Flowing device for. L. Friedman and D. Wallace. No. 1,414,402; May 2.
Wheel: *See*—
Cast metal wheel.
Demountable wheel.
Disk wheel.
Resilient wheel.
Spring wheel.
Vehicle wheel.
Wheel, Demountable. A. L. Putnam. No. 1,414,374; May 2.
Window. G. Guard. No. 1,414,947; May 2.
Window construction. J. Elniff. No. 1,414,776; May 2.
Window construction for buildings. B. L. Rothstein. No. 1,414,583; May 2.
Window-control mechanism, Vehicle. S. W. Nicholson. No. 1,414,523; May 2.
Window-shade and curtain-holding device, Combination. C. E. Durham and A. J. Rohr. No. 1,414,982; May 2.
Window-shade holder. G. H. Baker. No. 1,414,929; May 2.
Windshield cleaner. D. C. Oatman and F. G. Curvin. No. 1,414,578; May 2.
Wire-drawing blocks, Stripping mechanism for. J. Sommer. No. 1,414,380; May 2.
Wire straightener. A. H. Nilson. No. 1,414,371; May 2.
Wireless duplex signaling system. M. M. Dolmage. No. 1,414,629; May 2.
Wrench: *See*—
Turnbuckle wrench.
Wrench. A. Stuarts. No. 1,414,839; May 2.
Wrench. N. Hellem. No. 1,414,949; May 2.
Wrench. O. R. Kirkpatrick. No. 1,414,817; May 2.
X-ray stand. W. Meyer. No. 1,414,658; May 2.

ALPHABETICAL LIST OF DESIGNS.

Charm. N. Lieberfreund. No. 60,928; May 2.
Lighting bulb. C. A. Campbell. No. 60,925; May 2.
Mattress ticking or similar article of manufacture. E. G. Meyers. Nos. 60,930–31; May 2.
Nutcracker and bottle opener, Combined. B. Lutsky. No. 60,929; May 2.
Pen fountain. J. L. Adams. No. 60,924; May 2.
Tire tread or similar article. R. W. Hutchens and S. P. Woodard. No. 60,927; May 2.
Tire, Vehicle. A. A. Glidden and E. O. Fritch. No. 60,926; May 2.

ALPHABETICAL LIST OF TRADE-MARKS REGISTERED.

Automobiles, motor cars and trucks, and parts thereof. Durant Motor Company of New York. No. 154,764; May 2.
Candy. Allen-Qualley Company. No. 154,768; May 2.
Canned fruits, vegetables, tuna fish, and preserves. Hunt Brothers Packing Company. No. 154,771; May 2.
Chocolate confections. Henry Maillard, Inc. No. 154,772; May 2.
Dresses, Children's and misses'. M. Shaw & Co. No. 154,774; May 2.
Hammers and metal and wood lathes, Machine forging. Little Giant Company. No. 154,766; May 2.
Medicinal preparation. Dairy Association Co. No. 154,770; May 2.
Medicine for constipation and liver complaint. J. W. Rogers. No. 154,767; May 2.
Milk, Malted. C. Manas. No. 154,773; May 2.
Oil and hair restorative, Anointing. N. S. Kitchens. No. 154,765; May 2.
Sandwiches, Candy. C. L. Brush. No. 154,769; May 2.

ALPHABETICAL LIST OF LABELS.

"Anza The Culture Ripened Coffee." (For Coffee.) Cultured Coffee Company of America. No. 24,298; May 2.
"Arctic Ice Cream Bar." (For Chocolate-Coated Confection Bars.) J. L. Strong. No. 24,321; May 2.
"Avanti." (For Boxes Containing Cigars.) Parodi Cigar Co., Inc. No. 24,313; May 2.
"Butter Krust." (For Bread.) Saniwax Paper Co. No. 24,318; May 2.
"Carolina Brand." (For Sweet Potatoes.) South Carolina Sweet Potato Association. No. 24,320; May 2.
"Caruso." (For Olive Oil.) R. Martorelli. No. 24,310; May 2.
"Cleanbright Washing Tablets." (For Washing Tablets.) C. F. Bender. No. 24,292; May 2.
"Coney Island Ice Cream Bar." (For Chocolate-Coated Confection Bars.) J. L. Strong. No. 24,322; May 2.
"Crescent Brand." (For Sardines.) F. E. Booth Company. No. 24,294; May 2.
"Cuban Samples." (For Cigars.) Cole Lithographing and Printing Co. No. 24,296; May 2.
"Cupid Bread." (For Bread.) Robertson Paper Co., Inc. No. 24,316; May 2.
"Dan-Doo." (For Containers for a Massage Cream, for Treatment of Dandruff, Blackheads, Eczema, and Pimples of Skin and Scalp.) Dan-Doo Co. No. 24,299; May 2.
"Del Monte." (For Soft-Collar Pins.) J. Goldsmith, Jr. No. 24,304; May 2.
"De Pree Quality Lawn." (For Boxes of Stationery.) White & Wykoff Mfg. Co. No. 24,328; May 2.
"Durable As Grandma's Knitting." (For Sweaters.) Kling Bros. & Co., Inc. No. 24,308; May 2.
"Enchantment Linen." (For Boxes of Stationery.) White & Wyckoff Mfg. Co. No. 24,326; May 2.
"Everlastik Sport Coat." (For Sweaters.) Eclipse Mills Company, Inc. No. 24,300; May 2.
"Friendly Tip." (For Cigars.) M. E. Bulka. No. 24,295; May 2.
"Holland Fabric Finish." (For Boxes of Stationery.) White & Wyckoff Mfg. Co. No. 24,327; May 2.
"Homelike." (For Cake.) Ward Baking Company. No. 24,325; May 2.
"Hunts Supreme." (For Canned Peaches.) Hunt Brothers Packing Company. No. 24,306; May 2.
"Iceberg Ice Cream Bar." (For Ice Cream and Ice-Cream Confections.) L. V. Orsinger. No. 24,312; May 2.
"Instantaneous Metal Polish." (For Bottles Containing a Liquid Metal Polish.) W. H. Salisbury. No. 24,317; May 2.
"King Kwality Koffee." (For Coffee.) King Koffee Kompany. No. 24,307; May 2.
"Kremola." (For Face Creams.) Dr. C. H. Berry Company. No. 24,293; May 2.
"'Laurelette.'" (For Display Cards for Jewelry.) C. J. Fox Company. No. 24,302; May 2.
"Look New Simon-I-Polish." (For Bottles of Polish for Silver, Brass, and Other Metals.) I. Simon. No. 24,319; May 2.
"Manna Bread." (For Bread.) Crouch & Plassman. No. 24,297; May 2.
"Moose." (For Trousers.) L. G. Titus. No. 24,323; May 2.
"O-So-Clean." (For Cleaning White-Enamel Woodwork, Porcelain, Marble, Glass, etc.) Universal Products Co. No. 24,324; May 2.
"Patrick's Mentho-Mustard." (For Ointment.) J. K. Patrick. No. 24,314; May 2.
"Pierrette." (For Boxes of Stationery.) White & Wyckoff Mfg. Co. No. 24,329; May 2.
"Pride of Georgia Sweets." (For Crates and Other Receptacles Used in Shipping Selected Sweet Potatoes.) Planters Products Company. No. 24,315; May 2.
"Safety First." (For Kansas Hard-Wheat Flour.) Lindsborg Milling & Elevator Company. No. 24,309; May 2.
"Sandwich Bread." (For Bread.) W. Freihofer. No. 24,303; May 2.
"Served as Bread." (For Cartons Containing Crackers.) Green & Green Company. No. 24,305; May 2.
"Speed." (For Boxes Containing a Corn, Wart, and Mole Remedy.) G. T. Edwards. No. 24,301; May 2.
"The Sanitary Talcum Powder Dispenser." (For Talcum-Powder Dispensers.) Olafson-Cohen-Anderson Mfg. Co. Inc. No. 24,311; May 2.

ALPHABETICAL LIST OF PRINTS.

"Banner Brush." (For Advertising Purposes for Brushes.) Milwaukee Paper Box Company. No. 6,090; May 2.
"Cherries." (For Advertising Purposes for Chocolate Covered Cherries in Cream.) Milwaukee Paper Box Company. No. 6,089; May 2.
"Daintee Corn Holder." (For Advertising Purposes for a Corn Holder.) W. L. Shaughnessy Co. No. 6,092; May 2.
"Detroit Creamery Velvet Brand Ice Cream." (For Advertising Purposes for Ice Cream.) Frederick C. Mathews Company. No. 6,088; May 2.
"'Dinty's' Sheep Coat." (For Advertising Purposes for Sheep-Lined Coats.) Simon Coat Co. No. 6,093; May 2.
"End of the Hunt." (For Advertising Purposes for Coffee.) Hills Bros. No. 6,086; May 2.
"Indestructo." (For Advertising Purposes for Varnish.) West Varnish Co. No. 6,095; May 2.
"The Choice of Hosts." (For Advertising Purposes for Coffee.) Hills Bros. No. 6,087; May 2.
"The Nightmare." (For Advertising Purposes for Jell-O, a Dessert Preparation.) Genesee Pure Food Co. No. 6,084; May 2.
"The Sanitary Talcum Powder Dispenser." (For Advertising Purposes for Packages Containing Talcum-Powder Pads and Talcum-Powder-Pad Holders.) Olafson-Cohen-Anderson Mfg. Co. No. 6,091; May 2.
"Tiger-Foot." (For Advertising Purposes for Tires.) Standard Tire Company. No. 6,094; May 2.
"Treasure." (For Advertising Purposes for Coffee.) Hills Bros. No. 6,085; May 2.

ALPHABETICAL LIST OF TRADE-MARK TITLES.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Astringent, hair tonic, skin lotion, cleansing cream, complexion powder, etc. S. Neiman. No. 156,069; May 2.
Axles. Wisconsin Parts Company. No. 126,202; May 2.
Baby pants. A. Stein & Company. No. 148,622; May 2.
Baking powder. O. P. Crim. No. 157,057; May 2.
Batteries, Storage. Simmons Hardware Company. No. 156,811; May 2.
Books, loose-leaf binders, writing and typewriting paper, lead pencils, etc., Blank and memorandum. Buettell Brothers Company. No. 158,849; May 2.
Brass rods. Bridgeport Brass Company. No. 154,473; May 2.
Buckles made of precious metal, Belt, shoe, and clothing. Wightman & Hough Company. No. 155,724; May 2.
Burial cases. Embalming Burial Case Company. No. 156,361; May 2.
Buttons, shirt studs, lockets, lorgnettes, etc., Lapel, shrine, and link. Abel Bros. & Co. No. 151,649; May 2.
Cakes, wafers, crackers, biscuits. Loose Wiles Biscuit Company. No. 152,711; May 2.
Calcium hypochlorite or containing same, Preparations consisting in. Chemische Fabrik Griesheim-Elektron. No. 146,163; May 2.
Candles and oils. Haddock, Parker & Co. No. 140,385; May 2.
Chambray and cheviots in the piece. Riverside & Dan River Cotton Mills, Inc. No. 156,342; May 2.
Chemicals and paints, more particularly lithopone, permanent zinc paint. Ste. Ame. des Industries Chimiques Wilsele-Louvain. No. 159,000; May 2.
Chemicals, medicines, and pharmaceutical preparations. B. Rottenberg. No. 126,945; May 2.
Cigars. Estate of Joseph J. Schaefer. No. 146,996; May 2.
Cleanser and polish for pianos, automobiles, etc., Liquid. G. F. Ziegler. No. 148,102; May 2.
Clocks, alarm watches, watches, Alarm. Kienzle Uhrenfabriken Kommanditgesellschaft. No. 142,847; May 2.
Clothes-washing machine. R. S. Burlingame. No. 153,428; May 2.
Cloths and stuffs, Woven, knitted, and other. Derwent Mills Limited. No. 137,922; May 2.
Colors and fillers, Dry. C. K. Williams & Co. No. 155,074; May 2.
Corsets, Elastic. Treo Company. Nos. 157,339–42; May 2.
Corsets, hose supporters, abdominal belts, brassières, etc. A. H. Lockwood. No. 154,034; May 2.
Cotton piece goods. Pacific Mills. No. 142,667; May 2.
Cotton piece goods. Passaic Print Works. No. 156,405; May 2.
Cotton piece goods. Passaic Print Works. No. 156,411; May 2.
Cotton, silk, and other piece goods. Mount Hope Finishing Company. No. 155,765; May 2.
Dental tools. United States Dental Manufacturing Co. No. 144,007; May 2.
Dental tools. United States Dental Manufacturing Co. No. 145,245; May 2.
Diagnostic instruments, Eye, ear, nose, and throat. H. L. De Zeng. No. 155,602; May 2.
Drills, twills, sheetings, denim, etc. C. Alexopoulos Bros, Inc. No. 158,108; May 2.
Electric apparatus, machines, and supplies. United Auto Electric Service, Inc. No. 157,345; May 2.
Electric currents and for converting into sound electric currents representing telegraphic, telephone, and other signals, Apparatus for amplifying the effect of. John Firth & Co. No. 157,518. May 2.
Electric fixtures. Hemco Electric Manufacturing Company. Nos. 158,868–9; May 2.
Electric hot-air baths and douches and electrical massage devices. Elektrizitätsgesellschaft Sanitas mit beschrankter Haftung. No. 145,885; May 2.
Electric power-generating units. Lincoln Light Corporation. No. 157,432; May 2.
Electric spark energizer. B. Shapleigh. No. 158,338; May 2.
Electric stop and direction signals for automobiles. Traf-O-Lite Manufacturing Company. No. 155,071; May 2.
Electrical attachment and switch plugs. Beaver Mach. & Tool Co. No. 158,847; May 2.
Electrical lighting fixtures and supplies. J. Rabinovitz. No. 143,650; May 2.
Electrical switches, inclosed electrical switches, ground clamps, outlet boxes, and cores, etc. S. Schmukler & Son. No. 157,904; May 2.
Face bleach, building astringent, powder used as a foot ease, rouge, etc. A. Thompson. No. 156,118; May 2.
Figs. Giebeler & Goldman. No. 145,331; May 2.
Filler, stovepipe enamel, asphalt roof paint, and tinner's red roof paint. Crack. Rutland Fire Clay Co. No. 154,994; May 2.
Finger-nail buffers. C. T. Sundmacher. No. 156,507; May 2.
Finger rings. M. Bauman. No. 157,297; May 2.
Finger rings. C. B. Poage. No. 158,006; May 2.
Finger rings. Uncas Manufacturing Co. No. 158,269; May 2.
Finger rings, bar and scarf pins, bracelets, etc. Katz & Ogush, Inc. No. 158,477; May 2.
Food containers, more particularly glass jars. Nifty Jar & Cooker Manufacturing Company. No. 157,844; May 2.
Garment bags, Moth and dust proof. Ever Ready Garment Bag Co. No. 154,921; May 2.
Gasoline. Black Hawk Oil Company. No. 158,174; May 2.
Glass products. Chicago Glass Products Company. No. 156,680; May 2.
Glue and gelatin. La Societe des Produits Chimiques Coignet. No. 157,322; May 2.
Greases, lubricating and other oils, etc., Axle and other. Standard Oil Company. No. 139,682; May 2.
Greases, oils, etc. Standard Oil Company (Incorporated in New Jersey). No. 158,264; May 2.
Hair nets. E. B. Dewey. No. 158,079; May 2.
Hair nets. G. Klemperer. No. 155,502; May 2.
Hair nets. Paristyle Novelty Co. No. 158,438; May 2.
Hair nets. Samstag & Hilder Bros. No. 156,115; May 2.
Hair nets. R. Scheanblum. No. 156,765; May 2.
Hair nets. Sitroux Importing Company. No. 155,786; May 2.
Hats and caps, Men's and boys'. Henry Sonneborn & Co. No. 152,724; May 2.
Horseshoeing apparatus. A. Szabo. No. 155,279; May 2.
Hosiery of silk or cotton or combinations of the same, Women's. Propper Silk Hosiery Mills, Inc. No. 149,349; May 2.
Incense, Aromatic. Louis Lucas Company. No. 155,818; May 2.
Knitted goods of wool and wool mixture. Gold Mark Knitting Co. No. 156,896; May 2.
Knitted woolen and worsted cloths, eiderdowns, etc. Continental Mills, Inc. No. 155,804; May 2.
Lamps, Therapeutic. S. Robert Schwartz & Bro. No. 156,549; May 2.
Lightning arresters. E. A. Everett. No. 153,547; May 2.
Lime, Chlorinated. P. C. Tomson & Co. No. 156,555; May 2.
Liniment, Solidified. American Chemical & Drug Company. No. 156,732; May 2.
Lotion for dressing the hair. C. F. Root. No. 155,832; May 2.
Lye. P. C. Tomson & Co. No. 156,553; May 2.
Medicinal preparations. Feng Laboratories, Inc. No. 155,958; May 2.
Medicinal preparation for treatment of the gums and teeth. A. A. Rosenfield. No. 156,807; May 2.
Medicinal preparation for the treatment of the nerves, stomach, liver, kidney, etc. A. Arend Drug Co. No. 149,533; May 2.
Medicinal preparation used in treatment of hemorrhoids. Dr. A. C. Haines. No. 148,287; May 2.
Medicine for kidney, liver, etc., troubles. F. A. Thompson & Company. No. 156,935; May 2.
Medicine for treatment of stomach, liver, and kidney troubles, constipation, etc. Purabrand Products Co. No. 156,462; May 2.
Metals and alloys, and ingots, castings, etc., made from same, Cast drawn, etc. American Brass Company. No. 155,852; May 2.
Milling reamers and cutters. Detroit Twist Drill Company. No. 144,668; May 2.
Motor cycles. Ner-A-Car Corporation. No. 159,279; May 2.
Musical instruments and parts thereof, Stringed. E. W. Plate. No. 155,115; May 2.
Nail files and buffers, manicuring scissors, cuticle knives. James McCreery & Company. No. 158,244; May 2.
Nails and tacks. Auto-Vehicle Parts Company. No. 155,425; May 2.
Necklaces, Bead. Mission Bead Company. No. 154,087; May 2.
Neckties and scarfs. L. Schiller. No. 153,057; May 2.
Oil and grease, Lubricating. Globe Refining Company. No. 158,767; May 2.
Oils and greases and gasoline, Lubricating and illuminating. A. V. McConaghy. No. 157,529; May 2.
Oils, Lubricating. Wadham Oil Company. No. 155,579; May 2.
Oils, Road. Union Oil Company of California. No. 154,339; May 2.
Ointment remedies for dandruff. G. J. Benavides. No. 156,433; May 2.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Pails, drums, and cheese boxes and fiber containers for shipping commodities, Fiber. Container Company. No. 146,955; May 2.
Paint and varnish removers. Chalmers Chemical Company. No. 157,756; May 2.
Paint coatings, Protective. Dampney Company of America. Nos. 157,027–8; May 2.
Paints and varnishes, Fireproof. N. M. Hopkins. No. 156,966; May 2.
Paints, Dry. Sun Chemical & Color Company. No 156,112; May 2.
Paints, fillers, stains, etc. McDougall-Butler Co. No. 152,853; May 2.
Paints of ready-mixed form and varnishes, fillers, paint pigments and vehicles, etc. Marine Decking & Supply Company. No. 157,328; May 2.
Paints, ready-mixed paint, enamels, varnishes, etc. John Sexton and Company. No. 158,099; May 2.
Paints, varnishes, and putty. M. I. Wilcox Company. No. 157,197; May 2.
Paper and envelopes, Writing. Charles E. Weyand & Co. No. 154,291; May 2.
Paper, cardboard, bristol board, etc., Writing, typewriting, and other. Strathmore Paper Company. No. 159,328; May 2.
Paper, papeteries, correspondence envelopes, etc., Writing, printing, and typewriter. Powers Paper Company. No. 157,952; May 2.
Paper, Toilet. White-Washburne Company. No. 158,502; May 2.
Paper, Writing. Inter-Collegiate Press. No. 147,026; May 2.
Paper, writing tablets, papeteries, etc., Writing, printing, and typewriter. Powers Paper Company. No. 157,955; May 2.
Papers, Writing and printing. American Writing Paper Company. No. 157,292; May 2.
Pearls, Imitation. May Department Stores Company. No. 155,700; May 2.
Pearls, necklaces, and clasps. F. M. Botelho. No. 155,474; May 2.
Perfume, toilet water, face lotion, rouge, etc. Cheramy, Incorporated. No. 157,023; May 2.
Perfumes and toilet water. J. Herman. No. 155,883; May 2.
Phonographs, phonograph records, player and manual pianos and organs, and player rolls. Pace Phonograph Corporation. No. 157,387; May 2.
Pianos. C. C. and E. E. Conway and T. P. Brown, trustees. No. 152,800; May 2.
Plates and connections for electric-lighting fixtures, etc., Wall and ceiling. Electric Outlet Company. No. 155,551; May 2.
Polish, Furniture. L. E. Scott. No. 154,935; May 2.
Polishing cream for pipes used in smoking tobacco. Stearn Company. No. 155,534; May 2.
Powder, Talcum. Bauer & Black. No. 155,592; May 2.
Preparation for the throat and lungs. F. Carlson. No. 156,780; May 2.
Preparation for use in making face powder adhere to the skin, Liquid. Complexion Products Co. No. 157,056; May 2.
Radio mechanism, Appliances for. American Radio Sales and Service Company. No. 153,864; May 2.
Remedy for fistula and poll-evil in horses and cattle. W. Ballhorn. No. 156,071; May 2.
Rings, Finger. M. Seiger & Son. No. 155,372; May 2.
Rope, rovings, cords, and twines. Clark Bros. Mfg. Co. No. 157,887; May 2.
Rubber heels. S. Santalucia. No. 157,694; May 2.
Sacks, wooden cases, boxes, crates, etc. Fruit and Produce Exchange of Great Britain, Limited. No. 140,026; May 2.
Salt. Worcester Salt Co. No. 155,723; May 2.
Salve for boils, cuts, wounds, etc. E. V. Vlach. No. 155,648; May 2.
Salves and ointments. Combustinwerk Eulitz & Co. No. 148,018; May 2.
Sanitary aprons and belts. A. Stein & Company. No. 157,698; May 2.
Seeds, Field and garden. Pease & Dwyer Co. No. 156,057; May 2.
Serge in the piece. M. M. Scher. No. 157,239; May 2.
Scarf pins, watch chains, jewelry, table knives, etc. Ovington Bros. Company. No. 142,403; May 2.
Sheetings, Cotton. Columbus Manufacturing Company. No. 155,256; May 2.
Shoes. Morse and Burt Co. No. 156,700; May 2.
Silk, cotton, and woolen piece goods and a combination thereof. Walker Knitting Mills, Inc. No. 158,105; May 2.
Silk knitted cloth. Banner Silk Knitting Mills, Inc. No. 157,356; May 2.
Silks, velvets, and ribbons in the piece. Kohn, Adler & Co. No. 153,252; May 2.
Spark timers for internal-combustion engines. Berg Bros. Mfg. Company. No. 151,780; May 2.
Suits, Boys'. H. W. Rothstein. No. 152,806; May 2.
Suits, Men's. H. W. Rothstein. No. 152,807; May 2.
Suspensories. J. E. Naregan. No. 156,918; May 2.
Sweepers, Electric suction. Clements Mfg. Co. No. 150,657; May 2.
Switches and circuit interrupters, Starting. Miniature Breaker Co. No. 158,482; May 2.
Switches, lightning arresters, choke coils, Disconnecting. Electrical Engineers Equipment Company. No. 142,700; May 2.
Tablets, Laxative. J. M. Kappus. No. 145,218; May 2.
Talking-machine records, Transportation package for. Reco-Rap Company. No. 158,149; May 2.
Talking machines and music boxes. Lyon & Healy. No. 157,158; May 2.
Thread and yarn. Clark Thread Company. No. 160,794; May 2.
Timers for internal-combustion engines. Chicago Timer Factory Incorporated. No. 157,257; May 2.
Toilet, hair, and tooth-paste-tube receptacles, etc. E. I. du Pont de Nemours & Company. No. 140,929; May 2.
Toilet preparations. D. Jaquet. No. 152,755; May 2.
Toilet preparations. E. Powers. No. 155,632; May 2.
Toilet preparations for skin treatment. Societe La France Toilet Goods Co. No. 156,024; May 2.
Tooth-brush containers, Antiseptic. B. L. Hoch. No. 157,567; May 2.
Tooth wash, hair tonic, cough medicine, etc. J. B. Shenk. No. 136,437; May 2.
Tracing cloth. Winterbottom Book Cloth Company Limited. No. 158,351; May 2.
Umbrellas and parasols. W. N. Stevenson & Co. No. 161,388; May 2.
Vanity cases. A. B. Flagg. No. 158,828; May 2.
Varnishes. Berry Brothers. No. 155,083; May 2.
Varnishes. McCloskey Varnish Co. No. 156,165; May 2.
Varnishes, finishes, lacquers, paint enamels, etc. Morgan Company. Nos. 149,920–1; May 2.
Velocipedes, Children's. Central Wheel Company. No. 159,563; May 2.
Voile cloths, Cotton. James Orr & Sons, Limited. No. 156,461; May 2.
Washing machines, Laundry. Detroit Washing Machine Corporation. No. 154,437; May 2.
Washing machines, Laundry. Sunny Line Appliances, Inc. No. 144,108; May 2.
Watch blanks. Fabrique d'Horlogerie de Fontainemelon S. A. Nos. 137,771–2; May 2.
Watches and watch movements, dials, and cases. Adolphe Schwob, Inc. No. 145,860; May 2.
Watches, watchcases, watch movements, and parts thereof. R. A. Gsell. No. 135,993; May 2.
Yarns, Spun silk. New England Spun Silk Corporation. Nos. 159,374–5; May 2.
Yarns, Spun silk. New England Spun Silk Corporation. Nos. 159,377–84; May 2.

CLASSIFICATION OF PATENTS

ISSUED MAY 2, 1922.

NOTE.—First number=class, second number=subclass, third number=patent number.

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367: 1,414,522
177— : 1,414,612
1,414,613
338: 1,414,686
339: 1,414,745
179— 27: 1,415,001
90: 1,414,373
175: 1,414,391
1,414,397
179: 1,414,442
180— 6: 1,414,891
14: 1,414,988
16: 1,414,938
181— 32: 1,414,801
183— 9: 1,414,993
184— 29: 1,414,610
48: 1,415,000
188— 31: 1,414,882
199: 1,414,671
189— 46: 1,414,387
190— 30: 1,414,826
191— 75: 1,414,548
192— 107: 1,414,490
114: 1,414,884
116: 1,414,727
193— 55: 1,414,429
194— 63: 1,414,502
196— 25: 1,414,400
1,414,695
27: 1,414,465
197— 4: 1,414,496
91: 1,414,738
171: 1,414,865
198— 10: 1,414,398
84: 1,414,667
134: 1,414,424
140: 1,414,810
183: 1,414,674
199— 1: 1,414,464
4: 1,414,775
49: 1,414,707
95: 1,414,472
200— 26: 1,414,823
48: 1,414,892
50: 1,414,421
52: 1,414,932
1,414,933
81: 1,414,912
1,414,913
94: 1,414,453
130: 1,414,864
1,414,977
202— 9: 1,414,524
204— 5: 1,414,423
29: 1,414,510
1,414,710
64: 1,414,362
1,414,401
206 28: 1,414,946
29: 1,414,944
48: 1,414,945
208— 33: 1,414,950
42: 1,414,368
1,414,515
210— 67: 1,414,526
74: 1,414,525
211— 8: 1,414,909
14: 1,414,712
24: 1,414,902
213— 59: 1,414,606
67: 1,414,457
214— 2: 1,414,699
6: 1,414,998
18: 1,414,489
58: 1,414,760
215— 51: R. 15,346
1,414,705
67: 1,414,770
88: 1,414,867
216— 9: 1,414,678
217— 56: 1,414,896
58: 1,414,682
91: 1,414,861
219— 10: 1,414,822
38: 1,414,494
41: 1,414,381
220— 1: 1,414,911

220— 6: 1,414,948
13: R. 15,347
55: 1,414,569
56: 1,414,392
88: 1,414,611
221— 111: 1,414,571
112: 1,414,870
226— 19: 1,414,805
20: 1,414,359
44: 1,414,825
80: 1,414,706
228— 51: 1,414,893
230— 11: 1,414,967
27: 1,414,463
1,414,621
1,414,573
232— 41: 1,414,584
234— 20: 1,414,388
235— 58: 1,414,730
59: [illegible]4,639
60: 1,414,355
66: 1,414,655
73: 1,414,729
78: 1,414,855
87: 1,414,436
88: 1,414,972
235— 92: 1,414,978
94: 1,414,964
98: 1,414,685
129: 1,414,728
236— 17: 1,414,506
45: 1,414,631
68: 1,414,448
238— 19: 1,414,477
21: 1,414,708
216: 1,414,450
304: 1,414,784
240— 8.5: 1,414,414
1,414,415
41: 1,414,518
1,414,985
241— 6: 1,414,476
242— 25: 1,414,679
43: 1,414,514
55: 1,414,809
1,414,941
81: 1,414,380
110: 1,414,818
242— 134: 1,414,971
244— 13: 1,414,577
29: 1,415,003
31: 1,414,418
1,414,419
246— 90: 1,414,376
134: 1,414,999
184: 1,414,860
199: 1,414,596
247— 10: 1,414,676
1,414,677
248— 20: 1,414,834
249— 45: 1,414,694
250— 6: 1,414,629
34: 1,414,658
35: 1,414,741
251— 49: 1,414,416
50: 1,414,357
54: 1,414,651
252— 1,414,370
253— 140: 1,414,984
178: 1,414,512
254— 86: 1,414,903
103: 1,414,683
145: 1,414,795
172: 1,414,724
255— 21: 1,414,590
76: 1,414,704
257— 130: 1,414,440
243: 1,414,751
258— 23: 1,414,690
259— 101: 1,414,468
260— 166: 1,414,852
261— 41: 1,414,935
262— 28: 1,414,586
30: 1,414,877
263— 15: 1,414,451
34: 1,414,614
49: 1,414,789
265— 13: 1,414,427
27: 1,414,777
61: 1,414,764
266— 44: 1,414,363
267— 54: 1,414,748
65: 1,414,623
74: 1,414,697
274— 10: 1,414,563
1,414,564
15: 1,414,980
24: 1,414,898
25: 1,414,802
1,414,803
274— 25: 1,414,804
27: 1,414,937
37: 1,414,673
275— 15: 1,414,580
279— 2: 1,414,460
78: 1,414,517
280— 33.2: 1,414,343
33.5: 1,414,552
40: 1,414,535
106.5: 1,414,749
284— 18: 1,414,592
285— 118: 1,414,800
287— 100: 1,414,737
289— 17: 1,414,684
290— 38: 1,414,653
292— 195: 1,414,523
241: 1,414,966
278: 1,414,595
293— 35: 1,414,435
55: 1,414,382
1,414,756
1,414,813
1,414,930
294— 17: 1,414,878
91: 1,414,519
93: 1,414,531
294— 102: 1,414,511
296— 47: 1,414,534
1,414,783
92: 1,414,626
140: 1,414,585
141: 1,414,681
145: 1,414,399
1,414,470
297— 3: 1,414,669
298— 13: 1,414,600
17: 1,414,954
21: 1,414,426
299— 77: 1,414,559
301— 6: 1,414,375
9: 1,414,374
33: 1,414,844
44: 1,414,334
52: 1,414,537
63: 1,414,594
64: 1,414,437
65: 1,414,661
1,414,662
1,414,663
303— 20: 1,414,736
50: 1,414,807

ALPHABETICAL LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 9TH DAY OF MAY, 1922.

NOTE.—Arranged in accordance with the first significant character or word of the name. (In accordance with city and telephone directory practice.)

Abraham, Herbert, New York, N. Y., assignor to The Ruberoid Co. Strip-shingle cutter. No. 1,415,758; May 9.
Adams & Westlake Company, The. (See Hamm, W. S., and Schultz, assignors.)
Adams & Westlake Company, The. (See Hamm, William S., assignor.)
Advance Machine Company. (See Antoine, A. D., and Gebert, assignors.)
Akins, Edwin J., Moundsville, W. Va. Drilling bit. No. 1,415,619; May 9.
Aktiebolaget Skandinaviska Orgel-och Pianofabriken. (See Lundquist, A. G., and Jonson, assignors.)
Albrecht, Albert W., St. Louis, Mo. Method of making piston rings. No. 1,415,620; May 9.
Albright, John B., Rockford, Ill. Container and holder for shaving sticks. No. 1,415,621; May 9.
Allen, Chester B., Memphis, Tenn. Vehicle wheel. No. 1,415,288; May 9.
Allen, Edward E., assignor to Allen Machine Company, Erie, Pa. Vulcanizing press. No. 1,415,082; May 9.
Allen, James A., Choccolocco, Ala. Cultivating implement. No. 1,415,759; May 9.
Allen Machine Company. (See Allen, Edward E., assignor.)
Allen, Robert, Woodcote, Reading, England. Gudgeon-pin bush for pistons. No. 1,415,422; May 9.
Alles, Louis H., Wilmington, Del. Toothbrush. No. 1,415,760; May 9.
Aluminum Company of America. (See Hoopes, William, assignor.)
American Car and Foundry Company, et al. (See Ostrander, A. E., and Williams, assignors.)
American Car and Foundry Company. (See Kassler, Adolph, assignor.)
American Gas Appliance Company. (See Gamble, August, assignor.)
American Laundry Machinery Company, The. (See Braley, Charles L., assignor.)
American Metal Company. (See Burkey, H. M., and Schleicher, assignors.)
American Metal Company. (See Hayward, C. R., and Schleicher, assignors.)
American Optical Company. (See Hill, Harry W., assignor.)
American Optical Company. (See Schumacher, E. L., and Boutelle, assignors.)
American Radium Company. (See Cuntz, Herman F., assignor.)
American Telephone and Telegraph Company. (See Klein, Charles H., assignor.)
American Telephone and Telegraph Company. (See Morehouse, Lyman F., assignor.)
American Writing Paper Company. (See Kamm, Oliver, assignor.)
Ames, Butler, Lowell, Mass. Rotor for electrical machines. No. 1,415,761; May 9.
Ames, Butler, Lowell, Mass. Stator for electrical machines. No. 1,415,762; May 9.
Amsler, Walter O., Pittsburgh, Pa. Annealing furnace or leer. No. 1,415,622; May 9.
Anatmos Metals and Furnace Corporation. (See De Bats, Jean H. L., assignor.)
Andersen, Alfred R., Rock Springs, Wyo. Antiskidding device. No. 1,415,289; May 9.
Andersen, Chris F., et al. (See Keller, John F., assignor.)
Anderson, Duncan M., Toronto, Ontario, Canada. Making prepared food. No. 1,415,137; May 9.
Anderson, Walter H., London, England. Carburetor for internal-combustion engines. No. 1,415,423; May 9.
Angus, Arthur R., Minehead, England. Railway safe-running device. No. 1,415,214; May 9.
Angus, Donald J., Indianapolis, Ind. Current transformer. No. 1,415,505; May 9.
Anstiss, George P., assignor to G. S. Blakeslee & Co., Chicago, Ill. Washing machine. No. 1,415,506; May 9.
Antoine, Alfred D., Chicago, and A. E. Gebert, Wilmette, Ill., assignors to Advance Machine Company, Chicago, Ill. Vapor burner. No. 1,415,215; May 9.
Apollo Magneto Corporation. (See Fuegel, G., and Schmid, assignors.)
Armstrong, Charles G., New York, N. Y. Method and apparatus for garbage disposal. No. 1,415,290; May 9.
Armstrong, Edwin H. (See Pupin, M. I., and Armstrong.)
Arndt, Franklin E., assignor to The Galion Iron Works & Mfg. Co., Galion, Ohio. Bucket-door-opening mechanism. No. 1,415,291; May 9.
Arnold, Karl, Nuremberg, Germany. Device for producing sparks for toys. No. 1,415,763; May 9.
Arnold, Thomas N., Fairport, N. Y. Toy. No. 1,415,292; May 9.
Arones, George B. (See Shore, Frank C., assignor.)
Arthur, Robert C. (See Mannion, M., and Arthur.)
"Asfag" Aktiengesellschaft. (See Gebhard, Conrad, assignor.)
Associated Engineers Company. (See Tillson, Edwin D., assignor.)
Atkinson, William, Boxford, assignor to The Vacuum Company, Somerville, Mass. Method of drying goods. No. 1,415,623; May 9.
Atlas Powder Company. (See Mitscherling, Waldemar O., assignor.)
August, Johannes R. C., Halifax, England. Muffle furnace. No. 1,415,424; May 9.
Austin, Estella B., Los Angeles, Calif. Artificial flower and making it. No. 1,415,764; May 9.
Autosales Corporation. (See Grover, Albert D., assignor.)
Badische Maschinenfabrik & Eisengiesserei vormals G. Sebold und Sebold & Neff. (See Henninger, Ludwig, assignor.)
Bailey, Curtis D., Massillon, Ohio. Pedal lock. No. 1,415,425; May 9.
Bailey, Theodore A., Orlando, Fla. Dental floss holder. No. 1,415,765; May 9.
Baker Steam Motor Car and Manufacturing Company, The. (See Orr, Carleton A., assignor.)
Baker, William. (See Lane, Samuel E., assignor.)
Baldwin Eraser Company, The. (See Baldwin, John H., assignor.)
Baldwin, John H., assignor to The Baldwin Eraser Company, Chicago, Ill. Erasing attachment for typewriters. No. 1,415,293; May 9.
Baldwin, William J., Brooklyn, N. Y. Dust separator. No. 1,415,294; May 9.
Ball, John P., Chicago, Ill. Sewage purifier. No. 1,415,007; May 9.
Ballard, Orlo O., and J. C. Stedman, Houston, Tex. Fender attachment. No. 1,415,295; May 9.
Ballester, Vincent E., Brussels, Belgium. Peeling machine. No. 1,415,766; May 9.
Baltzley, Oren F., Hagerstown, Md., assignor to The Smith-Lee Company, Oneida, N. Y. Bottle-cap machine. No. 1,415,507; May 9.
Bandoly, Erich A. M., Chicago, Ill. Scale-beam construction. No. 1,415,508; May 9.
Barber, William, Brooklyn, N. Y. Trailer leg support. No. 1,415,008; May 9.
Barrett Company, The. (See Snyder, Edward B., assignor.) (Reissue.)
Barron, William L., Newark, N. J., assignor to The Singer Manufacturing Company. Button clamp for sewing machines. No. 1,415,426; May 9.
Barry, James J., assignor to L. Pickert Fish Company, East Boston, Mass. Machine for separating flesh from the skin and bones of fish. No. 1,415,296; May 9.
Bartlebaugh, Benjamin C., Wheeling, W. Va. Convertible chair. No. 1,415,767; May 9.
Basley, Harvey V., Jersey City, N. J. Safety clasp. No. 1,415,509; May 9.
Bates, Harry, assignor to Underwood Typewriter Company, New York, N. Y. Typewriting machine. No. 1,415,138; May 9.
Battin & Company. (See Rumble, William, Jr., assignor.)
Bauer, Carl E., Hammond, Ind. Brake-beam fulcrum and making same. No. 1,415,009; May 9.
Bauer, John, Detroit, Mich. Shoe-polishing device. No. 1,415,510; May 9.
Baumetz, Gustave A., Cleveland, Ohio. Storage battery. No. 1,415,139; May 9.
Bausch, John J., assignor to Bausch & Lomb Optical Company, Rochester, N. Y. Mounting for reading lenses. No. 1,415,511; May 9.
Bausch & Lomb Optical Company. (See Bausch, John J., assignor.)
Bausch & Lomb Optical Company. (See Drescher, Theodore B., assignor.)
Bausch & Lomb Optical Company. (See Simpson, Leon G., assignor.)
Bayne, George G., assignor of one-fourth to J. C. Hoehnen and one-fourth to C. G. Branstrator, and one-fourth to Bayne Manufacturing Company, Bushnell, Ill. Adjustable transmission mechanism. No. 1,415,512; May 9.

Bayne Manufacturing Company, et al. (See Bayne, George G., assignor.)
Beck, Simon, Rathdrum, Idaho. Agitator for washing machines. No. 1,415,768; May 9.
Beckman, Edward M., Gary, Ind. Pneumatic tire. No. 1,415,140; May 9.
Beddoes, Hubert, Florence, S. C. Pumping system. No. 1,415,769; May 9.
Beetem, Frank G., Philadelphia, Pa. Suspension for train-lighting dynamos. No. 1,415,083; May 9.
Belt, Francis A., Cincinnati, Ohio. Calculating machine. No. 1,415,297; May 9.
Benjamin, George H., New York, N. Y. Apparatus for drying fruits, vegetables, and other substances. No. 1,415,010; May 9.
Benjamin, George H., New York, N. Y. Tunnel kiln. No. 1,415,011; May 9.
Bennett, Alan M., W. B. Elliott, and W. O'Blenis, Westfield, N. J., assignors, by mesne assignments, to Burke Electric Company. Arc-welding system. No. 1,415,012; May 9.
Bentley, Oliver D. H., Roslindale, assignor to B. F. Sturtevant Company, Hyde Park, Mass. Steam turbine. No. 1,415,298; May 9.
Berger, Richard, assignor to Firm F. Soennecken, Bonn-on-the-Rhine, Germany. Paper roll for roller copying machines. No. 1,415,084; May 9.
Berry, Herbert H., London, England. Electric radiator. No. 1,415,770; May 9.
Berryhill, James G. (See Reed, Charles J., assignor.)
Bertolini, Angelo T., New York, N. Y. Light attachment for sewing machines. No. 1,415,771; May 9.
Bessolo, William L., San Diego, Calif. Flexible chain wrench. No. 1,415,772; May 9.
Betzell, William F., Washington, D. C. Vehicle wheel. No. 1,415,427; May 9.
Biach, Ludwig K., New Haven, Conn. Apparatus for and method of dyeing material. No. 1,415,513; May 9.
Bimm, Georges R., Aubervilliers, France. Electrically-operated vacuum cleaner. No. 1,415,773; May 9.
Bingay, Robert V., Pittsburgh, Pa., assignor to Pittsburgh Transformer Company. Safety valve or blow-off. No. 1,415,216; May 9.
Bishop, James S., Cincinnati, Ohio. Camera. No. 1,415,514; May 9.
Blakeslee, G. S., & Co. (See Anstiss, George P., assignor.)
Blowers, Alonzo S., Portland, Ind. Safety overall pocket. No. 1,415,299; May 9.
Boeckh Company, Limited, The. (See Kirkpatrick, Harry J., assignor.)
Boehm, Rudolph A., assignor to Rickert-Shafer Company, Erie, Pa. Collapsible tap. No. 1,415,013; May 9.
Boerder, Anton, Toledo, Ohio, assignor, by mesne assignments, to U. S. High Speed Steel & Tool Corporation, New York, N. Y. High-speed tool material. No. 1,415,085; May 9.
Boesel, Aloysius G. (See Bosworth, C. M., and Boesel.)
Bohan, Patrick J., assignor of one-half to J. E. Frazer, San Diego, Calif. Gas burner. No. 1,415,141; May 9.
Boorne, William H., London, England. Electrode for electric-arc welding and metal-cutting purposes. No. 1,415,774; May 9.
Booth, William C., Evanston, Ill. Shower or spraying attachment for bathtubs. No. 1,415,014; May 9.
Borchert, Albert G., Cleveland, Ohio. Frame construction. No. 1,415,775; May 9.
Borofsky, Allen, Ayer, Mass. Automatic locking and retaining device for steering mechanisms. No. 1,415,300; May 9.
Bosanko, William. (See Fredel, M. M., and Bosanko.)
Bosch, Robert, Aktiengesellschaft. (See Kratz, Franz, Starker, and Selling, assignors.)
Bostock, Francis J. (See Brown, P., and Bostock.)
Bosworth, Cyrus M., Cleveland, and A. G. Boesel, Cleveland Heights, Ohio. Electric water heater. No. 1,415,015; May 9.
Bouillon, Constant, assignor to Hendey Machine Company, Torrington, Conn. Change-gear mechanism. No. 1,415,515; May 9.
Bounds, Ruel E., and P. S. Dumbolton, Wortham, Tex. Self-set animal trap. No. 1,415,301; May 9.
Bourne, Alexander B., Wallaceburg, Ontario, Canada. Film holder. No. 1,415,776; May 9.
Boutelle, William H. (See Schumacher, E. L., and Boutelle.)
Bowen, William S., New York, N. Y. Steam generator. No. 1,415,777; May 9.
Bowen, William S., New York, N. Y. Steam generator. No. 1,415,778; May 9.
Bowen, William S., New York, N. Y. Electrostatic generator. No. 1,415,779; May 9.
Bowen, William S., New York, N. Y. Producing heat. No. 1,415,780; May 9.
Bowen, William S., New York, N. Y. Producing heat. No. 1,415,781; May 9.
Bowman, Wade W., Yonkers, N. Y., assignor to Continuous Cloth Towel Cabinet Co. Inc., of New York, N. Y. Bearing. No. 1,415,142; May 9.
Brace, Henry P., assignor to Lee Trailer & Body Company, Chicago, Ill. Display stand. No. 1,415,782; May 9.
Braley, Charles L., Chicago, Ill., assignor to American Laundry Machinery Company, Cincinnati, Ohio. Ironing machine. No. 1,415,302; May 9.
Braley, Charles L., Chicago, Ill., assignor to The American Laundry Machinery Company, Cincinnati, Ohio. Yoke-ironing machine. No. 1,415,303; May 9.
Branstrator, Clement G., et al. (See Bayne, George G., assignor.)
Bray, M. William. (See Jagenburg, Robert W., assignor.)
Bray, Oscar E., Buffalo, N. Y., assignor of one-half to G. C. Broadbooks, Attica, N. Y. Planking for bridges, etc. No. 1,415,304; May 9.
Brewerton, Arthur E., Wandsworth Common, London, England, assignor to The Sperry Gyroscope Company, Brooklyn, N. Y. Apparatus for indicating and recording the direction and distance of travel of vehicles. No. 1,415,624; May 9.
Bridell, Charles D., Crisfield, Md. Tongs. No. 1,415,143; May 9.
Bridge, Arthur, Washington, D. C. Method of and apparatus for reducing metals, etc. No. 1,415,516; May 9.
Bridgeport Brass Company. (See Limont, Alexander W., assignor.)
Brill, Max, New York, N. Y. Hand bag. No. 1,415,305; May 9.
Brindle, Richard G., and A. H. Flint, Chicago, Ill., assignor to Corn Products Refining Company. Method of and apparatus for evaporating liquid or semiliquid substances. No. 1,415,783; May 9.
British Westinghouse Electric and Manufacturing Company Limited, The. (See Scanes, Arthur E. L., assignor.)
Broadbooks, George C. (See Bray, Oscar E., assignor.)
Brock, Homer G., Kansas City, Mo. Electrical body heater and steamer. No. 1,415,784; May 9.
Brock, William E., Indianapolis, Ind. Fuel strainer for tanks. No. 1,415,217; May 9.
Brown, Christopher, Charlerol, Pa. Edge-smoothing machine. No. 1,415,785; May 9.
Brown, Francis N., Jr., El Paso, Tex. Lock for radiator caps. No. 1,415,517; May 9.
Brown Hoisting Machinery Company, The. (See Dowd, John P., assignor.)
Brown, James N., assignor of one-half to J. C. Little, Des Moines, Iowa. Latch. No. 1,415,786; May 9.
Brown, Milton F., et al., trustees. (See Pelot, Frank D., assignor.)
Brown, Percy, and F. J. Bostock, Huddersfield, England, assignor to Timken-Detroit Axle Company. Forming gears by grinding. No. 1,415,016; May 9.
Bruder, Edmund, Chicago, assignor to H. I. Koppelman, Wilmette, Ill. Dispenser. No. 1,415,218; May 9.
Bublitz, William F., Elkhorn, Wis. Cramping form for violin bouts. No. 1,415,144; May 9.
Buck, Thomas F., New Castle, Pa. Safety fender for automobiles. No. 1,415,518; May 9.
Buck, Thomas F., New Castle, Pa. Safety fender for automobiles. No. 1,415,519; May 9.
Buckeye Steel Castings Co., The. (See Whitridge, J. C., and Larsen, assignors.)
Buckley, George H., assignor to National Metal Products Company, Indianapolis, Ind. Quick-setting vise. No. 1,415,787; May 9.
Budd, Edward G., Manufacturing Company. (See Lédwinka, Joseph, assignor.)
Buechman, Frederick C., Brooklyn, N. Y. Chart support for recording instruments. No. 1,415,306; May 9.
Buffalo Foundry & Machine Co. (See Engel, Godfrey, Sr., assignor.)
Bugbee & Niles Company. (See King, Rufus, assignor.)
Bulister, Martin, Pittsburgh, Pa. Movable-block puzzle. No. 1,415,625; May 9.
Bullock, Ambrose R., Boston, Mass. Filing cabinet. No. 1,415,307; May 9.
Burgess, Andrew O., Newark, N. J., assignor to A. L. Newman Company, Providence, R. I. Making composite rings. No. 1,415,520; May 9.
Burke Electric Company. (See Bennett, A. M. Elliott, and O'Blenis, assignors.)
Burkey, Harvey M., Plainfield, N. J., and H. M. Schleicher, Boston, Mass., assignors to American Metal Company, Ltd., New York, N. Y. Decomposition of aluminum sulphate. No. 1,415,308; May 9.
Burlin, Porter H., Limestone, N. Y. Coupling device for oil wells. No. 1,415,788; May 9.
Burnham, George A., Saugus, assignor to S. B. Condit, Jr., Brookline, Mass. Motor-starting device. No. 1,415,521; May 9.
Burroughs Adding Machine Company. (See Morton, Allen A., assignor.)
Butters, Robert H. (See Levy, Henri G., assignor.)
Byles, Frank A., Schenectady, N. Y., assignor to General Electric Company. Electric system. No. 1,415,309; May 9.
Cabalka, Frank, Geddes, S. Dak. Power-actuated hay knife. No. 1,415,789; May 9.
Cabot, Samuel, Inc. (See Newbury, Warren C., assignor.)
Cain, Harry N., assignor to The Donley Brothers Company, Cleveland, Ohio. Fireplace damper. No. 1,415,522; May 9.
Caldwell, John C., Miami, Fla. Fishing rod. No. 1,415,310; May 9.
Cameron, Peter, Methil, Scotland. Spraying and distributing nozzle. No. 1,415,523; May 9.
Cameron, Thomas A. (See Kallwitz, Oscar E., assignor.)
Cameron, William W., La Crosse, Wis., assignor, by mesne assignments, to F. Gerlach and A. B. Keller, trustees, Chicago, Ill. Plow. No. 1,415,311; May 9.

Campbell, George W., Columbus, Ohio. Mortising machine. No. 1,415,790; May 9.
Carlson, Charles J., and A. W. Larson, Seattle, Wash. Extensible pole. No. 1,415,145; May 9.
Caronia, Frank J., New York, N. Y. Stepladder. No. 1,415,791; May 9.
Carpmill, John F., and G. W. Troop, assignor to The North & Judd Manufacturing Company, New Britain, Conn. Buckle. No. 1,415,017; May 9.
Carrey, John O., assignor to Carrey Rotary Engine Company, St. Louis, Mo. Turbine. No. 1,415,219; May 9.
Carrey Rotary Engine Company. (See Carrey, John O., assignor.)
Carrico, Noel. Sidney, Mont., assignor of one-half to F. C. Hughes, Evanston, Ill. Mending electric resistance elements. No. 1,415,524; May 9.
Carter, Frank B., assignor to The Indiana Manufacturing Company, Indianapolis, Ind. Pneumatic straw stacker. No. 1,415,792; May 9.
Carter, Walter J. (See Lamp, Arthur W., assignor.)
Casler, John C., Chicopee Falls, Mass. Feeding attachment for stokers and the like. No. 1,415,146; May 9.
Castricum, Martin, Springfield, assignor to The Fisk Rubber Company, Chicopee Falls, Mass. Continuous fabric feed. No. 1,415,312; May 9.
Cattaneo, Giustino, Milan, Italy. Cooling arrangement for exhaust valves of internal-combustion engines. No. 1,415,793; May 9.
Causebrook, Henry F., Greenfield, Mass. Electrical condenser. No. 1,415,220; May 9.
Cavanaugh, William M., New York, N. Y. Making leather yarn and article. No. 1,415,313; May 9.
Central Railway Signal Company. (See Dutcher, Frank, assignor.)
Chain Belt Company. (See Shafer, Samuel, Jr., assignor.)
Charbonneau, Leonard, Ogdensburg, N. Y. Drainage system for vehicles. No. 1,415,794; May 9.
Chemical Construction Company. (See Hechenbleikner, I., and Oliver, assignors.)
Chemidlin, John B., Plainfield, N. J. Electric contact. No. 1,415,795; May 9.
Cheney, Forest, assignor to Cheney Talking Machine Company, Chicago, Ill. Control means for sound-reproducing machines. No. 1,415,525; May 9.
Cheney Talking Machine Company. (See Cheney, Forest, assignor.)
Chikashige, Masumi, and D. Uno, Kyoto, Japan. Recovering selenium and noble metals from electrolytic slimes and the like. No. 1,415,526; May 9.
Christensen, Niels C., Salt Lake City, Utah. Treating lead-zinc sulphide ores. No. 1,415,796; May 9.
Christensen, Niels C., Salt Lake City, Utah. Treating zinc ores and zinc products. No. 1,415,797; May 9.
Church, Harold D., assignor to Packard Motor Car Company, Detroit, Mich. Hydrocarbon motor. No. 1,415,086; May 9.
Cinch Fastener Corporation. (See Vodicka, John, assignor.)
Cincinnati Bickford Tool Company, The. (See Klausmeyer, David C., assignor.)
Clark, James R., and H. A. Flogaus, Toledo, Ohio. Steering gear. No. 1,415,798; May 9.
Clarke, Fannie J., et al., legatees. (See Krogh, Ferdinand W.)
Classified Automatic Directory Company, The. (See Puter, S. A. D., and Eltscher, assignors.)
Coates, Frederick, assignor to Federal Products Company, Cincinnati, Ohio. Die press. No. 1,415,018; May 9.
Colburn, Ernest A. (See Colburn, Herbert C. and E. A.)
Colburn Flotation & Engineering Company, The. (See Colburn, Herbert C. and E. A., assignors.)
Colburn, Herbert C. and E. A., assignors to The Colburn Flotation & Engineering Company, Denver, Colo. Apparatus for the separation of ores by flotation. No. 1,415,314; May 9.
Cole, Clifford E., assignor to L. L. Cole, Birmingham, Ala. Water heater for gas stoves. No. 1,415,527; May 9.
Cole, Linka L. (See Cole, Clifford E, assignor.)
Coleman, Alonzo W., Pittsburgh, Pa. Directionometer. No. 1,415,147; May 9.
Combs, John R., Tipton Ford, Mo. Jig for concentrating ores. No. 1,415,428; May 9.
Condit, Sears B., Jr. (See Burnham, George A., assignor.)
Condon, Ernest L., Medway, assignor to United Soda Fountain Company, Boston, Mass. Detachable-cover construction. No. 1,415,148; May 9.
Condon, Ernest L., Medway, assignor to United Soda Fountain Company, Boston, Mass. Detachable-cover construction. No. 1,415,149; May 9.
Connecticut Telephone & Electric Company, The. (See Donle, Harold P., assignor.)
Conner, Lawrence E., Jackson, Mich. Clutch mechanism. No. 1,415,150; May 9.
Consolidated Car-Heating Company. (See Hynes, Lee P., assignor.)
Conte, Attilio, Buenos Aires, Argentina. Grater. No. 1,415,315; May 9.
Continental Gas Compressing Corporation. (See Schill, E., and Woidick, assignors.)
Continuous Cloth Towel Cabinet Co., Inc., of New York. (See Bowman, Wade W., assignor.)
Converse, Ray V., Kansas City, Mo. Shock absorber. No. 1,415,799; May 9.
Cook, Samuel T., London, Ontario, Canada. Pipe. No. 1,415,221; May 9.
Cook, William E., assignor, by mesne assignments, to The Peerless Insulated Wire and Cable Company, New York, N. Y. Making insulated wire. No. 1,415,151; May 9.
Cook, William E., assignor by mesne assignments, to The Peerless Insulated Wire and Cable Company, New York, N. Y. Making insulated wire. No. 1,415,152; May 9.
Cook, William E., assignor, by mesne assignments, to The Peerless Insulated Wire and Cable Company, New York, N. Y. Making insulated wire. No. 1,415,153; May 9.
Cook, William E., assignor, by mesne assignments, to The Peerless Insulated Wire and Cable Company, New York, N. Y. Making insulated wire. No. 1,415,154; May 9.
Cook, William E., assignor, by mesne assignments, to The Peerless Insulated Wire and Cable Company, New York, N. Y. Making insulated wire. No. 1,415,155; May 9.
Cook, William E., assignor, by mesne assignments, to The Peerless Insulated Wire and Cable Company, New York, N. Y. Making insulated wire. No. 1,415,156; May 9.
Co-Operative Utilities Co., Inc. (See Knapp, David R., assignor.)
Coplin Le Roy, Windber, Pa. Automatic nonset stop for talking machines. No. 1,415,800; May 9.
Corbin, Charles B., Grand Rapids, Mich. Garment-hanger bracket. No. 1,415,316; May 9.
Corle, George F., Bolton, Kans. Animal trap. No. 1,415,801; May 9.
Corn Products Refining Company. (See Brindle, R. G., and Flint, assignors.)
Cosby, James L., Albuquerque, N. Mex. Railway track. No. 1,415,802; May 9.
Courchene, Albert B., Chicago, Ill. Pipe coupling. No. 1,415,157; May 9.
Craighead, James R., Schenectady, N. Y., assignor to General Electric Company. Recording instrument. No. 1,415,528; May 9.
Crain, Patrick M., and J. P. Smith, Hammond, Ind. Tire protector. No. 1,415,803; May 9.
Cramer, Anton M., Arendal, Norway. Hollow concrete block. No. 1,415,222; May 9.
Cramer, William. (See Jacobs, I. M., and Cramer.)
Crawford, John, and F. A. Weaver, Denver, Colo. Expansible bit. No. 1,415,317; May 9.
Crissey, Walter H., Reading, Pa. Storage battery and making it. No. 1,415,804; May 9.
Crompton & Knowles Loom Works. (See Hutchins, George F., assignor.)
Cronenberger, George J., assignor of one-half to H. G. Miller, Chicago, Ill. Combined kitchen table and ironing board. No. 1,415,529; May 9.
Cross, Andrew J., New York, N. Y. Multifocal ophthalmic lens. No. 1,415,318; May 9.
Crossland, Lorena, Philadelphia, Pa. Card game. No. 1,415,019; May 9.
Crossley, George C., Trenton, N. J. Excavating and loading device. No. 1,415,223; May 9.
Crowley, Lorenzo A., Detroit, Mich. Ballot protector. No. 1,415,020; May 9.
Cueny, Benjamin U., assignor to Taber-Prang Art Co., Springfield, Mass. Album or holder for photographs. No. 1,415,429; May 9.
Cuntz, Hermann F., Hartford, Conn., assignor to American Radium Company, New York, N. Y. Hand and indicator for watches and like articles. No. 1,415,158; May 9.
Cutsinger, T. H. (See Lawlor, James M., assignor.)
Cyrus, Thomas H., assignor of one-half to G. W. Goforth, Covelo, Calif. Jack. No. 1,415,805; May 9.
Daggett, George W., North Girard, Pa. Lighting system. No. 1,415,159; May 9.
Daman, Joseph E., St. Louis, Mich. Stovepipe anchor or lock. No. 1,415,806; May 9.
Dankworth, C. H., et al. (See Schluter, William, Jr., assignor.)
Davis, Frank M., Milwaukee, Wis. Feeding and clamping means for metal-working machines. No. 1,415,530; May 9.
Dean, William W., assignor to Splitdorf Electrical Company, Newark N. J. Electric motor for talking machines. No. 1,415,430; May 9.
De Bats, Jean H. L., Whitman, Mass., assignor, by mesne assignments, to Anatmos Metals and Furnace Corporation, New York, N. Y. Making high-speed cutting tools. No. 1,415,021; May 9.
Delano, James K., New York, N. Y. Engine-starting apparatus. No. 1,415,531; May 9.
Delany, Patrick B., South Orange, N. J. Sound-reproducing device. No. 1,415,807; May 9.
Dellinger, Abraham M., Lancaster, Pa. Grinding disk. No. 1,415,808; May 9.
Dennin, E. Augustus. (See Smith, Frank E., assignor.)
Det Tekniske Forsögsaktieselskab. (See Goldschmidt, Rudolf, assignor.)
Deutsch, Adolph M. (See Grossman, Meyer, assignor.)
De Vito, John A., Medford, Mass. Apparatus for raising sunken vessels. No. 1,415,532; May 9.
De Vito, John A., Medford, Mass. Apparatus for raising sunken vessels. No. 1,415,533; May 9.

Diamond Crystal Salt Company. (See Gannon, Joseph J., assignor.)
Dickmeyer, William C., Fort Wayne, Ind. Display stand. No. 1,415,224; May 9.
Dietrich, Charles, et al. (See Mikesell, Azariah H., assignor.)
Dietrich, Joseph, et al. (See Mikesell, Azariah H., assignor.)
Dilworth, Otto L. G., Hartford, Conn. Artificial hand. No. 1,415,809; May 9.
Discher, William G., Wheeling, W. Va., assignor of one-half to F. W. Perrin, Sr. Door check. No. 1,415,225; May 9.
Dobbins, Henry. (See Tilling, J. S., and Dobbins.)
Dodds, Ethan I., Pittsburgh, Pa. Sheet-metal car member. No. 1,415,022; May 9.
Donle, Harold P., assignor to The Connecticut Telephone & Electric Company, Meriden, Conn. Variable resistance. No. 1,415,534; May 9.
Donley Brothers Company, The. (See Cain, Harry N., assignor.)
Donohue, John M., assignor to Eastman Kodak Company, Rochester, N. Y. Making cellulose ethers. No. 1,415,023; May 9.
Dorman, George W., assignor to Sumner Iron Works, Everett, Wash. Roll guard for edging machines. No. 1,415,810; May 9.
Dossor, Frederick M., Doncaster, England. Apparatus for cleaning and separating seeds, grain, and the like. No. 1,415,811; May 9.
Douglas, Harry A., Bronson, Mich. Lamp. No. 1,415,087; May 9.
Dow Chemical Company, The. (See Dow, Herbert H., assignor.)
Dow, Herbert H., assignor to The Dow Chemical Company, Midland, Mich. Apparatus for drying materials. No. 1,415,160; May 9.
Dowd, John P., assignor to The Brown Hoisting Machinery Company, Cleveland, Ohio. Grab bucket. No. 1,415,812; May 9.
Draver, Emil R., Richmond, Ind., assignor to B. F. Gump Company, Chicago, Ill. Feeding device. No. 1,415,319; May 9.
Drescher, Theodore B., assignor to Bausch & Lomb Optical Company, Rochester, N. Y. Multifocal lens and making the same. No. 1,415,535; May 9.
Drohan, Thomas E., Schenectady, N. Y., assignor to General Electric Company. Contact finger and making the same. No. 1,415,320; May 9.
Drummond, Arthur, Ryde's Hill, near Guildford, England. Lathe body. No. 1,415,227; May 9.
Drummond, Arthur, Ryde's Hill, near Guildford, England. Lathe slide. No. 1,415,226; May 9.
Drummond, Arthur, Ryde's Hill, near Guildford, England. Lathe. No. 1,415,228; May 9.
Drummond, Arthur, Ryde's Hill, near Guildford, England. Mandrel and associated member of lathes. No. 1,415,229; May 9.
Dubois, Willie and Z., Biddeford, Me. Loom picker. No. 1,415,161; May 9.
Dubois, Zoel. (See Dubois, Willie and Z.)
Dumbolton, Perry S. (See Bounds, R. E., and Dumbolton.)
Dunn, Joseph F., New York, N. Y. (Reissue.) No. 15,348; May 9.
Dutcher, Frank, Versailles, assignor to Central Railway Signal Company, Pittsburgh, Pa. Railway signal torpedo. No. 1,415,813; May 9.
Dye, Glen M., assignor to Photographic Appliances Corporation, Minneapolis, Minn. Photographic printing and numbering machine. No. 1,415,230; May 9.
Dyer, Harry W., East Orange, N. J. Liquid-cooling apparatus. No. 1,415,231; May 9.
Dyer, Ivan, Indianapolis, Ind. Vehicle signal device. No. 1,415,814; May 9.
Ealy, Clarence W., Black Lick, Ohio. Door. No. 1,415,815; May 9.
Eastern Potash Corporation. (See Meadows, T. C., and Ruhm, assignors.)
Eastman Kodak Company. (See Donohue, John M., assignor.)
Eastman Kodak Company. (See Jones, John G., assignor.)
Eastman Kodak Company. (See Seel, Paul C., assignor.)
Eby, Eugene D., Pittsfield, Mass., assignor to General Electric Company. Electrical apparatus. No. 1,415,321; May 9.
Edgar Steel Seal & Mfg. Co., The. (See Edgar, William K., assignor.)
Edgar, William K., assignor to The Edgar Steel Seal & Mfg. Co., Lawrence, Kans. Milk-can seal. No. 1,415,431; May 9.
Edmundson, Millard, San Francisco, Calif. Erasing shield. No. 1,415,088; May 9.
Edwards, Edward B. (See Smith, C. H., and Edwards.)
Edwards, Francis E., assignor to Stromberg Motor Devices Company, Chicago, Ill. Fuel-feed system. No. 1,415,162; May 9.
Edwards, Francis R., Jacksonville, Fla. Grain bin. No. 1,415,816; May 9.
Edwards, William J., Geneva, Ohio. Water heater. No. 1,415,432; May 9.
Egly, John C., Philadelphia, Pa. Knitting-machine needle. No. 1,415,322; May 9.
Eiermann, William, Brooklyn, N. Y. Ash collecting and dumping machine. No. 1,415,024; May 9.
Ekwall, Nils R. G., Halmstad, Sweden. Protective glasses for flyers, casters, welders, etc. No. 1,415,536; May 9.
Elgin Auto Tool Company. (See Gielow, Harry C., assignor.)
Elias, Elias J., Omaha, Nebr. Wire-stretching machine. No. 1,415,089; May 9.
Elliott, Francis M., Gardena, Calif. Traffic signal for motor vehicles. No. 1,415,817; May 9.
Elliott, William B. (See Bennett, A. M., Elliott, and O'Blenis.)
Ellis, Carleton, and B. V. T. Stewart, Montclair, N. J. Manufacture of arsenic acid. No. 1,415,323; May 9.
Ellis, Carleton, Montclair, N. J., assignor, by mesne assignments, to Standard Oil Company. Cracking oils under pressure. No. 1,415,232; May 9.
Ellis, Ridsdale, Oak Park, Ill. Ice manufacture. No. 1,415,325; May 9.
Elmstrom, Anshelm B., Malden, Mass. Combined shoe stretcher and tree. No. 1,415,537; May 9.
Eltscher, Alois F. (See Puter, S. A. D., and Eltscher.)
Engel, Godfrey, Sr., Brooklyn, assignor to Buffalo Foundry & Machine Co., Buffalo, N. Y. Saccharine trap. No. 1,415,818; May 9.
Engel, Henri, Hatch End, England. Apparatus for the extraction of oils and the like. No. 1,415,433; May 9.
English & Mersick Co., The. (See Kaimer, R. V., and Ritter, assignors.)
Ennis, Lawrence, Linthorpe, England, and A. Jack, Motherwell, Scotland. Overhead traveling crane. No. 1,415,163; May 9.
Erdahl, Bernard F., Duluth, Minn. Alginate composition and article. No. 1,415,850; May 9.
Erdahl, Bernard F., Duluth, Minn. Producing gelling metal alginates and product derived therefrom. No. 1,415,849; May 9.
Erdahl, Bernard F., Duluth, Minn. Rendering concrete resistant to waters charged with soluble compounds and product thereof. No. 1,415,324; May 9.
Essex Motors. (See Gurke, John A., assignor.)
Estep, William G., Duquesne, A. E. Hamilton, and E. L. Simonson, Homestead, Pa. Fluting machine. No. 1,415,819; May 9.
Evaporating and Drying Machinery Company, The. (See Miller, John C., assignor.)
Eynon, Margaret Y. (See Eynon, Thomas M., assignor.)
Eynon, Thomas M., assignor to M. Y. Eynon, Philadelphia, Pa. Flat-tire indicator. No. 1,415,820; May 9.
Fabart Instrument Company. (See Swanberg, Julius, assignor.)
Fahrenwald, Frank A., assignor to The Rhotanium Company, Cleveland, Ohio. Composition of matter for platinum substitute in chemical apparatus and other uses and making same. No. 1,415,233; May 9.
Farmer, Clyde C., Edgewood, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Car door and brake controlling device. No. 1,415,821; May 9.
Federal Products Company. (See Coates, Frederick, assignor.)
Fegley, Thomas J., and W. S. Snyder, assignors to North Bro's. M'f'g. Co., Philadelphia, Pa. Screw driver. No. 1,415,822; May 9.
Fehring, Emil A., Chicago, Ill. Stop and turn signal for vehicles. No. 1,415,538; May 9.
Fenton, Cecil, Brocton, England. Target for small-arms practice. No. 1,415,823; May 9.
Ferngren, Enoch T., Beaver, Pa. Treating and working glass. No. 1,415,824; May 9.
Ferrell, George W., Appleton, Tenn. Harrow. No. 1,415,825; May 9.
Fesler, Milton A., Oakland, Calif., assignor to Petroleum Heat and Power Company. Burner. No. 1,415,434; May 9.
Fessenden, Reginald A., Brookline, Mass., assignor to Submarine Signal Company, Portland, Me. Method and apparatus for submarine signaling. No. 1,415,539; May 9.
Fesser, Henry W., Sacramento, Calif. Card holder. No. 1,415,540; May 9.
Fey, Edmund C., San Francisco, Calif. Self-cocking pistol. No. 1,415,326; May 9.
Finch, Frank A. (See Parks, F. M., and Finch.)
Finkhousen, Carey C., Wren, Ohio. Wrench. No. 1,415,826; May 9.
Finley, Earl, Detroit, Mich. Mop handle. No. 1,415,827; May 9.
Firestone Tire and Rubber Company, The. (See Pade, Max H., assignor.)
Firestone Tire and Rubber Company, The. (See Riblet, Lewis C., assignor.)
Fisher, Ernest F., Essington, Pa. Refrigerating apparatus. No. 1,415,828; May 9.
Fisk Rubber Company, The. (See Castricum, Martin, assignor.)
Fisk Rubber Company, The. (See Jameson, William, assignor.) (Reissue.)
Fitch, Benjamin F., Evanston, Ill. Device for connecting loads to elevating cables. No. 1,415,090; May 9.
Fitzgerald, Arthur E., Wellington, New Zealand. Thermostatic circuit closer for laundry irons. No. 1,415,829; May 9.
Flett, Lawrence H. (See Ralph W. M., and Flett.)
Flint, Amos H. (See Brindle, R. G., and Flint.)

Flogaus, Howard A. (See Clark, J. R., and Flogaus.)
Folsom, Robert H., Buffalo, assignor to Worthington Pump and Machinery Corporation, New York, N. Y. Internal-combustion engine and controlling combustion therein. No. 1,415,025; May 9.
Fonos, Peter J., New Richmond, Wis. Permutation padlock. No. 1,415,327; May 9.
Ford, Hannibal C., New York, N. Y., assignor to Ford Instrument Company, Inc. Power transmission. No. 1,415,164; May 9.
Ford Instrument Company. (See Ford, Hannibal C., assignor.)
Forseth, Alfred E., Hardwick, Minn. Antiskid-chain hook. No. 1,415,328; May 9.
Forster, Adam., assignor of one-half to J. J. Mount, Pittsburgh, Pa. Back check and controller for artificial legs. No. 1,415,329; May 9.
Frankel, Adolph, New York, N. Y. Machine for setting snap fasteners. No. 1,415,330; May 9.
Franklin, Charles B., Pineville, La. Burial vault. No. 1,415,435; May 9.
Fraser, W. Simon, Maricapolis, Manitoba, Canada. Automobile sled. No. 1,415,165; May 9.
Frazer, J. E. (See Bohan, Patrick J., assignor.)
Fredel, Michael M., and W. Bosanko, Brooklyn, N. Y. Agitator. No. 1,415,830; May 9.
Fredericks, Harry A., Port Angeles, Wash. Infant's merry-go-round. No. 1,415,831; May 9.
Free, John W., Woodlawn, assignor to Jones & Laughlin Steel Company, Pittsburgh, Pa. Tin pot. No. 1,415,166; May 9.
Frisbie, William J., assignor to Justrite Manufacturing Company, Chicago, Ill. Fuel-feed apparatus. No. 1,415,026; May 9.
Fritchle, Oliver P., Denver, Colo. Battery. No. 1,415,541; May 9.
Fuchs, Anthony L. (See Fuchs, Edward L. and A. L.)
Fuchs, Edward L. and A. L., St. Louis, Mo. Garment protector for auto seats. No. 1,415,626; May 9.
Fuchs, Ernest, Paris, assignor to L. Renault, Billancourt, Seine, France. Valve mechanism for internal-combustion engines. No. 1,415,167; May 9.
Fuegel, Gottlob, and H. Schmid, assignors, by mesne assignments, to Apollo Magneto Corporation, Brooklyn, N. Y. Gear construction. No. 1,415,542; May 9.
Galion Iron Works & Mfg. Co., The. (See Arndt, Franklin E., assignor.)
Gamble, August, Pasadena, assignor to American Gas Appliance Company, Los Angeles, Calif. Floor furnace. No. 1,415,234; May 9.
Gannon, Joseph J., assignor to Diamond Crystal Salt Company, St. Clair, Mich. Carton. No. 1,415,543; May 9.
Garaca, Frank, Cleveland, Ohio. Battery. No. 1,415,832; May 9.
Gardner, Edward B., Beloit, Wis. Grinding wheel. No. 1,415,331; May 9.
Garnett, Lemuel E., Tacoma, Wash. Jewel-setting machine. No. 1,415,235; May 9.
Gautereaux, Standley, Los Angeles, Calif. Excavating apparatus. No. 1,415,544; May 9.
Gauthier, Adelard J., assignor to Packard Motor Car Company, Detroit, Mich. Rod and making same. No. 1,415,091; May 9.
Gebert, Albert E. (See Antoine, A. D., and Gebert.)
Gebhard, Conrad, Munich, Germany, assignor to Firm "Asfag" Aktiengesellschaft, Glarus, Switzerland. Covering device for folding hoods of vehicles. No. 1,415,332; May 9.
Gebhardt, Alfred H., Milwaukee, Wis. Mold for battery connecters. No. 1,415,027; May 9.
Geier, P. A., Company, The. (See Robertson, Frank E., assignor.)
General Bond and Share Company. (See Stevenson, Earl P., assignor.)
General Electric Company. (See Byles, Frank A., assignor.)
General Electric Company. (See Craighead, James R., assignor.)
General Electric Company. (See Drohan, Thomas E., assignor.)
General Electric Company. (See Eby, Eugene D., assignor.)
General Electric Company. (See Heisler, Charles L., assignor.)
General Electric Company. (See Junggren, Oscar, assignor.)
General Electric Company. (See O'Neil, James A., assignor.)
General Electric Company. (See Rice, Chester S., assignor.)
General Electric Company. (See Tuttle, James N., assignor.)
General Electric Company. (See Webster, Samuel T., assignor.)
General Motors Corporation. (See White, John W., assignor.)
Genovese, Rosario, New York, N. Y. Toy flying machine. No. 1,415,333; May 9.
George, Spiro, Milwaukee, Wis. Rail splice. No. 1,415,545; May 9.
Gerlach, Fred, et al., trustees. (See Cameron, William W., assignor.)
Germann, Albert, and E. Lang, St. Gallen, Switzerland. Mudguard for wheels of vehicles. No. 1,415,436; May 9.
Giambiasi, Giovanni E., assignor to H. S. Levy and L. F. Levy, Philadelphia, Pa. Precision instrument. No. 1,415,627; May 9.
Gibbons, Willis A., New York, N. Y., assignor to Revere Rubber Company. Covering tennis balls. No. 1,415,438; May 9.
Gibbons, Willis A., New York, N. Y., assignor to Revere Rubber Company. Making tennis balls and like hollow articles. No. 1,415,437; May 9.
Gibbs, Charles, deceased; Anna G. Tobin, administratrix, New York, N. Y. Coin-deposit receptacle. No. 1,415,168; May 9.
Gibbs, Ralph A., assignor to L. J. Kolb, trading as Safetee Glass Company, Philadelphia, Pa. Headlight for vehicles. No. 1,415,236; May 9.
Gibson, Marshall D., Webster Groves, Mo. Churn. No. 1,415,334; May 9.
Gielow, Harry C., Chicago, assignor to Elgin Auto Tool Company, Elgin, Ill. Tire-valve tool. No. 1,415,628; May 9.
Gilbert, Tilmon I., Los Angeles, Calif. Trunk appliance. No. 1,415,169; May 9.
Gildemeister, Alphonse, Paris, France. Treatment of ores of vanadium. No. 1,415,028; May 9.
Ginsburg, Henrietta, El Paso, Tex. Perspectoscope. No. 1,415,833; May 9.
Goforth, George W. (See Cyrus, Thomas H., assignor.)
Goldschmidt, Rudolf, Berlin, Germany, assignor to Det Tekniske Forsögsaktieselskab, Ordrup, Charlottenlund, Denmark. Mechanism for converting rotary into reciprocatory motion. No. 1,415,335; May 9.
Goodart, Gus, Latuda, Utah. Switch-point connector. No. 1,415,336; May 9.
Goodrich, B. F., Company, The. (See Pierce, Robert C., assignor.)
Goodyear, Lloyd E., Cedar Rapids, Iowa. Loose-leaf binder. No. 1,415,834; May 9.
Goodyear Tire & Rubber Company, The. (See Snyder, Robert W., assignor.)
Gordon, James C., Calgary, Alberta, Canada. Pin-point protector. No. 1,415,835; May 9.
Grant, Harlo R., Chicago, Ill. Method for filing printing plates. No. 1,415,629; May 9.
Gray, Joseph P., Los Angeles, Calif. Wind deflector. No. 1,415,836; May 9.
Gray, William H., and J. W. Howlett, Lymington, England. Making piston rings and die for same. No. 1,415,439; May 9.
Green, Charles F., Defiance, assignor to Industrial Research Corporation, Toledo, Ohio. Seat spring. No. 1,415,837; May 9.
Greenwood, Frank E., New Rochelle, N. Y. Apparatus for determining moisture. No. 1,415,546; May 9.
Grein, Leonard W., Cheney, Wash. Grease-cup tool. No. 1,415,440; May 9.
Grieve, David, Detroit, Mich. Drafting instrument. No. 1,415,547; May 9.
Griffiths, Harry A., Birmingham, and R. H. Griffiths, Sutton Coldfield, England. Press for operating on metal sheets. No. 1,415,838; May 9.
Griffiths, Richard H. (See Griffiths, Harry A. and R. H.)
Griggs, John O., Youngstown, Ohio. Front wall for open-hearth furnaces. No. 1,415,630; May 9.
Grikscheit, William, Detroit, Mich. Priming cup. No. 1,415,548; May 9.
Grimm, August, Newark, N. J. Bookmark. No. 1,415,631; May 9.
Grossman, Meyer, assignor of one-half to A. M. Deutsch, New York, N. Y. Extension table. No. 1,415,549; May 9.
Grover, Albert D., New York, N. Y., assignor, by mesne assignments, to Autosales Corporation. Coin-controlled vending machine. No. 1,415,337; May 9.
Gruenberg, Raoul J., San Francisco, Calif. Side curtain for automobiles. No. 1,415,441; May 9.
Guhl, August C., Chicago, Ill. Nutcracker. No. 1,415,338; May 9.
Gump, B. F., Company. (See Draver, Emil R., assignor.)
Gurke, John A., assignor to Essex Motors, Detroit, Mich. Bonnet corner pad for automobiles. No. 1,415,632; May 9.
Gurney, Harold A., Winnipeg, Manitoba, Canada. Paper cabinet. No. 1,415,170; May 9.
Gustafson, Charles S., Philadelphia, Pa. Abrading device. No. 1,415,171; May 9.
Guttly, Alphonse, Wisconsin Rapids, Wis. Cutting tool and holder. No. 1,415,237; May 9.
Haase, Adolph L., New London, Wis. Sawmill dog. No. 1,415,172; May 9.
Hadaway, William S., Jr., New Rochelle, N. Y. Electric heating apparatus. No. 1,415,550; May 9.
Hall, Charles H., Chicago, Ill. Heel. No. 1,415,442; May 9.
Hall, Peter P-G., Philadelphia, Pa. Milling cutter. No. 1,415,339; May 9.
Hall, Samuel N., assignor to M. E. Layne, Los Angeles, Calif. Well mechanism. No. 1,415,551; May 9.
Hall, Samuel N. (See Layne, Mahlon E., assignor.)
Haller, Albin, Paris, France, assignor to Societe Fabriques de Produits Chimiques de Thann et de Mulhouse, Mulhouse, Alsace, France. Manufacture of borneol. No. 1,415,340; May 9.

Hallmark, Elmer C., Mission, Tex., assignor to G. M. Swift, Okmulgee, Okla. Increasing the quality and volume of oil in wells and removing the oil therefrom. No. 1,415,552; May 9.
Hamilton, Alfred E. (See Estep, W. G., Hamilton, and Simonson.)
Hamm, William S., Hubbard Woods, Ill., assignor to The Adams & Westlake Company. Lantern. No. 1,415,634; May 9.
Hamm, William S., Hubbard Woods, Ill., assignor to The Adams & Westlake Company. Lantern. No. 1,415,635; May 9.
Hamm, William S., Hubbard Woods, and F. A. Schuetz, Chicago, Ill., assignors to The Adams & Westlake Company. Lantern. No. 1,415,633; May 9.
Handley, George F. (See Hess, E. B., and Handley.)
Hansen, Charles C., Easton, Pa., assignor to Ingersoll-Rand Company, Jersey City, N. J. Oil-burning forge. No. 1,415,553; May 9.
Hanson, Bengt M. W., Hartford, Conn. Metal-working machine. No. 1,415,341; May 9.
Hanson, Bengt M. W., Hartford, Conn. Work holder. No. 1,415,342; May 9.
Hanson, William F., San Francisco, Calif. Clock frame. No. 1,415,636; May 9.
Harden, Jessie F., Brundidge, Ala. Cultivator. No. 1,415,637; May 9.
Harden, Jessie F., Brundidge, Ala. Cultivator. No. 1,415,638; May 9.
Hargreaves, Harold, Burnley, England. Water heater. No. 1,415,343; May 9.
Harris, Alfred E., et al. (See Wale, Alfred E., assignor.)
Haskell, Samuel, Brooklyn, N. Y. Mechanical doll. No. 1,415,344; May 9.
Hatch, Arthur G., Duluth, Minn. Floor construction. No. 1,415,554; May 9.
Hatch, Hyatt C. (See Parks, F. M., and Finch, assignors.)
Hatchett, Marvin P., Durant, Okla. Heating apparatus. No. 1,415,345; May 9.
Hawthorne, Ellsworth A., Bridgeport, Conn. Lamp. No. 1,415,555; May 9.
Hayes, Benjamin P., Kansas City, Mo. Key. No. 1,415,029; May 9.
Hayward, Carle R., Quincy, and H. M. Schleicher, Boston, Mass., assignors to American Metal Company, Ltd., New York, N. Y. Treatment of slate. No. 1,415,346; May 9.
Head, Allan J., et al. (See Pollock, John L., assignor.)
Hechenbleikner, Ingenuin, and T. C. Oliver, Charlotte, N. C., assignors to Chemical Construction Company. Method of and apparatus for concentrating acid. No. 1,415,443; May 9.
Heidbrink, Jay A., Minneapolis, Minn. Mouth prop. No. 1,415,347; May 9.
Heinzelman, John C., Chicago, Ill. Elevator-door construction. No. 1,415,639; May 9.
Heisler, Charles L., Schenectady, N. Y., assignor to General Electric Company. Gearing. No. 1,415,556; May 9.
Heller, Robert, Brooklyn, N. Y., assignor to Stanley Tire & Rubber Corporation of Delaware. Tire mold. No. 1,415,557; May 9.
Hemphill Company. (See Landry, Aldei, assignor.)
Henderson, Morris O., Story City, Iowa. Dumping device and process. No. 1,415,640; May 9.
Hendey Machine Company. (See Bouillon, Constant, assignor.)
Hengesbaugh, Lewis M. (See McQueen, Francis W., assignor.)
Henninger, Ludwig, assignor to Badische Maschinenfabrik & Eisengiesserei vormals G. Sebold und Sebold & Neff, Durlach, Germany. Match-making machine. No. 1,415,641; May 9.
Hermanns, Hubert, Berlin-Pankow, Germany. Casting apparatus. No. 1,415,348; May 9.
Hersperger, Elizabeth S., Washington, D. C. Garter. No. 1,415,030; May 9.
Hess, Edward B., and L. C. Myers, Brooklyn, assignors to Royal Typewriter Company, Inc., New York, N. Y. Carriage for typewriting machines. No. 1,415,031; May 9.
Hess, Edward B., and L. C. Myers, Brooklyn, assignors to Royal Typewriter Company, Inc., New York, N. Y. Carriage-release mechanism for typewriting machine. No. 1,415,032; May 9.
Hess, Edward B., Manhattan Beach, and G. F. Handley, Glendale, assignors to Royal Typewriter Company, Inc., New York, N. Y. Typewriting machine. No. 1,415,558; May 9.
Hessian, Dennis C., St. Louis, Mo. Automatic air-brake-releasing mechanism. No. 1,415,173; May 9.
Hibner, Frank, North Platte, Nebr. Wheel shoe for automobiles. No. 1,415,444; May 9.
Hickman, George H., Jamestown, Ind. Water-replenishing device for storage batteries. No. 1,415,559; May 9.
Hill, Harry W., assignor to American Optical Company, Southbridge, Mass. Lens-blocking machine. No. 1,415,560; May 9.
Hill, Peter W., Dorchester, Mass. Excavator. No. 1,415,561; May 9.
Hillyard, Newton S., St. Joseph, Mo. Flexed blotter holder. No. 1,415,642; May 9.
Hipwell, Harry T., Pittsburgh, Pa. Battery. No. 1,415,033; May 9.
Hodges, Alexander A., Headland, Ala. Fertilizer distributor. No. 1,415,643; May 9.
Hoehnen, John C., et al. (See Bayne, George G., assignor.)
Hoelscher, Louis E., St. Louis, Mo. Unloading device relative to unloading fodder. No. 1,415,034; May 9.
Hoffman, Curtis C., Chagrin Falls, and J. McCaslin, assignors to The Wellman-Seaver-Morgan Company, Cleveland, Ohio. Method of and apparatus for preventing the accumulation of sticky condensed products of a gas producer upon the relatively movable engaging surfaces of the fuel-feeding mechanism applied to a gas producer. No. 1,415,238; May 9.
Hoffman, John H., assignor to Theo. Tiedemann & Sons, Inc., New York, N. Y. Gumming device for ribbon-cutting machines. No. 1,415,562; May 9.
Hoffman, John H., assignor to Theo. Tiedemann & Sons, Inc., New York, N. Y. Gumming device for ribbon-cutting machines. No. 1,415,563; May 9.
Hoffmann-La Roche Chemical Works, The. (See Preiswerk, Ernst, assignor.)
Hoffman, Louis, New York, N. Y. Follower block for card-index cases. No. 1,415,035; May 9.
Holahan, John J., Norfolk, Va. Mechanical construction of electrical motors. No. 1,415,564; May 9.
Holbourns, John G., assignor to Linotype and Machinery Limited, London, England. Apparatus for casting type bars or slugs. No. 1,415,445; May 9.
Holifield, Joseph A., Mobile, Ala. Arc-current regulator. No. 1,415,565; May 9.
Hollister, John R. (See Palmer, C. L., and Hollister.)
Holmes, Andrew J., Tacoma, Wash. Winding mechanism. No. 1,415,644; May 9.
Holmquist, August, Monroe, Wash. Stove. No. 1,415,349; May 9.
Holterud, Samuel, Duluth, Minn. Wind wheel. No. 1,415,645; May 9.
Hoopes, William, assignor to Aluminum Company of America, Pittsburgh, Pa. Charge or block for use in practicing processes involving chemical reactions, more particularly reactions between solid and gaseous bodies, and making the same. No. 1,415,036; May 9.
Hoopes, William, assignor to Aluminum Company of America, Pittsburgh, Pa. Apparatus for making aluminum nitride and other chemical substances. No. 1,415,446; May 9.
Hopps, Carl W. (See Hopps, John J. and C. W.)
Hopps, John J., Lawton, Okla., and C. W. Hopps, Westfield, N. J. Combined horn and return ball. No. 1,415,350; May 9.
Horrocks, Walter E., Lakewood, Ohio. Machine for making beads. No. 1,415,566; May 9.
Horton, Allen A., assignor to Burroughs Adding Machine Company, Detroit, Mich. Adding machine. No. 1,415,174; May 9.
Hose, Henry G., Brooklyn, N. Y. Butt-end interlocking composition shingle. No. 1,415,175; May 9.
Hossfeld, Paul, Bad Harzburg, Germany. Ventilating-hood-lifting device. No. 1,415,567; May 9.
Howard, Frank A., and C. I. Robinson, Westfield, and J. M. Jennings, Elizabeth, N. J., assignors to Standard Oil Company, Bayonne, N. J. Prevention of evaporation of stored liquids. No. 1,415,351; May 9.
Howard, Frank A., Westfield, and J. M. Jennings, Elizabeth, assignors to Standard Oil Company, Bayonne, N. J. Prevention of evaporation. No. 1,415,352; May 9.
Howard, Lorenzo G., Providence, R. I. Spark plug. No. 1,415,447; May 9.
Howden, George W., Pompey, N. Y. Automatic release coupling. No. 1,415,646; May 9.
Howlett, John W. (See Gray, W. H., and Howlett.)
Hryniewich, Dmitro, Livermore, Pa. Grain separator. No. 1,415,568; May 9.
Hudson, Leonidas S., Newark, N. J. Overhead carrier. No. 1,415,448; May 9.
Huff, Leslie R., Phillipsburg, assignor to Ingersoll-Rand Company, Jersey City, N. J. Pressure regulator for turbocompressors. No. 1,415,647; May 9.
Hughes, Frank C. (See Carrico, Noel, assignor.)
Hughes, John T., Casper, Wyo. Aeroplane control. No. 1,415,176; May 9.
Hultman, Carl A. W., Stockholm, Sweden. Selector switch. No. 1,415,648; May 9.
Hunt, Ormond E., assignor to Packard Motor Car Company, Detroit, Mich. Propeller drive for hydrocarbon motors. No. 1,415,092; May 9.
Hupp, Irvin, Chicago, Ill. Transmission mechanism. No. 1,415,239; May 9.
Hurley, James, St. Paul, Minn. Trap. No. 1,415,093; May 9.
Hurt, George F., assignor, by mesne assignments, to J. Hurt, Atlanta, Ga. Sulphuric-acid manufacture. No. 1,415,353; May 9.
Hurt, Joel. (See Hurt, George F., assignor.)
Hutchins, George F., Worcester, Mass., assignor to Crompton & Knowles Loom Works. Loom-needle mechanism. No. 1,415,177; May 9.
Huyck, F. C., & Sons. (See Wilson, Ezekiel J., assignor.)
Hynes, Lee P., assignor to Consolidated Car-Heating Company, Albany, N. Y. Resistance unit. No. 1,415,240; May 9.
Imschweiler, John, Inglewood, Calif. Automatic valve for chicken fountains and the like. No. 1,415,178; May 9.

Indiana Manufacturing Company, The. (See Carter, Frank B., assignor.)
Indiana Manufacturing Company, The. (See Van Deventer, William O., assignor.)
Indianapolis Manufacturing Company. (See Nordyke, Horace W., assignor.)
Industrial Research Corporation. (See Green, Charles F., assignor.)
Ingersoll-Rand Company. (See Hansen, Charles C., assignor.)
Ingersoll-Rand Company. (See Huff, Leslie R., assignor.)
Ingersoll-Rand Company. (See Parsons, Frederick W., assignor.)
Inouye, James M., Ridgefield Park, N. J. Polishing composition or mixture. No. 1,415,570; May 9.
International Coal Products Corporation. (See Smith, C. H., and Edwards, assignors.)
International Coal Products Corporation. (See Smith, Charles H., assignor.)
Jack, Alexander. (See Ennis, L., and Jack.)
Jackson, Daniel D., Brooklyn, N. Y. Recovery of potash from cement mixtures. No. 1,415,572; May 9.
Jacobs, Isidor M., Kansas City, and W. Cramer, St. Louis, assignors to Truck, Tractor, and Manufacturing Company, St. Louis, Mo. Lock for movable parts. No. 1,415,354; May 9.
Jacobs, Isidor M., Kansas City, and W. Cramer, St. Louis, assignors to Truck, Tractor, and Manufacturing Company, St. Louis, Mo. Belt cutter. No. 1,415,355; May 9.
Jagenburg, Robert W., assignor to M. W. Bray, Utica, N. Y. Machine for making shingles. No. 1,415,649; May 9.
James Manufacturing Company. (See Olson, John B., assignor.)
Jameson, William, Springfield, assignor to The Fisk Rubber Company, Chicopee Falls, Mass. Apparatus for making strand fabric. (Reissue.) No. 15,349; May 9.
Jandasek, Joseph, assignor to Paige-Detroit Motor Car Company, Detroit, Mich. Tractor. No. 1,415,356; May 9.
Janis, Theodore T., Chicago, Ill. Templet-filing jaws. No. 1,415,573; May 9.
Jarvis, Herbert C., Portland, Oreg., assignor to Pacific Car & Foundry Co., Seattle, Wash. Pivoted-bunk logging car. No. 1,415,357; May 9.
Jennings, James M. (See Howard, F. A., and Jennings.)
Jensen, William G., Bartlesville, Okla. Pump jack. No. 1,415,037; May 9.
Johnson, Arthur A., assignor, by mesne assignments, to Underwood Typewriter Company, New York, N. Y. Typewriting machine. No. 1,415,241; May 9.
Johnson Automobile Sheet Metal Works. (See Scott, E. Harrison, assignor.)
Johnson, Charles, Highland Park, and F. G. Meyer, Detroit, Mich. Steering mechanism. No. 1,415,095; May 9.
Johnson, Fred L., Binghamton, N. Y., assignor to Mid-East Specialty Company, Inc. Bag. No. 1,415,450; May 9.
Johnson, Henry E., Fort Bragg, Calif. Glass-cutting square. No. 1,415,650; May 9.
Johnson, Philip C., Chicago, Ill. Mandolin attachment for pianos. No. 1,415,574; May 9.
Johnson, Thomas J. (See Nordmark, Herman, assignor.)
Johnson, Walter A., Rochester, assignor to Pioneer Manufacturing Company, Albert Lea, Minn. Bug exterminator. No. 1,415,358; May 9.
Johnson, Walter A., Rochester, assignor to Pioneer Manufacturing Company, Albert Lea, Minn. Potato-bug exterminator. No. 1,415,359; May 9.
Johnson, William C. (See Robinson, Daniel C., assignor.)
Johnston, James G., Jr., Chicago, Ill., assignor to Warren Featherbone Company, Three Oaks, Mich. Display stand for ribbons and the like. No. 1,415,242; May 9.
Jones, Alfred B., Farmington, Mo. Wheel puller. No. 1,415,451; May 9.
Jones & Laughlin Steel Company. (See Free, John W., assignor.)
Jones, David B., Chicago, Ill. Ore briquette. No. 1,415,094; May 9.
Jones, Edward T., New Orleans, La. Radiocontrolling device. No. 1,415,179; May 9.
Jones, Ernest H., et al. (See Wale, Alfred E., assignor.)
Jones, John G., assignor to Eastman Kodak Company, Rochester, N. Y. Making and sealing packages. No. 1,415,038; May 9.
Jones, Joseph E., Waltham, Mass. Diaphragm attachment. No. 1,415,360; May 9.
Jones, Martin, assignor of one-half to J. S. MacLaughlin, Philadelphia, Pa. Reproducer. No. 1,415,361; May 9.
Jones, Theodoric, Dallas, Tex. Traffic signal. No. 1,415,362; May 9.
Jonson, Karl J. A. (See Lundquist, A. G., and Jonson.)
Junggren, Oscar, Schenectady, N. Y., assignor to General Electric Company. Elastic-fluid turbine. No. 1,415,571; May 9.
Justrite Manufacturing Company. (See Frisbie, William J., assignor.)
Kahler, Venice A. H., Pasadena, Calif. Spray sprinkler. No. 1,415,452; May 9.
Kainer, Richard V., New Haven, Conn., and C. E. Ritter, Chicago, Ill., assignors to The English & Mersick Co., New Haven, Conn. Latch for vehicle doors. No. 1,415,839; May 9.
Kallwitz, Oscar E., assignor of one-half to T. A. Cameron, Chicago, Ill. Explosive engine. No. 1,415,096; May 9.
Kamenstein, Meyer, New York, N. Y. Ash sifter. No. 1,415,575; May 9.
Kamm, Oliver, assignor to American Writing Paper Company, Holyoke, Mass. Emulsification of resin soap in water. No. 1,415,363; May 9.
Karle, John D., Roselle Park, N. J., assignor to The Singer Manufacturing Company. Lighting system for power tables. No. 1,415,453; May 9.
Kassler, Adolph, assignor to American Car and Foundry Company, New York, N. Y. Dumping car. No. 1,415,097; May 9.
Keckeis, José, Portland, Oreg. Game of skill. No. 1,415,364; May 9.
Keckeis, José, Portland, Oreg. Toy shooting gallery. No. 1,415,365; May 9.
Keller, Arnold B., et al., trustees. (See Cameron, William W., assignor.)
Keller, John F., Pearl, assignor to C. F. Anderson and J. R. Mitchell, Jacksonville, Ill. Dirigible headlight. No. 1,415,243; May 9.
Kendechy, Andrew, Cleveland, Ohio. Lock. No. 1,415,651; May 9.
Kennedy, David S., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical casting machine. No. 1,415,454; May 9.
Kennedy, David. (See Stanmore, J., and Kennedy.)
Kennedy, George C., Waterloo, Iowa. Sliding knockdown freight carrier. No. 1,415,244; May 9.
Kennedy, James E., Washington, D. C. Gas stove. No. 1,415,576; May 9.
Kennedy, James J., New York, N. Y. Picture puzzle device. No. 1,415,245; May 9.
Kindl, Joseph, St. Louis, Mo. Hand shaft-turning device. No. 1,415,039; May 9.
King, Rufus, Plainville, assignor to Bugbee & Niles Company, North Attleboro, Mass. Ribbon bracelet. No. 1,415,366; May 9.
Kirkpatrick, Harry J., assignor to The Boeckh Company, Limited, Toronto, Ontario, Canada. Brush. No. 1,415,652; May 9.
Kirnbauer, Michael, Forest Park, Ill. Fruit and vegetable cutter. No. 1,415,449; May 9.
Klausmeyer, David C., assignor to The Cincinnati Bickford Tool Company, Cincinnati, Ohio. Sectional inspective nut. No. 1,415,840; May 9.
Klein, Charles H., Jersey City, N. J., assignor to American Telephone and Telegraph Company. Heater for soldering coppers. No. 1,415,098; May 9.
Klein, Fred E. (See Rosenthal, Morris G., assignor.)
Kline, George P., assignor to Williams, White & Company, Moline, Ill. Metal-punching machine. No. 1,415,246; May 9.
Knapp, David R., Pottsville, assignor to Co-Operative Utilities Co., Inc., Philadelphia, Pa. Adapter for motor-brush shunts. No. 1,415,577; May 9.
Knight, Stephen. (See Rasmussen, Peter, assignor.)
Knoop, Frederick, Washington, D. C. Tool holder. No. 1,415,578; May 9.
Knowles, Harve A., Stockport, Iowa. Lumberjack saw. No. 1,415,247; May 9.
Koenigkramer, Frank. (See McManis, J. V., and Koenigkramer.)
Koepke, Frank L., Ridgefield, Wash. Artificial bait. No. 1,415,653; May 9.
Köhler, Lothar, assignor to Dr. jur W. Lurman, Bremen, Germany. Tune sheet for automatic musical instruments. No. 1,415,579; May 9.
Kohler, Paul J., Carrick, Pa. Tube-cutting machine and crimper. No. 1,415,099; May 9.
Kohlhase, Frank L., Chicago, Ill. Vapor burner. No. 1,415,180; May 9.
Koppelman, Harold I. (See Bruder, Edmund, assignor.)
Koppersmith, Louis, New York, N. Y. Picture frame. No. 1,415,654; May 9.
Kops, Waldemar, New York, N. Y., assignor, by mesne assignments, to Nemo Circlet Company Inc. Brassière. No. 1,415,655; May 9.
Kottmeyer, Louis E., Rhineland, Mo. Spark plug. No. 1,415,248; May 9.
Kraft, Henry P. (See Schweinert, M. C., and Kraft.)
Kramer, Louis A., Chicago, Ill. Carcass-dehairing machine. No. 1,415,580; May 9.
Kratz, Franz, H. Starker, and O. Selling, Stuttgart, Germany, assignors to Firm Robert Bosch Aktiengesellschaft at Stuttgart. Ignition apparatus for internal-combustion engines. No. 1,415,581; May 9.
Krivacs, Joseph A., Mount Vernon, N. Y. Extensible bookrack. No. 1,415,582; May 9.
Krogh, C. A., et al., legatees. (See Krogh, Ferdinand W.)
Krogh, Ferdinand W., deceased; M. L. Krogh, F. J. Clarke, C. A. Krogh, and O. Poulsen being legatees by Court Order of Distribution, assignor to Krogh Pump and Machinery Company, San Francisco, Calif. Shaft-lubricating system. No. 1,415,367; May 9.
Krogh, Mary L., et al., legatees. (See Krogh, Ferdinand W.)
Krogh Pump and Machinery Company. (See Krogh, Ferdinand W., assignor.)
Kunz, George, Cleveland, Ohio. Gasket for intake manifolds. No. 1,415,656; May 9.
Kurowski, Alfred G. F., Brooklyn, assignor to Underwood Typewriter Company, New York, N. Y. Typewriting machine. No. 1,415,455; May 9.

Lamp. Arthur W., assignor to W. J. Carter, Cleveland, Ohio. Making brushes. No. 1,415,657; May 9.
Landry, Aldei, assignor to Hemphill Company, Central Falls, R. I. Split-work knitting machine. No. 1,415,583; May 9.
Lane, Edwin B., West Hoboken, N. J. Valve. No. 1,415,249; May 9.
Lane, Samuel E., assignor of one-half to W. Baker, Santa Ana, Calif. Rod and tool coupling. No. 1,415,658; May 9.
Lang, Ernst. (See Germann, A., and Lang.)
Lang, Johan G. V., New York, N. Y. Manufacture of paper bottles. No. 1,415,100; May 9.
Lange, Berthold A., St. Louis, Mo. Box joint. No. 1,415,368; May 9.
Larkin, John J. (See Little, John, assignor.)
Larsen, Jacob C. (See Whitridge, J. C., and Larsen.)
Larson, Albert W. (See Carlson, C. J., and Larson.)
Lauth, Clarence H., London, England. Electric cooking or heating vessel. No. 1,415,456; May 9.
Lauth, Clarence H., London, England. Electrically-heated liquid heater. No. 1,415,457; May 9.
Lawler, James J., Pelham, N. Y. Thermostatic heat-controlling regulator. No. 1,415,584; May 9.
Lawlor, James M., assignor of one-half to T. H. Cutsinger, Topeka, Kans. Optician's tool. No. 1,415,659; May 9.
Lawton, Charles L., Hancock, Mich. Mine-skip loader. No. 1,415,181; May 9.
Layne, Mahlon E., and S. N. Hall, Los Angeles, Calif.; said Hall assignor to said Layne. Well mechanism. No. 1,415,585; May 9.
Layne, Mahlon E., and S. N. Hall, Los Angeles, Calif.; said Hall assignor to said Layne. Well mechanism. No. 1,415,586; May 9.
Layne, Mahlon E., and S. N. Hall, Los Angeles, Calif.; said Hall assignor to said Layne. Well mechanism. No. 1,415,587; May 9.
Layne, Mahlon E. (See Hall, Samuel N., assignor.)
Ledig, Richard G., assignor to A. Mecky Company, Philadelphia, Pa. Electric heater. No. 1,415,660; May 9.
Ledwinka, Joseph, assignor to Edward G. Budd Manufacturing Company, Philadelphia, Pa. Jig for use in electrically welding the parts of automobile bodies and other structures. No. 1,415,588; May 9.
Lee Trailer & Body Company. (See Brace, Henry P., assignor.)
Lehman, Joseph H., Hasbrouck Heights, N. J. Electric-current making, breaking, and reversing device. No. 1,415,369; May 9.
Lehman, Joseph H., Hasbrouck Heights, N. J. Circuit controller for ignition systems. No. 1,415,370; May 9.
Leinbach, Warren C., Wilkinsburg, Pa. Pickling machine. No. 1,415,589; May 9.
Lemon, Alfred E., Douglas, Ariz. Deep-sea salvage apparatus. No. 1,415,661; May 9.
Leoni, Alfonso M., and A. Tischer, Philadelphia, Pa., assignor, by mesne assignments, to Steinmetz Electric Motor Car Corporation, Baltimore, Md. Universal joint and brake-drum unit. No. 1,415,371; May 9.
Leoni, Alfonso M., Philadelphia, Pa., assignor, by mesne assignments, to Steinmetz Electric Motor Car Corporation, Baltimore, Md. Vehicle frame construction. No. 1,415,372; May 9.
Lesley, Hugh, Philadelphia, Pa. Discharge indicator for storage batteries. No. 1,415,101; May 9.
Leveque, Bernard T., Wenham, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J. Machine for sewing buttons to shoe uppers. No. 1,415,250; May 9.
Levy, Henri G., San Francisco, Calif., assignor to R. H. Butters, Atlanta, Ga. Lock. No. 1,415,662; May 9.
Levy, Howard S., et al. (See Giambiasi, Giovanni E., assignor.)
Levy, Lionel F., et al. (See Giambiasi, Giovanni E., assignor.)
Lewis and Roth Corporation. (See Renke, Robert, assignor.)
Lewis, Elgie J., Middleport, N. Y. Fruit coring, sizing, and slicing machine. No. 1,415,458; May 9.
Light Metals Company. (See Thofehrn, Hermann G. C., assignor.)
Lilleberg, Charles L., Chicago, Ill. Rotary plow. No. 1,415,663; May 9.
Limont, Alexander W., assignor to Bridgeport Brass Company, Bridgeport, Conn. Machine for sizing projectile bands. No. 1,415,459; May 9.
Lindecker, William J., San Francisco, Calif. Portable power-transmitting device. No. 1,415,460; May 9.
Linotype and Machinery Limited. (See Holbourns, John G., assignor.)
Little, John, assignor to J. J. Larkin, St. Louis, Mo. Expansible boring tool. No. 1,415,590; May 9.
Little, John C. (See Brown, James N., assignor.)
Little, Mary V. W. (See Little, William F., assignor.)
Little, William F., assignor to M. V. W. Little, Nepperhan Heights, N. Y. Automobile headlamp. No. 1,415,373; May 9.
Lloyd, Thomas H., assignor to Wyckoff & Lloyd Company, Springfield, Mass. Chaser-adjusting tool. No. 1,415,182; May 9.
Loewenbach, Oscar, Milwaukee, Wis. Detachable cover for pads, books, etc. No. 1,415,591; May 9.
Lovejoy, Ralph M., Meredith, N. H. Internal-combustion engine. No. 1,415,374; May 9.
Lovelace, Paul U., Clinton, Okla. Grinding tool. No. 1,415,664; May 9.
Loveless, Albert, Aberdeen, Wash. Valve-grinding tool. No. 1,415,592; May 9.
Lucas, Owen D., Bayswater, London, assignor to V. M. L. Experimental Limited, Westminster, London, England. Shell fuse. No. 1,415,593; May 9.
Lucas, Richard D., Wallaceburg, Ontario, Canada. Filter press. No. 1,415,461; May 9.
Luebben, Melchoir L., Long Beach, Calif. Knife sharpener. No. 1,415,375; May 9.
Lund, Joel, San Francisco, Calif. Metallurgical apparatus. No. 1,415,183; May 9.
Lundquist, Anders G., and K. J. A. Jonson, assignors to Aktiebolaget Skandinaviska Orgel-och Pianofabriken, Stockholm, Sweden. Reed-organ swell. No. 1,415,665; May 9.
Lurman, Wilhelm, Dr. jur. See Köhler, Lothar, assignor.)
Lyons, Benjamin F. (See Robinson, Walter W., assignor.)
McCartney, Elmer B., assignor to Tow Motor Company, Minneapolis, Minn. Cultivator-tooth fastening. No. 1,415,102; May 9.
McCaslin, John. (See Hoffman, C. C., and McCaslin.)
McCollough, W. A., & Sons. (See McCollough, William A., assignor.)
McCollough, William A., assignor to W. A. McCollough & Sons, Inc., Webster City, Iowa. Chick feeder. No. 1,415,376; May 9.
McGarry, George, Youngstown, Ohio. Auto plate and crank holder. No. 1,415,594; May 9.
McGrath, John T., Bloomington, Ill. Signal device. No. 1,415,595; May 9.
McGregor, Alexander G., Warren, Ariz. Vehicle top. No. 1,415,377; May 9.
McIlrath, George W., and J. E. Taylor, Cleveland, Ohio. Device for preheating the explosive mixture in explosion engines. No. 1,415,184; May 9.
McKinnie, Victor P., New York, N. Y., assignor to Ward Baking Company. Advertising device. No. 1,415,596; May 9.
McLean, Donald H., administrator. (See Thofehrn, Hermann G. C.)
McLean, Warren L., San Francisco, Calif. Screw driver. No. 1,415,251; May 9.
McManis, John V., Kirksville, Mo., and F. Koenigkramer, Cincinnati, Ohio. Treatment stool. No. 1,415,252; May 9.
McMillan, Ernest C. (See McMillan, John R. and E. C.)
McMillan, John R. and E. C., Bushong, Kans. Clearing attachment for thrashing machines. No. 1,415,666; May 9.
McQueen, Francis W., assignor of one-half to L. M. Hengesbaugh, Flint, Mich. Quick-action device for vises or wrenches. No. 1,415,103; May 9.
Macdonald, David B., Leicester, England. Manufacture of boots and shoes and stiffeners therefor. No. 1,415,378; May 9.
MacLaughlin, Joseph S. (See Jones, Martin, assignor.)
Madden, Mark F., Chicago, Ill. Rest-producing structure. No. 1,415,597; May 9.
Magnuson, Henry O., Chicago, Ill. Riddle. No. 1,415,598; May 9.
Maguire, Patrick J., Detroit, Mich. Method and means for dispensing carbonated beverages. No. 1,415,185 May 9.
Major, John L., Sculcoates, Hull, England. Distillation or evaporation of liquids. No. 1,415,667; May 9.
Malleable Iron Fittings Company, The. (See Pickop, George B., assignor.)
Mandeville, Irving, Newark, N. J. Lorgnette. No. 1,415,599; May 9.
Mannion, John. (See Mannion, M., and Arthur, assignors.)
Mannion, Martin, Perth Amboy, N. J., and R. C. Arthur, Tottenville, N. Y., assignors of one-third to J. Mannion, Perth Amboy, N. J. Adjustable plug for cleaning condenser tubes. No. 1,415,600; May 9.
Maple, Roy H., Indianapolis, Ind. Thermal electrical cut-out. No. 1,415,253; May 9.
Maritzen, Carl L., San Francisco, Calif. Battery-testing lamp. No. 1,415,254; May 9.
Marotta, Gabriel, assignor of one-half to A. Van Aalst, Seattle, Wash. Spark plug. No. 1,415,668; May 9.
Martin, Trevillie O., Jackson, Tenn. Tool holder. No. 1,415,379; May 9.
Maynard, Lee H. P., Philadelphia, Pa., assignor of one-half to George P. Sacks, Bradley Hills, Md. Production of ice cream. No. 1,415,669; May 9.
Meadows, Thomas C., and H. D. Ruhm, assignor to Eastern Potash Corporation, New York, N. Y. Eliminating color from caustic alkali. No. 1,415,186; May 9.
Measuregraph Company, The. (See Reichmann, Frederick, assignor.)
Measuregraph Company, The. (See Turner, Douglas, assignor.)
Measuregraph Company, The. (See Wheeler, J. L., and Reed, assignors.)
Mecky, A., Company. (See Ledig, Richard G., assignor.)
Meitner, Elemer, assignor to The Sperry Gyroscope Company, Brooklyn, N. Y. Correction mechanism for integrating devices. No. 1,415,601; May 9.
Meredith, Jaquelin M., Jr., Norfolk, Va. Wheel rim. No. 1,415,670; May 9.
Mergenthaler Linotype Company. (See Kennedy, David S., assignor.)

Merry, Ernest W., Sheffield, England, assignor to Pyrotan Leather Corporation, Wilmington, Del. Tanning hides and skins. No. 1,415,671; May 9.
Meteor Mixing Machine Co. (See Trust, Josephine and H., assignors.)
Metropolitan Engineering Company, et al. (See Ostrander, A. E., and Williams, assignors.)
Meyer, Fred G. (See Johnson, C., and Meyer.)
Meyer, Frederick, Buffalo, N. Y. Combined door lock and latch. No. 1,415,104; May 9.
Meyer, George W., and C. A. Roos, Cincinnati, Ohio. Adjustable shore. No. 1,415,602; May 9.
Mickelson, Martin, Muskegon Heights, Mich. Elevator device. No. 1,415,603; May 9.
Mid-East Specialty Company. (See Johnson, Fred I., assignor.)
Mikesell, Azariah H., assignor of one-half to J. Dietrich, Oakland, and one-tenth to C. Dietrich, San Francisco, Calif. Composition of matter for fire and water proof paint. No. 1,415,380; May 9.
Milk Bottle Crate Company. (See Thomall, Timothy V., assignor.)
Miller, Duncan, deceased, by G. A. Ramsdell, administrator, Indianapolis, Ind. Metallic railway tie. No. 1,415,672; May 9.
Miller, Hobart G. (See Cronenberger, George J., assignor.)
Miller, John A., Homewood, Ill. Pleasure-railway structure. No. 1,415,187; May 9.
Miller, John C., Covington, Ky., assignor to The Evaporating and Drying Machinery Company, Cincinnati, Ohio. Evaporator. No. 1,415,255; May 9.
Miller, Joseph, Minneapolis, Minn. Tank for refrigerators. No. 1,415,381; May 9.
Mills, Claud E., Des Moines, Iowa. Reverse-gear structure. No. 1,415,673; May 9.
Milnor, Joseph W., assignor to The Western Union Telegraph Company, New York, N. Y. Amplifier. No. 1,415,382; May 9.
Mitchell, J. R., et al. (See Keller, John F., assignor.)
Mitchell, William H., Sulphur Well, Ky. Hoe drill. No. 1,415,674; May 9.
Mitscherling, Waldemar O., assignor to Atlas Powder Company, Wilmington, Del. Preparation and preservation of viscose solutions of cellulose for the production of films, threads, and filaments. No. 1,415,040; May 9.
Moffat, David D., Hayden, Ariz. Ore concentration. No. 1,415,105; May 9.
Mohn, Albert. (See Mohn, Thomas and A.)
Mohn, Thomas and A., Red Wing, Minn. Automobile rim. No. 1,415,675; May 9.
Monroe, Simon E., Philadelphia, Pa. Comb. No. 1,415,188; May 9.
Moore, Robert A., Cleveland, Ohio. Photographic apparatus. No. 1,415,042; May 9.
Moore, William W., Spokane, Wash. Pneumatic tire. No. 1,415,604; May 9.
Mörch, Kristoffer, Christiania, Norway. Continuous process of decomposing waste sulphite liquor. No. 1,415,843; May 9.
Morehouse, Lyman F., Montclair, N. J., assignor to American Telephone and Telegraph Company. Ciphering device. No. 1,415,106; May 9.
Morenus, Richard C., Laporte, Ind. Lighting device for player pianos. No. 1,415,041; May 9.
Morgan, Chaillie E., Rockville, Ind. Can opener. No. 1,415,676; May 9.
Morrell, Isaac V., Elgin, Ill. Voice intensifier. No. 1,415,462; May 9.
Morris, Leonard D., Chicago, Ill. Chime-striking action. No. 1,415,256; May 9.
Mount, James J. (See Forster, Adam, assignor.)
Mowry, Adelbert F., Worcester, Mass. Sprinkler head. No. 1,415,677; May 9.
Mowry, Robert D., Chicago, Ill. Storage-battery cell. No. 1,415,257; May 9.
Moynihan, Owen, Cleveland, Ohio. Stripping reel. No. 1,415,678; May 9.
Mueller, Adolph, trustee. (See Mueller, P., and Schuermann, assignors.)
Mueller, Philip, and A. C. Schuermann, assignors to A. Mueller, trustee, Decatur, Ill. Nipple-expanding machine. No. 1,415,043; May 9.
Mulock, William R., Winnipeg, Manitoba, Canada. Noise-reducing typewriter platen. No. 1,415,844; May 9.
Multiple Storage Corporation. (See Sturges, Norman D., assignor.)
Murphy, Peter, Newark, N. J. Furnace. No. 1,415,107; May 9.
Murphy, Walter P., Chicago, Ill. Centering device for car couplings. No. 1,415,463; May 9.
Murphy, William M., Glenside, Pa. Drink-mixing machine. No. 1,415,679; May 9.
Myers, Lewis C. (See Hess, E. B., and Myers.)
National Aniline & Chemical Company. (See Ralph, W. M., and Flett, assignors.)
National Metal Products Company. (See Buckley, George H., assignor.)
Navins, Thomas J., Ottawa, Ill. Illuminated pennant. No. 1,415,680; May 9.
Nelsen, Andrew, Chicago, Ill. Can-polishing machine. No. 1,415,258; May 9.
Nemo Circlet Company. (See Kops, Waldemar, assignor.)
Nettgens, Heinrich, Albisrieden, near Zurich, assignor to Eduard Straub-Keller, Sulgen, Switzerland. Burner for gaseous and liquid fuels. No. 1,415,383; May 9.
Nettlefold, Oswald, London, England. Device for locking nuts and the like. No. 1,415,681; May 9.
Newbury, Warren C., East Boston, Mass., assignor to Samuel Cabot, Inc. Cleansing compound. No. 1,415,605; May 9.
Newman, A. L., Company. (See Burgess, Andrew O., assignor.)
Nichalson, Frank J. C., Baltimore, Md. Automatic oiling device for internal-combustion engines. No. 1,415,464; May 9.
Nicols, William L., Tuscumbia, Ala. Hand-propelled vehicle. No. 1,415,259; May 9.
Nigh, Omar I., Washington, D. C. Signal light for automobiles. No. 1,415,465; May 9.
Nilson, Harold and L., Wayzata, Minn. Transmission casing for traction machines. No. 1,415,606; May 9.
Nilson, Leonard. (See Nilson, Harold and L.)
Nixon, George C., and F. C. Raab, Syracuse, N. Y. Case-hardening articles. No. 1,415,261; May 9.
Nixon, George C., Detroit, Mich., and F. C. Raab, Syracuse, N. Y. Hardening metal articles. No. 1,415,260; May 9.
Nordiska Kullager Aktiebolaget. (See Weibull, Ernst H. W., assignor.)
Nordmark, Herman, assignor of one-half to T. J. Johnson, Chicago, Ill. Toy. No. 1,415,682; May 9.
Nordyke, Horace W., assignor to Indianapolis Manufacturing Company, Indianapolis, Ind. Process of treating separators for storage batteries. No. 1,415,683; May 9.
Norrie, James, Quincy, Mass. Mangle. No. 1,415,262; May 9.
Norris, Hallie, Pittsburgh, Pa. Spring oiler. No. 1,415,263; May 9.
Norskog, Adolph G., Miles City, Mont. Grain-saving device. No. 1,415,684; May 9.
North & Judd Manufacturing Company, The. (See Carpmill, J. F., and Troop, assignors.)
North Bro's. M'f'g. Co. (See Fegley, T. J., and Snyder, assignors.)
Nusbaum, George W., Takoma Park, Md. Percussion firing mechanism. No. 1,415,044; May 9.
O'Blenis, William. (See Bennett, A. M., Elliott, and O'Blenis.)
Oliver, Thomas C. (See Hechenbleikner, I., and Oliver.)
Olson, John B., assignor to James Manufacturing Company, Fort Atkinson, Wis. Valve-actuating mechanism for stock-watering bowls. No. 1,415,264; May 9.
O'Neil, James A., Lynn, Mass., assignor to General Electric Company. Navigation light. No. 1,415,685; May 9.
Oppenheim, Leo, New York, N. Y. Calendar. No. 1,415,686; May 9.
Oro, Magnar, Roxbury, Mass. Screw-driver chuck for drill presses. No. 1,415,687; May 9.
Orr, Carleton A., assignor to The Baker Steam Motor Car and Manufacturing Co., Inc., Pueblo, Colo. Hydrocarbon-burner apparatus. No. 1,415,384; May 9.
Oschmann, Adolph, Chicago, Ill. Fuel saver. No. 1,415,607; May 9.
Osler, Boyd, C., Hazleton, Pa. Crusher roll. No. 1,415,608; May 9.
Ostendorf, John A., Baltimore, Md. Resilient vehicle wheel. No. 1,415,265; May 9.
Ostrander, Allen E., Ridgewood, N. J., and H. H. Williams, Brooklyn, N. Y., assignors of one-half to American Car and Foundry Company, New York, and one-half to Metropolitan Engineering Company, Brooklyn, N. Y. Journal box. No. 1,415,045; May 9.
Ostrander, Allen E. Ridgewood, N. J., and H. H. Williams, Brooklyn, N. Y., assignors of one-half to American Car and Foundry Company, New York, and one-half to Metropolitan Engineering Company, Brooklyn, N. Y. Journal box. No. 1,415,108; May 9.
Ostrander, Allen E. Ridgewood, N. J., and H. H. Williams, Brooklyn, N. Y., assignors of one-half to American Car and Foundry Company, New York, and one-half to Metropolitan Engineering Company, Brooklyn, N. Y. Journal box. No. 1,415,109; May 9.
Oswald, Earl P., Detroit, Mich. Generating plant. No. 1,415,385; May 9.
Oxley, Walter T., Fergus Falls, Minn. Film clip. No. 1,415,189; May 9.
P. & M. Company, The. (See Warr, Harold G., assignor.)
Pacey, William, Dunedin, New Zealand. Hand shears. No. 1,415,609; May 9.
Pacific Car & Foundry Co. (See Jarvis, Herbert C., assignor.)
Packard Motor Car Company. (See Church, Harold D., assignor.)
Packard Motor Car Company. (See Gauthier, Adelard J., assignor.)
Packard Motor Car Company. (See Hunt, Ormond E., assignor.)
Packard Motor Car Company. (See Rider, William K., assignor.)
Packard Motor Car Company. (See Vincent, Jesse G., assignor.)
Packard Motor Car Company. (See Woolson, Lionel M., assignor.)
Paddock, William W., Kansas City, Kans. Band-saw guide. No. 1,415,386; May 9.

Pade, Max H., assignor to The Firestone Tire and Rubber Company, Akron, Ohio. Conveyer. No. 1,415,688; May 9.
Paige-Detroit Motor Car Company. (See Jandasek, Joseph, assignor.)
Palmer, Charles L., and J. R. Hollister, assignors to Rollemout Manufacturing Company, Sleepy Eye, Minn. Wild-pea separator. No. 1,415,610; May 9.
Palmer, Elias H., Charleston, S. C. Monotrack trolley plane. No. 1,415,190; May 9.
Parent, Joseph A., Montreal, Quebec, Canada. Shoe-shining machine. No. 1,415,689; May 9.
Park, Thomas M., Lake Bolac, Victoria, Australia. Feeding apparatus for thrashing machines. No. 1,415,046; May 9.
Parks, Frank M., North Cohocton, and F. A. Finch, assignors to H. C. Hatch, Atlanta, N. Y. Machine for preparing farm products. No. 1,415,191; May 9.
Parmeter, Margaret A., Denver, Colo. Dehydrating and recovering values from slimes. No. 1,415,387; May 9.
Parret, Milton L., Marshalltown, Iowa. Motion-transmission device. No. 1,415,690; May 9.
Parsons, Frederick W., Elmira, N. Y., assignor to Ingersoll-Rand Company, Jersey City, N. J. Portable compressor unit. No. 1,415,047; May 9.
Patigian, Arthur, Modesto, Calif. Bearing scraper. No. 1,415,048; May 9.
Patt, Sylvester, Willoughby, Ohio. Washing machine. No. 1,415,691; May 9.
Pavoni, Joseph, Sioux City, Iowa. Detachable link. No. 1,415,692; May 9.
Pearl, Eugene, New York, N. Y. File rack. No. 1,415,110; May 9.
Pechkranz, Rodolphe, Carouge-Geneva, Switzerland. Electrolyzer. No. 1,415,466; May 9.
Pederson, John M., Nome, N. Dak. Board-pulling tool. No. 1,415,693; May 9.
Peerless Insulated Wire and Cable Company, The. (See Cook, William E., assignor.)
Pelot, Frank D., et al., trustees. (See Pelot, Frank D., assignor.)
Pelot, Frank D., Dallas, assignor to F. D. Pelot, R. L. Thornton, and M. F. Brown, trustees for the Holder Company, a common-law trust, Dallas County, Tex. Cigar-box-lid holder. No. 1,415,388; May 9.
Pelton, Charles H., assignor to The Thomas Manufacturing Company, Springfield, Ohio. Agricultural implement. No. 1,415,111; May 9.
Perkins, Edwin A., Jamaica, N. Y. Roller bearing. No. 1,415,694; May 9.
Perkins, Wayne A., Hawthorne, Nev. Pantographic apparatus for attaching to universal drafting machines. No. 1,415,695; May 9.
Perlitz, Alfred W., Youngstown, Ohio. Cable fastener. No. 1,415,112; May 9.
Perotti, Lewis, Newark, N. J. Press. No. 1,415,611; May 9.
Peterson, Thorwald B., assignor to L. C. Sharp, Plattsmouth, Nebr. Method and means for mixing liquids with dry material. No. 1,415,851; May 9.
Petroleum Heat and Power Company. (See Fesler, Milton A., assignor.)
Perrin, F. W., Sr., (See Discher, William G., assignor.)
Phillips, Thomas H., Jr., Fort Myers, Fla. Clam-dredging machine. No. 1,415,113; May 9.
Photographic Appliances Corporation. (See Dye, Glen M., assignor.)
Pickert, L., Fish Company. (See Barry, James J., assignor.)
Pickop, George B., New Haven, assignor to The Malleable Iron Fittings Company, Branford, Conn. Cleaning device. No. 1,415,467; May 9.
Pierce, Robert C., Tallmadge, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y. Grommet-winding machine. No. 1,415,696; May 9.
Pilling, Henry, Chorlton-cum-Hardy, England. Cylinders of uniflow steam engines. No. 1,415,697; May 9.
Pinnavaja, Raffaele, Buffalo, N. Y. Attachment for adjusting the pitch of wind musical instruments. No. 1,415,051; May 9.
Pioneer Manufacturing Company. (See Johnson, Walter A., assignor.)
Pitoni, Guido, Rochester, N. Y. Needle. No. 1,415,698; May 9.
Pittsburgh Plate Glass Company. (See White, Robert W., assignor.)
Pittsburgh Transformer Company. (See Bingay, Robert V., assignor.)
Plauson, Hermann, Hamburg, Germany. Manufacture of rubber-like substances. No. 1,415,468; May 9.
Plauson, Hermann, Hamburg, Germany. Improving the odor, taste, and digestibility of raw yeast for the purpose of employing it as edible yeast. No. 1,415,469; May 9.
Porter, Charles E., Neville Township, Allegheny County, Pa. Car step. No. 1,415,699; May 9.
Pollock, John L., Freeport, assignor of one-third to A. J. Head, Sterling, Ill., and one-third to T. G. Stewart, Highland Park, Mich. Latch. No. 1,415,192; May 9.
Postel-Vinay, Pierre J. R., assignor to Societe des Moteurs Salmson (Systeme Canton-Unne,) Paris, France. Wood-slicing machine. No. 1,415,470; May 9.
Potter, Isaac B. (See Waggoner, Claude M., assignor.)
Poulsen, Oscar, et al., legatees. (See Krogh, Ferdinand W.)
Preiswerk, Ernst, Basel, Switzerland, assignor to The Hoffmann-La Roche Chemical Works, New York, N. Y. Manufacture of 1-allyl-3.7dimethylxanthine. No. 1,415,700; May 9.
Pressler, Willard E., Fort Wayne, Ind. Slug stacker. No. 1,415,471; May 9.
Price, Bernard, Johannesburg, South Africa, assignor to himself and The Victoria Falls and Transvaal Power Company, Limited, London, England. Oil switch. No. 1,415,114; May 9.
Priestman, Albert, Philadelphia, Pa. Pumping system. No. 1,415,701; May 9.
Puc, Vojtěch, Prague-Vinohrady, Bohemia. Crochet needle. No. 1,415,472; May 9.
Puc, Vojtěch, Prague-Vinohrady, Bohemia. Safety pin. No. 1,415,473; May 9.
Puc, Vojtěch, Prague-Vinohrady, Bohemia. Snap button. No. 1,415,474; May 9.
Puc, Vojtěch, Prague-Vinohrady, Bohemia. Safety pin. No. 1,415,475; May 9.
Puc, Vojtěch, Prague-Vinohrady, Bohemia. Safety pin. No. 1,415,476; May 9.
Puc, Vojtěch, Prague-Vinohrady, Bohemia. Dies for punching small metal parts. No. 1,415,477; May 9.
Puc, Vojtěch, Prague-Vinohrady, Bohemia. Polishing machine. No. 1,415,478; May 9.
Puhl, William H., Zion City, Ill. Ratchet attachment for screw drivers. No. 1,415,389; May 9.
Pullin, Cyril G., Isleworth, England. Lubricating means for bearings external of a hollow member. No. 1,415,115; May 9.
Pupin, Michael I., Norfolk, Conn., and E. H. Armstrong, Yonkers, N. Y. Selectively opposing impedance to received electrical oscillations. No. 1,415,845; May 9.
Purcell, George G., Brooklyn, N. Y. Shaft attachment. No. 1,415,702; May 9.
Purington, Orren D., Providence, R. I. Fire indicator. No. 1,415,390; May 9.
Puter, Stephen A. D., Berkeley, Calif., and A. F. Eltscher, New York, N. Y., assignors to The Classified Automatic Directory Company. Directory cabinet. No. 1,415,703; May 9.
Putnam, Edwin W., Hartford, Conn. Electrically-heated fusing implement. No. 1,415,479; May 9.
Pyrotan Leather Corporation. (See Merry, Ernest W., assignor.)
Raab, Frederick C. (See Nixon, G. C., and Raab.)
Rafsky, Harold R., Roxbury, Mass. White pigment. No. 1,415,391; May 9.
Ragan, Louis A., St. Louis, Mo. Combined automobile tail light and State-license-plate holder. No. 1,415,116; May 9.
Ralph, Walter M., and L. H. Flett, Buffalo, assignor to National Aniline & Chemical Company, New York, N. Y. Production of disazo dye. No. 1,415,704; May 9.
Ramsaier, William J., New York, N. Y. Ink distributor. No. 1,415,480; May 9.
Ramsdell, Guy A., administrator. (See Miller, Duncan.)
Rasmussen, Peter, assignor of one-half to S. Knight, Denver, Colo. Pan-dumping apparatus for cake and cracker conveyers. No. 1,415,392; May 9.
Rassmann, F., Mfg. Co. (See Rassmann, Hugo C., assignor.)
Rassmann, Hugo C., assignor to F. Rassmann Mfg. Co., Beaver Dam, Wis. Aligning means for stanchions. No. 1,415,117; May 9.
Raugstad, Thor, Sandnaes, near Stavanger, Norway. Rotary engine. No. 1,415,393; May 9.
Redding, Elsie J., Mount Holly, N. J. Locking device for motor vehicles. No. 1,415,394; May 9.
Reed, Charles J., Homestead, assignor of one-half to J. G. Berryhill, San Francisco, Calif. Obtaining manganese dioxide and nitric acid. No. 1,415,395; May 9.
Reed, Edwin A. (See Wheeler, J. L., and Reed.)
Reed, Frank J., assignor of one-half to A. H. Siert, Omaha, Nebr. Internal-combustion engine. No. 1,415,481; May 9.
Reed, Raymond T., Wichita, Kans. Collapsible tent. No. 1,415,482; May 9.
Rees, Edmund S. G., Wolverhampton, England. Apparatus for maneuvering ships and aircraft. No. 1,415,705; May 9.
Rees, Rees, Kapunda, South Australia, Australia. Method of and means for blocking or corrugating headers for steam boilers. No. 1,415,706; May 9.
Reeve, Sidney A., New Brighton, N. Y. Musical notation. No. 1,415,396; May 9.
Regan Safety Devices Company. (See Shaver, Archibald G., assignor.)
Reichart, James H., assignor to The Steroelectric Company, Muncie, Ind. Fireless cooker. No. 1,415,049; May 9.
Reichart, James H., assignor to The Steroelectric Company, Muncie, Ind. Thermostatic electric switch. No. 1,415,050; May 9.
Reichmann, Frederick, Webster Groves, assignor to The Measuregraph Company, St. Louis, Mo. Lace-measuring machine. No. 1,415,483; May 9.
Reid, Lester B., Gaffney, S. C. Roller-bar tips for spinning machines. No. 1,415,707; May 9.
Renault, Louis. (See Fuchs, Ernest, assignor.)
Renke, Robert, assignor to Lewis and Roth Corporation, Philadelphia, Pa. High-voltage air-break switch. No. 1,415,708; May 9.

Revere Rubber Company. (See Gibbons, Willis A., assignor.)
Reynolds, George A., et al. (See Wilbur, Frederick H., assignor.)
Reynolds, Samuel W., et al. (See Wilbur, Frederick H., assignor.)
Rhotanium Co., The. (See Fahrenwald, Frank A., assignor.)
Riblett, Lewis C., assignor to The Firestone Tire and Rubber Company, Akron, Ohio. Apparatus for unwrapping inner tubes. No. 1,415,709; May 9.
Rice, Chester S., Schenectady, N. Y., assignor to General Electric Company. Elastic-fluid turbine. No. 1,415,266; May 9.
Richter, Willy, Olmsted, Ill. Pressure gauge. No. 1,415,710; May 9.
Rickert-Shafer Company. (See Boehm, Rudolph A., assignor.)
Rider, William K., assignor to Packard Motor Car Company, Detroit, Mich. Airplane. No. 1,415,052; May 9.
Ries, Ferdinand, New York, N. Y. Diamond grinder. No. 1,415,118; May 9.
Risty, Julia E., Pipestone, Minn. Chicken coop. No. 1,415,397; May 9.
Ritter, Charles E. (See Kaimer, R. V., and Ritter.)
Roberts, Hiram S., Albany, Ala. Seat. No. 1,415,711; May 9.
Robertson, Frank E., assignor to The P. A. Geier Company, Cleveland, Ohio. Suction cleaning apparatus. No. 1,415,053; May 9.
Robertson, Wallace B. J., Edgbaston, England. Pressing of peat and the like. No. 1,145,398; May 9.
Robinson, Clarence I. (See Howard, F. A., Robinson, and Jennings.)
Robinson, Daniel C., Monessen, assignor of one-half to W. C. Johnson, Rices Landing, Pa. Chuck for tool-operating machines. No. 1,415,119; May 9.
Robinson, Dighton A., Seattle, Wash. Tie-tamping machine. No. 1,415,193; May 9.
Robinson, Dighton A., Minneapolis, Minn. Tie-tamping machine. No. 1,415,194; May 9.
Robinson, Walter W., assignor of one-half to B. F. Lyons, Beloit, Wis. Refrigerating system. No. 1,415,399; May 9.
Rockwell, E. A., Company Inc. (See Rockwell, Edward A., assignor.)
Rockwell, Edward A., New Haven, Conn., assignor to E. A. Rockwell Company, Inc., New York, N. Y. Vacuum feeding apparatus. No. 1,415,195; May 9.
Rockwell, Hugh M., Bristol, Conn., assignor, by mesne assignments, to Standard Steel and Bearings Incorporated, Wilmington, Del. Gauge. No. 1,415,054; May 9.
Roghmanns, Theodor, Sonsbeck, Germany. Monorail railway with aeroplane cars. No. 1,415,400; May 9.
Rollemout Manufacturing Company. (See Palmer C. L., and Hollister, assignors.)
Rollins, Wingate, Hyde Park, C. K. Seymour, Winchester, and J. A. Sargent, Cambridge, Mass. Vehicle lock. No. 1,415,401; May 9.
Rontey, Pierre A., and R. Taylor, Coscob, Conn. Picture constructor. No. 1,415,712; May 9.
Rooney, Patrick J., New Rochelle, N. Y. Power-transmission appliance. No. 1,415,120; May 9.
Roos, Charles A. (See Meyer, G. W., and Roos.)
Roos, Henry W., Cincinnati, Ohio. Lifting implement. No. 1,415,055; May 9.
Rosehill, Michael, Lobley, Alberta, Canada. Tongs. No. 1,415,196; May 9.
Rosenthal, Morris G., assignor of one-half to F. E. Klein, Cincinnati, Ohio. Laundry tag. No. 1,415,713; May 9.
Rossbach, Rose, Missoula, Mont. Rim for automobile wheels. No. 1,415,402; May 9.
Roth, William, New York, N. Y. Game apparatus. No. 1,415,267; May 9.
Royal Typewriter Company, Inc. (See Hess E. B., and Handley, assignors.)
Royal Typewriter Company, Inc. (See Hess, E. B., and Myers, assignors.)
Ruberoid Co., The. (See Abraham, Herbert, assignor.)
Rudnick, George E., Boston, Mass., assignor to Victor Talking Machine Company, Camden, N. J. Drop-cover check. (Reissue.) No. 15,350; May 9.
Ruemelin, Richard, Stillwater, Minn. Sand-blast apparatus. No. 1,415,403; May 9.
Ruhlandt, Walther C., Jackson, Mich. Reamer. No. 1,415,121; May 9.
Ruhm, Herman D. (See Meadows, T. C., and Ruhm.)
Rumble, Elsie G., administratrix. (See Rumble, William, Jr.)
Rumble, William, Jr., deceased, East Orange; E. G. Rumble, administratrix, assignor to Battin & Company, Newark, N. J. Cigarette or cigar holder. No. 1,415,404; May 9.
Sacks, George P. (See Maynard, Lee H. P., assignor.)
Sacks, George P. (See Sanna, Anthony R., assignor.)
Safetee Glass Company. (See Gibbs, Ralph A., assignor.)
Saffold, James W., Cleveland, Ohio. Wrench. No. 1,415,714; May 9.
Sale, Archie P., San Antonio, Tex. Air-brake attachment. No. 1,415,405; May 9.
Salmon, Wilfrid, St. Paul, Minn. Railway-car door. No. 1,415,484; May 9.
Sampson, Scott M., Oakdale, Calif. Concrete-tile construction. No. 1,415,197; May 9.
Sanna, Anthony R., Chevy Chase, assignor to G. P. Sacks, Bradley Hills, Md. Making ice-cream mix. No. 1,415,715; May 9.
Sargent, John A. (See Rollins, W., Seymour, and Sargent.)
Scanes, Arthur E. L., Ashton-on-Mersey, England, assignor to The British Westinghouse Electric and Manufacturing Company Limited. Elastic-fluid-operated ejector. No. 1,415,406; May 9.
Schaer, Charles, Langenthal, Switzerland. Plant and process for distilling tar. No. 1,415,056; May 9.
Schaer, Charles, Langenthal, Switzerland. Apparatus for distilling tar. No. 1,415,057; May 9.
Schill, Emil, and F. Wordich, assignors to Continental Gas Compressing Corporation, New York, N. Y. Process of and apparatus for extracting, liquefying, and separating liquefiable constituents of gases. No. 1,415,058; May 9.
Schleicher, Harry M. (See Burkey, H. M., and Schleicher.)
Schleicher, Henry M. (See Hayward, C. R., and Schleicher.)
Schluter, William, Jr., assignor of one-third to C. H. Dankworth and one-third to G. W. Dankworth, Bellaire, Ohio. Loading machine. No. 1,415,485; May 9.
Schmid, Herman. (See Fuegel, G., and Schmid.)
Schmidding, Wilhelm, a Firm. (See Wachtel, Philipp, assignor.)
Schneckenburger, Paul M., Wolcott, Ind. Spring wheel. No. 1,415,716; May 9.
Schofield, George L., Frederick, Md. Cooling device for motor-driven vehicles. No. 1,415,122; May 9.
Schofield, Lee. (See Stott, V. H., and Schofield.)
Schuermann, Anton C. (See Mueller, P., and Schuermann.)
Schuetz, Frank A. (See Hamm, W. S., and Schuetz.)
Schulte, Louis, Chicago, Ill. Brightening and hardening electrolytically-tinned articles. No. 1,415,198; May 9.
Schultz, Albert L., Pittsburgh, Pa. Resilient wheel. No. 1,415,486; May 9.
Schulz, Fred, Fruitville, Calif. Hydrocarbon burner. No. 1,415,123; May 9.
Schumacher, Elmer L., Southbridge, and W. H. Boutelle, Sturbridge, assignors to American Optical Company, Southbridge, Mass. Ophthalmic mounting. No. 1,415,612; May 9.
Schweinert, Maximilian C., New York, N. Y., and H. P. Kraft, Ridgewood, N. J. Tire valve and the like. No. 1,415,407; May 9.
Schworetzky, Gustav, Eplingen-on-the-Neckar, Germany. Portable fire extinguisher. No. 1,415,717; May 9.
Scott, E. Harrison, assignor to Johnson Automobile Sheet Metal Works, Richmond, Ind. Roll for sheet-metal-forming machines. No. 1,415,408; May 9.
Scott, Harvey L. (See Thomas, G. W., and Scott.)
Seel, Paul C., assignor to Eastman Kodak Company, Rochester, N. Y. Base for antistatic film and composition for making the same. No. 1,415,059; May 9.
Segur, Howard J., Portland, Oreg. Spotlight control. No. 1,415,409; May 9.
Seifert, Fred, Boelus, Nebr. Chimney-flue liner. No. 1,415,199; May 9.
Selling, Otto. (See Kratz, Franz, Starker, and Selling.)
Seitz, Charles G., Detroit, Mich. Disk clutch. No. 1,415,841; May 9.
Sessler, Marcel K., New York, N. Y. Bolt. No. 1,415,487; May 9.
Seyfarth, Edward, Dixon, Ill. Tab holder. No. 1,415,488; May 9.
Seymour, Clinton K. (See Rollins, W., Seymour, and Sargent.)
Shafer, Samuel, Jr., assignor to Chain Belt Company, Milwaukee, Wis. Operating mechanism for chutes. No. 1,415,410; May 9.
Shafer, Samuel, Jr., assignor to Chain Belt Company, Milwaukee, Wis. Power-driven chute-operating-mechanism. No. 1,415,411; May 9.
Sharah y Cantos, Florentino E., Tacloban, Philippine Islands. Fountain pen. No. 1,415,718; May 9.
Sharp, Lee C. (See Peterson, Thorwald B., assignor.)
Shaver, Archibald G., Chicago, Ill., assignor to Regan Safety Devices Company, Inc. Speed circuit controller. No. 1,415,412; May 9.
Shaw, Frank S. (See Washburne, William H., assignor.)
Shawmut Machine Works. (See Smith, Raymond D., assignor.)
Sherbondy, Earl H., assignor to S. D. Waldon, Detroit, Mich. Control mechanism. No. 1,415,200; May 9.
Shollenberger, Benjamin B., Marshalltown, Iowa. Sanitary closet. No. 1,415,719; May 9.
Shore, Frank C., assignor of one-half to G. B. Arones, Minneapolis, Minn. Drill chuck. No. 1,415,720; May 9.
Shoup, Samuel R., Weehawken, N. J. Strip-feed device. No. 1,415,721; May 9.
Siert, Alvin H. (See Reed, Frank J., assignor.)
Silverman, Mortimer, Boston, Mass. Container for fibrous material. No. 1,415,722; May 9.
Simmons, Frank L., assignor to The Taft-Peirce Manufacturing Company, Woonsocket, R. I. Bipolar magnetic chuck. No. 1,415,723; May 9.
Simmons, R. F., Company. (See Smith, Ezra S., assignor.)
Simonson, Elmer L. (See Estep, W. G., Hamilton, and Simonson.)
Simpson, Leon G., assignor to Bausch & Lomb Optical Company, Rochester, N. Y. Lens-grinding machine. No. 1,415,613; May 9.

Simpson, Robert J., Athol, Mass. Pocket tape. No. 1,415,489; May 9.
Singer Manufacturing Company, The. (See Barron, William L., assignor.)
Singer Manufacturing Company, The. (See Karle, John D., assignor.)
Skelly, Bernard H., Bridgeport, Conn. Oiling device. No. 1,415,124; May 9.
Skinner, Ralph L., Sacramento, Calif. Internal-combustion-engine attachment. No. 1,415,060; May 9.
Slee, Richard, Swiftwater, Pa. Container applicator. No. 1,415,413; May 9.
Sloman, Cheri M., Detroit, Mich. Tire-building apparatus. No. 1,415,724; May 9.
Smith, Albert D., Detroit, Mich. Revolving-hook sewing machine. No. 1,415,268; May 9.
Smith, Albert D., Detroit, Mich. Rotary take-up for sewing machines. No. 1,415,269; May 9.
Smith, Angus N., Forty Fort, assignor to Wales Adding Machine Company, Wilkes-Barre, Pa. Calculating machine. No. 1,415,125; May 9.
Smith, Charles H., Short Hills, and E. B. Edwards, East Orange, N. J., assignors to International Coal Products Corporation, Richmond, Va. Furnace retort. No. 1,415,061; May 9.
Smith, Charles H., Short Hills, N. J., assignor to International Coal Products Corporation, Richmond, Va. Furnace retort. No. 1,415,201; May 9.
Smith, Charles H., Short Hills, N. J., assignor to International Coal Products Corporation, Richmond, Va. Furnace retort. No. 1,415,846; May 9.
Smith, Charles H., Short Hills, N. J., assignor to International Coal Products Corporation, Richmond, Va. Plant for and method of treating coal. No. 1,415,202; May 9.
Smith, Ezra S., assignor to R. F. Simmons Company, Attleboro, Mass. Belt loop for chains. No. 1,415,490; May 9.
Smith, Frank E., assignor of one-half to E. A. Dennin, Troy, N. Y. Stopping attachment for phonographs. No. 1,415,270; May 9.
Smith, Franklin S., Philadelphia, Pa. Apparatus for treating articles by disruptive conduction. (Reissue.) No. 15,351; May 9.
Smith, John P. (See Crain, P. M., and Smith.)
Smith-Lee Company, The. (See Baltzley, Oren F., assignor.)
Smith, Raymond D., Boston, Mass., assignor to Shawmut Machine Works, Inc. Delayed cut-off arrangement for mantle gas lamps. No. 1,415,063; May 9.
Smith, Raymond D., Boston, Mass., assignor to Shawmut Machine Works, Inc. Delayed cut-off for gas burners. No. 1,415,062; May 9.
Snyder, Edward R., East Orange, N. J., assignor to The Barrett Company. Shingle. (Reissue.) No. 15,352; May 9.
Snyder, Robert W., assignor to The Goodyear Tire & Rubber Company, Akron, Ohio. Apparatus for building tires of the solid type. No. 1,415,842; May 9.
Snyder, Walter S. (See Fegley, T. J., and Snyder.)
Societe des Moteurs Salmson, (Systeme Canton-Unne.) (See Postel-Vinay, Pierre J. R., assignor.)
Societe Fabriques de Produits Chimiques de Tharm et de Mulhouse. (See Haller, Albin, assignor.)
Soennecken, F. (See Berger, Richard, assignor.)
Souther, Lewis F., Larson, N. Dak. Weed and insect burner. No. 1,415,491; May 9.
Southwick, William S., Clinton, assignor to Wickwire Spencer Steel Corporation, Worcester, Mass. Apparatus for automatically feeding wire filling units to wire-fabric shuttles. No. 1,415,492; May 9.
Sperry, Elmer A., Jr., Brooklyn, N. Y. Depth-controlled mine. No. 1,415,614; May 9.
Sperry, Elmer A., Brooklyn, N. Y. Launching mechanism for aeroplanes. No. 1,415,847; May 9.
Sperry Gyroscope Company, The. (See Brewerton, Arthur E., assignor.)
Sperry Gyroscope Company, The. (See Meitner, Elemer, assignor.)
Splitdorf Electrical Company. (See Dean, William W., assignor.)
Splitdorf Electrical Company. (See Tomlinson, Edward J., assignor.)
Spohrer, Gregory J., East Orange, N. J. Truck tire pump. No. 1,415,725; May 9.
Spurgin, Robert, Jr., Chicago, Ill. Belt shifter. No. 1,415,271; May 9.
Stahle, Carl W., Everett, Mass. Combined coat and hat holder. No. 1,415,126; May 9.
Standard Oil Company. (See Ellis, Carleton, assignor.)
Standard Oil Company. (See Howard, F. A., and Jennings, assignors.)
Standard Oil Company. (See Howard, F. A., Robinson, and Jennings, assignors.)
Standard Steel and Bearings Incorporated. (See Rockwell, Hugh M., assignor.)
Stanley Tire & Rubber Corporation of Delaware. (See Heller, Robert, assignor.)
Stanmore, James, and D. Kennedy, Seattle, Wash. Bolting-up device. No. 1,415,726; May 9.
Stantz, Alfred C., Detroit, Mich. Demountable rim. No. 1,415,272; May 9.
Stark, Arthur L., assignor to The Stibium Products Company, Elyria, Ohio. Precipitated antimony sulphide and making same. No. 1,415,127; May 9.
Starker, Heinrich. (See Kratz, Franz, Starker, and Selling.)
Starr, Clarence C., San Francisco, Calif. Folding automobile bed. No. 1,415,727; May 9.
Stedman, Jacob C. (See Ballard, O. O., and Stedman.)
Stein, Friedrich, Villingen, Germany. Safety device for cinematograph projecting apparatus. No. 1,415,494; May 9.
Steinmetz Electric Motor Car Corporation. (See Leoni, A. M., and Tischer, assignors.)
Steinmetz Electric Motor Car Corporation. (See Leoni, Alfonso M., assignor.)
Sterolectric Company, The. (See Reichart, James H., assignor.)
Stevens, Charles W., assignor to Stevens Partition and Floor Deadener Co., Chicago, Ill. Ceiling construction. No. 1,415,273; May 9.
Stevens Partition and Floor Deadener Co. (See Stevens, Charles W., assignor.)
Stevenson, Earl P., Cambridge, assignor, by mesne assignments, to General Bond and Share Company, Boston, Mass. Recovering potash. No. 1,415,203; May 9.
Stevenson, Earl P., Cambridge, assignor, by mesne assignments, to General Bond and Share Company, Boston, Mass. Extracting potash from saline deposits and brines. No. 1,415,204; May 9.
Stevenson, Earl P., Cambridge, assignor, by mesne assignments, to General Bond and Share Company, Boston, Mass. Extracting borax from saline deposits and brines. No. 1,415,205; May 9.
Stevenson, Earl P., Cambridge, assignor, by mesne assignments, to General Bond and Share Company, Boston, Mass. Recovering valuable constituents from alkaline brines and deposits. No. 1,415,206; May 9.
Stewart, Thomas G., et al. (See Pollock, John L., assignor.)
Stewart, Vernon T. (See Ellis, C., and Stewart.)
Stewart-Warner Speedometer Corporation. (See Wood, Andrew C., assignor.)
Stibium Products Company, The. (See Stark, Arthur L., assignor.)
Stock, Adam J., Wilkinsburg, Pa. Machinists' rule and gauge. No. 1,415,615; May 9.
Stott, Vernon H., and L. Schofield, Oldham, England. Water heater. No. 1,415,728; May 9.
Stowell, Augustus H., Spokane, Wash. Flume construction. No. 1,415,274; May 9.
Strahan, Ida W., Montclair, N. J. Hair-puff device. No. 1,415,729; May 9.
Strang, Robert H. W., Bridgeport, Conn. Instrument for holding appliances while heated. No. 1,415,414; May 9.
Straub-Keller, Eduard. (See Nettgens, Heinrich, assignor.)
Strayer, Daniel H., Los Angeles, Calif. Combined door check and buffer. No. 1,415,493; May 9.
Stromberg Motor Devices Company. (See Edwards, Francis E., assignor.)
Sturges, Norman D., Bellerose, N. Y., assignor, by mesne assignments, to Multiple Storage Battery Corporation. Storage battery. No. 1,415,275; May 9.
Sturgis, Mabel M., Burley, Idaho. Underwaist. No. 1,415,616; May 9.
Sturtevant, B. F., Company. (See Bentley, Oliver D. H., assignor.)
Submarine Signal Company. (See Fessenden, Reginald A., assignor.)
Sumner Iron Works. (See Dorman, George W., assignor.)
Suplee, Henry H., New York, N. Y. Transmission and speed-conversion mechanism. No. 1,415,128; May 9.
Swanberg, Julius, assignor to Fabart Instrument Company, Chicago, Ill. Automatic alarm. No. 1,415,207; May 9.
Swift, George M. (See Hallmark, Elmer C., assignor.)
Taber-Prang Art Co. (See Cueny, Benjamin U., assignor.)
Taft-Peirce Manufacturing Company, The. (See Simmons, Frank L., assignor.)
Tanomura, Genji, Tokyo, Japan. Drawn pipe and stretching same. No. 1,415,415; May 9.
Taylor Electric Truck Co. (See Taylor, John, assignor.)
Taylor, Jack E. (See McIlrath, G. W., and Taylor.)
Taylor, John, Albany, assignor to Taylor Electric Truck Co., Troy, N. Y. Car brake. No. 1,415,730; May 9.
Taylor, Robert. (See Rontey, P. A., and Taylor.)
Terner, Edward, Milwaukee, Wis. Card holder. No. 1,415,276; May 9.
Terry, Merrill H., Columbus, Ohio. Ratchet wrench. No. 1,415,731; May 9.
Terwen, Adrianus J. L., and C. J. C. van Hoogenhuyze, Amsterdam, Netherlands. Manufacture of decolorized, odorless, and tasteless albumins from blood. No. 1,415,277; May 9.
Thériault, Alphonse C., Montreal, Quebec, Canada. Incubator. No. 1,415,732; May 9.
Thofehrn, Hermann G. C., deceased, Roselle; D. H. McLean, administrator, assignor to Light Metals Company, Elizabeth, N. J. Making and using metal scavenging alloy. No. 1,415,733; May 9.
Thomall, Timothy V., assignor to Milk Bottle Crate Company, Chicago, Ill. Box and crate. No. 1,415,064; May 9.
Thomas, George W., Los Angeles, and H. L. Scott, Long Beach, Calif. Wrench. No. 1,415,734; May 9.
Thomas Manufacturing Company, The. (See Pelton, Charles H., assignor.)

Thorcson, Peter, Baldi, Wash. Composition for shoe dressing. No. 1,415,208; May 9.
Thornton, R. L., et al., trustees. (See Pelot, Frank D., assignor.)
Tiedemann, Theo., & Sons, Inc. (See Hoffman, John H., assignor.)
Tilling, Joseph S., and H. Dobbins, Warrington, England. Apparatus for turning handles from round stock. No. 1,415,416; May 9.
Tillson, Edwin D., assignor to Associated Engineers Company, Chicago, Ill. Lighting-fixture-cleaning device. No. 1,415,065; May 9.
Timken-Detroit Axle Company. (See Brown, P., and Bostock, assignors.)
Tischer, Arthur. (See Leoni, A. M., and Tischer.)
Tobin, Anna G., administratrix. (See Gibbs, Charles.)
Tod, Frederick, Winnipeg, Manitoba, Canada. Apparatus for teaching bookkeeping. No. 1,415,278; May 9.
Tomlinson, Edward J., assignor to Splitdorf Electrical Company, Newark, N. J. Automatic cut-out for electric generators. No. 1,415,497; May 9.
Tomlinson, Edward J., East Orange, assignor to Splitdorf Electrical Company, Newark, N. J. Governor for electrical circuits. No. 1,415,495; May 9.
Tomlinson, Edward J., assignor to Splitdorf Electrical Company, Newark, N. J. Governor for electric circuits. No. 1,415,496; May 9.
Tow Motor Company. (See McCartney, Elmer B., assignor.)
Trethewey, William G., Cuckfield, England. Tractor wheel. No. 1,415,279; May 9.
Trew, George B., Shreveport, La. Pump. No. 1,415,417; May 9.
Troke, Thomas P., Indianapolis, Ind. Convertible vehicle body. No. 1,415,209; May 9.
Troop, George W. (See Carpmill, J. F., and Troop.)
Truck, Tractor and Manufacturing Company. (See Jacobs, I. M., and Cramer, assignors.)
Trust, Henry. (See Trust, Josephine and H.)
Trust, Josephine and H., Park Ridge, N. J., assignor, by mesne assignments, to Meteor Mixing Machine Co., Inc. Food machine. No. 1,415,735; May 9.
Turner, Douglas, assignor to The Measuregraph Company, St. Louis, Mo. Fabric-measuring and cost-computing machine. No. 1,415,498; May 9.
Tuttle, James N., Boston, Mass., assignor to General Electric Company. Recorder. No. 1,415,499; May 9.
U. S. High Speed Steel & Tool Corporation. (See Boerder, Anton, assignor.)
Uhlig, Franz, Berlin, Germany. Means for closing and opening skips. No. 1,415,066; May 9.
Underwood Typewriter Company. (See Bates, Harry, assignor.)
Underwood Typewriter Company. (See Johnson, Arthur A., assignor.)
Underwood Typewriter Company. (See Kurowski, Alfred G. F., assignor.)
Underwood Typewriter Company. (See Wherry, John A., assignor.)
United Shoe Machinery Corporation. (See Leveque, Bernard T., assignor.)
United Soda Fountain Company. (See Condon, Ernest L., assignor.)
Uno, Denzo. (See Chikashige, M., and Uno.)
V. M. L. Experimental Limited. (See Lucas, Owen D., assignor.)
Vacuum Company, The. (See Atkinson, William, assignor.)
Van Aalst, Abram. (See Marotta, Gabriel, assignor.)
Van Deventer, William O., assignor to The Indiana Manufacturing Company, Indianapolis, Ind. Pneumatic straw stacker. No. 1,415,736; May 9.
Van Guelpen, Louis J., Cincinnati, Ohio. Shoe-buttoning machine. No. 1,415,737; May 9.
Van Hoogenhuyze, Cornelis J. C. (See Terwen, A. J. L., and van Hoogenhuyze.)
Van Horn, Charles B., Detroit, Mich. Fluid compressor. No. 1,415,852; May 9.
Van Noorden, E., & Co. (See Van Noorden, Ezekiel, assignor.)
Van Noorden, Ezekiel, Brookline, assignor to E. Van Noorden & Co., Boston, Mass. Ventilator. No. 1,415,500; May 9.
Vergin, Frederick T., South Bend, Ind. Antiskid attachment. No. 1,415,738; May 9.
Victor Talking Machine Company. (See Rudnick, George E., assignor.) (Reissue.)
Victoria Falls and Transvaal Power Company, The. (See Price, Bernard, assignor.)
Vincent, Jesse G., assignor to Packard Motor Car Company, Detroit, Mich. Hydrocarbon motor. No. 1,415,067; May 9.
Vodicka, John, assignor to Cinch Fastener Corporation, Chicago, Ill. Curtain fastener. No. 1,415,129; May 9.
Von Bichowsky, Foord, Glendale, Calif. Production of compounds containing silicon and nitrogen. No. 1,415,280; May 9.
Wachtel, Philipp, Frankfort on-the-Main, assignor to Wilhelm Schmidding, Koln-Mannsfeld, Germany, a Firm. Arrangement for purifying and rendering odorless the exhaust gases of internal-combustion engines and the like. No. 1,415,418; May 9.
Wagemaker, Isaac, Grand Rapids, Mich. Card cutting and stacking machine. No. 1,415,210; May 9.
Waggoner, Claude M., assignor of one-half to I. B. Potter, Riverside, Calif. Stepladder. No. 1,415,739; May 9.
Wahl Company. (See Wahl, John C., assignor.)
Wahl, John C., Chicago, Ill., assignor to The Wahl Company, Wilmington, Del. Chasing machine. No. 1,415,211; May 9.
Waldron, John C., Brooklyn, N. Y. Connected driving box. No. 1,415,419; May 9.
Waldon, Sidney D. (See Sherbondy, Earl H., assignor.)
Wale, Alfred E., Coleshill, assignor to A. E. Harris, Leamington, and E. H. Jones, Islington, London, England. Tire cover and the like. No. 1,415,281; May 9.
Wales Adding Machine Company. (See Smith, Angus N., assignor.)
Wall, Willie F., San Francisco, Calif. Expansion counterboring bit for wood. No. 1,415,740; May 9.
Walsh, Michael J., Philadelphia, Pa. Coating composition. No. 1,415,282; May 9.
Walsh, William P., Chicago, Ill. Nonrefillable bottle. No. 1,415,741; May 9.
Ward Baking Company. (See McKinnie, Victor P., assignor.)
Warr, Harold G., Park Ridge, assignor to The P & M Company, Chicago, Ill. Guard-rail clamp. No. 1,415,742; May 9.
Warr, Harold G., assignor to The P & M Company, Chicago, Ill. Rail anchor. No. 1,415,743; May 9.
Warr, Harold G., Park Ridge, assignor to The P & M Company, Chicago, Ill. Rail anchor. No. 1,415,744; May 9.
Warren Featherbone Company. (See Johnston, James G., Jr., assignor.)
Washburne, William H., assignor to F. S. Shaw, Chicago, Ill. Manufacturing laminated valves. No. 1,415,745; May 9.
Watrous, Earl G., Chicago, Ill. Closet seat. No. 1,415,130; May 9.
Watson, Arthur C., Sarnia, Ontario, Canada. Grain-car door. No. 1,415,746; May 9.
Way, Edward J., Johannesburg, Transvaal, South Africa. Delivering and winding cinematograph film. No. 1,415,131; May 9.
Wayne, Herbert N., Washington, D. C. Inner tube for automobile tires. No. 1,415,283; May 9.
Weaver, Frederick A. (See Crawford, J., and Weaver.)
Webster, Samuel T., St. Louis, Mo., assignor, by mesne assignments, to General Electric Company. Regenerative motor-control system. No. 1,415,284; May 9.
Weeks, Palmer D., New York, N. Y. Garment hanger. No. 1,415,747; May 9.
Weibull, Ernst H. W., assignor to Nordiska Kullager Aktiebolaget, Gottenborg, Sweden. Ball or roller cage for antifriction ball or roller thrust bearings. No. 1,415,420; May 9.
Weintraub, Ezechiel, New York, N. Y. Electrical resistor. No. 1,415,748; May 9.
Weisman, Ralph. (See Weissman, S., and Weisman.)
Weissman, Samuel, and R. Weisman, Detroit, Mich. Side thrust support for spring-bed bottoms. No. 1,415,068; May 9.
Weldy, Arthur S., Cleveland, Ohio. Leaf-hinge device for account registers. No. 1,415,212; May 9.
Wellman-Seaver-Morgan Company, The. (See Hoffman, C. C., and McCaslin, assignor.)
Wenger, Aaron, Bayonne, N. J. Phonograph-record holder. No. 1,415,749; May 9.
Wentworth, Philip C., Providence, R. I. Ring traveler. No. 1,415,069; May 9.
Wentworth, Philip C., Providence, R. I. Ring traveler. No. 1,415,070; May 9.
Wentworth, Philip C., Providence, R. I. Ring traveler. No. 1,415,071; May 9.
Wentworth, Philip C., Providence, R. I. Ring traveler. No. 1,415,073; May 9.
Wentworth, Philip C., Providence, R. I. Twisting traveler. No. 1,415,072; May 9.
Wepplo, Isaac W., Chicago, Ill. Pump. No. 1,415,617; May 9.
Western Electrical Company. (See Williams, Robert R., assignor.)
Western Union Telegraph Company, The. (See Milnor, Joseph W., assignor.)
Westinghouse Air Brake Company, The. (See Farmer, Clyde C., assignor.)
Wheeler, John L., St. Louis, and E. A. Reed, Maplewood, assignors to The Measuregraph Company, St. Louis, Mo. Floating shear control for pressure rollers. No. 1,415,501; May 9.
Wherry, John A., New Orleans, La., assignor to Underwood Typewriter Company, New York, N. Y. Typewriting machine. No. 1,425,750; May 9.
White, John W., assignor to General Motors Corporation, Detroit, Mich. Tube-welding machine. No. 1,415,848; May 9.
White, Robert W., Elwood, Ind., assignor to Pittsburgh Plate Glass Company. Mold for casting clay articles. No. 1,415,213; May 9.
White, William E., Chicago, Ill. Concrete beam chair. No. 1,415,074; May 9.
White, William E., Chicago, Ill. Making spacing device for reenforcing bars. No. 1,415,285; May 9.
Whitredge, John C., and J. C. Larsen, assignors to The Buckeye Steel Castings Co., Columbus, Ohio. Brake-hanger support for trucks. No. 1,415,132; May 9.

Whittemore, Allan P., Charleston, W. Va. Apparatus for drawing glass. No. 1,415,133; May 9.
Wickwire Spencer Steel Corporation. (See Southwick, William S., assignor.)
Wilbur, Bertrand K., Haverford, assignor to H. O. Wilbur & Sons, Inc., Philadelphia, Pa. Device for filling cartons or boxes. No. 1,415,075; May 9.
Wilbur, Frederick H., assignor of one-fourth to G. A. Reynolds and one-fourth to S. W. Reynolds, Binghamton, N. Y. Vehicle wheel. No. 1,415,751; May 9.
Wilbur, H. O., & Sons, Inc. (See Wilbur, Bertrand K., assignor.)
Williams, David, New Orleans, La. Tree protector. No. 1,415,134; May 9.
Williams, Herbert H. (See Ostrander, A. E., and Williams.)
Williams, Robert R., Roselle, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Insulating composition. No. 1,415,076; May 9.
Williams, White & Company. (See Kline, George P., assignor.)
Williamson, John A., Denver, Colo. Safety razor. No. 1,415,077; May 9.
Wilson, Edward, assignor to Wilson Engineering Company, St. Louis, Mo. Metallic packing. No. 1,415,078; May 9.
Wilson Engineering Company. (See Wilson, Edward, assignor.)
Wilson, Ezekiel J., East Greenbush, assignor to F. C. Huyck & Sons, Rensselaer, N. Y. Loom. No. 1,415,286; May 9.
Winkler, Carl, Berne, Switzerland. Device for interleaving sheets printed in cylinder-flat-bed machines. No. 1,415,752; May 9.
Winkler, Gustav, Dessau, Germany. Method and device for handling preserving jars. No. 1,415,618; May 9.
Wirth, Charles W., Millvale, Pa. Toy railroad gate set. No. 1,415,753; May 9.
Wittmann, Joseph H., Kansas City, Mo. Bed. No. 1,415,135; May 9.
Woidich, Franz. (See Schill, E., and Woidich.)
Wolf, William F., Somerville, N. J. Centrifugal casting machine. No. 1,415,421; May 9.
Wood, Andrew C., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill. Magnetic speedometer. No. 1,415,079; May 9.
Woods, Phineas S., Smithville, Mo. Aeroplane attachment. No. 1,415,754; May 9.
Woolson, Lionel M., assignor to Packard Motor Car Company, Detroit, Mich. Hydrocarbon motor. No. 1,415,080; May 9.
Wooster, Warren W., Berlin, N. J. Indicator for downward deflection of railway rails. No. 1,415,287; May 9.
Worthington Pump and Machinery Corporation. (See Folsom, Robert H., assignor.)
Wright, Charles L., Kansas City, Mo. Thief alarm for automobiles. No. 1,415,081; May 9.
Wright, Edward, Dayton, Ohio. Tire core. No. 1,415,755; May 9.
Wyckoff & Lloyd Company. (See Lloyd, Thomas H., assignor.)
Young, William J., assignor to Young's Wrought Iron Works, Rochester, N. Y. Metal-twisting mechanism. No. 1,415,502; May 9.
Young's Wrought Iron Works. (See Young, William J., assignor.)
Yurow, Andrew, New York, N. Y. Lock. No. 1,415,503; May 9.
Zander, John, Chicago, Ill. Refrigerating apparatus. No. 1,415,504; May 9.
Ziska, Adam, Jr., Milwaukee, Wis., assignor to G. W. Ziska, Chicago, Ill. Lamp shade and making. No. 1,415,136; May 9.
Ziska, George W. (See Ziska, Adam, Jr., assignor.)
Zook, David F., Pasadena, Calif. Variable-pitch propeller. No. 1,415,756; May 9.
Zwiebelson, Abraham, New York, N. Y. Corset. No. 1,415,757; May 9.

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

American Fabrics Company, The. (See Page, Samuel H., assignor.)
American Fabrics Company, The. (See Philips, Hans A., assignor.)
Becker, Joseph G., Pittsburgh, Pa. Toy. No. 60,932; May 9.
Berlin, Harry S., assignor to The Victor Rubber Company, Springfield, Ohio. Pneumatic-tire tread. No. 60,933; May 9.
Cannon, James, Long Branch, N. J. Flag of the Ethiopian race. No. 60,934; May 9.
Draycott, John, Pawtucket, assignor to Richmond Lace Works, Alton, R. I. Lace. No. 60,935; May 9.
Essex Rubber Company. (See Oakley, Laurence M., assignor.)
Fauser, Gustave M., New York, N. Y., assignor to Model Mills Company, Philadelphia, Pa. Rug. Nos. 60,936–7; May 9.
Gerbensky, Alfred, Okauchee, Wis. Toy. No. 60,938; May 9.
Greenhood, Charlotte, Berkeley, Calif. Doll. Nos. 60,939–40; May 9.
John, Alfred L., New York, N. Y. Brush. No. 60,941; May 9.
MacKay, Frances, Norwalk, Conn. Boy's suit. No. 60,942; May 9.
Model Mills Company. (See Fauser, Gustave M., assignor.)
Monk, George B., San Francisco, Calif. Emblem, badge, button, pin, or article of a similar nature. No. 60,943; May 9.
Ne Page, Justus F., Seattle, Wash. Street lamp. No. 60,944; May 9.
Oakley, Laurence M., assignor to Essex Rubber Company, Trenton, N. J. Resilient heel lift. No. 60,945; May 9.
Page, Samuel H., Stratford, Conn., assignor to The American Fabrics Company. Lace. No. 60,946; May 9.
Patrich, Jacob N., New York, N. Y. Teething ring. No. 60,947; May 9.
Philips, Hans A., Stratford, Conn., assignor to The American Fabrics Company. Lace. No. 60,948; May 9.
Richmond Lace Works. (See Draycott, John, assignor.)
Victor Rubber Company, The. (See Berlin, Harry S., assignor.)

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

Allen Auto Specialty Co., The. Automobile tire covers. No. 154,818; May 9.
Ambassador Chocolate Company, Baltimore, Md. Certain named foods. No. 154,775; May 9.
American Hominy Company, Indianapolis, Ind., and Decatur, Ill. Corn sirup for food purposes. No. 154,776; May 9.
American University of Commerce, Chicago, Ill. Manuals, lesson sheets and pamphlets, and answer sheets. No. 154,819; May 9.
Astra Bent Wood Furniture Co., New York, N. Y. Bent wood furniture. No. 154,820; May 9.
A/S Trondhjem Canning and Export Co., Trondhjem, Norway. Canned fish. No. 154,812; May 9.
Baker Ice Cream Company, Cleveland, Ohio. Ice cream and ices. No. 154,821; May 9.
Bastanchury Ranch Company, Fullerton, Calif. Fresh citrus fruits. No. 154,777; May 9.
Batcheller, George C., & Co., New York, N. Y. Corsets and underwaists. No. 154,822; May 9.
Breeze, Herbert J., Portland, Oreg. Wooden flooring. No. 154,823; May 9.
Brewster, Gordon & Co. Inc., Rochester, N. Y. Coffee. No. 154,778; May 9.
Bunch, Edward T., Philadelphia, Pa. Salted peanuts, peanut butter and sandwiches, chocolate bars. No. 154,779; May 9.
Caswell, William L., Old Orchard, Me. Fondant or base for candy and other like confections. No. 154,780; May 9.
Cook, Charles I., Menominee, Mich. Coffee. No. 154,781; May 9.
Corona Coal Company, Birmingham, Ala. Coal. No. 154,782; May 9.
Covina Orange Growers Association, Covina, Calif. Fresh citrus fruits—namely, oranges. No. 154,783; May 9.
Dinuba Fruit Growers Company, Dinuba, Calif. Fresh grapes. No. 154,784; May 9.
Eclipse Light Company, New York, N. Y. Bowls, shades, chimneys, canopies, fitters, domes, etc. No. 154,824; May 9.
Eibel, Christian H., New York, N. Y. Fountain, stylographic, and common writing pens, holders, pencils, and crayons. No. 154,825; May 9.
Eline's Incorporated, Milwaukee, Wis. Chocolate. No. 154,786; May 9.
Eisenberg, Ralph M., New York, N. Y. Electrotypes. No. 154,785; May 9.
Fowler Grape Growers Association, Fowler, Calif. Fresh deciduous fruits—namely, malagas. No. 154,787; May 9.
Friend, Harry L., Boston, Mass. Coffee flavor in solid, powdered, and liquid form. Nos. 154,788–9; May 9.
Glafke, W. B., Co., Portland, Oreg. Fresh deciduous fruits—namely, apples. No. 154,790; May 9.
Godel, E., & Sons, Peoria, Ill. Hams, boiled, skinned, slicing, picnic, and bacon, and bacon squares. No. 154,791; May 9.
Haynes-Langenberg Manufacturing Co., St. Louis, Mo. Coal and wood heating and cooking stoves, ranges, and heating furnaces. No. 154,792; May 9.
Hoefler Ice Cream Company, Buffalo, N. Y. Ice cream. No. 154,793; May 9.
Hurd, George B., & Co., New York, N. Y. Writing paper and correspondence envelopes. No. 154,826; May 9.
Ingersoll-Rand Company, Jersey City, N. J., and New York, N. Y. Hose composed of rubber and fabric. No. 154,827; May 9.
International India Rubber Corporation, South Bend, Ind. Rubber tires. No. 154,828; May 9.
Johnson, Jesse C., San Francisco, Calif. Burning equipment and burners. No. 154,829; May 9.
Keystone Sanitary Supply Company, Greensburg, Pa. Unimpregnated dusters. No. 154,794; May 9.
La Societe Anonyme des Amidonnerie & Rizerie de France, Marquette-Lille, France. Sauce and ingredient for sauces. No. 154,795; May 9.
Lawndale Wholesale Grocery Company, Chicago, Ill. Canned tomatoes and fruit preserves. No. 154,830; May 9.
Leh, Harold M., Atlantic City, N. J. Cleaning and polishing composition for removing and preventing fog on glass. No. 154,831; May 9.
Lindberg, Axel T., Providence, R. I. Soap powder. No. 154,832; May 9.
Littlefield & Steere Co., Knoxville, Tenn. Chocolates and candies. No. 154,796; May 9.
Meinecke & Company, New York, N. Y. Certain named medical and surgical appliances. No. 154,834; May 9.
Metal Hose & Tubing Co. Inc., Brooklyn, N. Y. Fabric-covered rubber hose with metal lining. No. 154,835; May 9.
Milloglav, J. P., Los Angeles, Calif. Potatoes in their natural state. No. 154,797; May 9.
Minneapolis Drug Company, Minneapolis, Minn. Combs, shoehorns, and buttonhooks. No. 154,836; May 9.
Morrell, John, & Company, Ottumwa, Iowa. Lard. No. 154,798; May 9.
Murray, John H., Boston, Mass. Candies, fancy ices, and cakes. No. 154,799; May 9.
Mystol Manufacturing Co., Glens Falls, N. Y. Food-flavoring extract. No. 154,800; May 9.
National Paper Products Company, San Francisco, Calif. Toilet tissue paper. No. 154,837; May 9.
Nunnally Company, The, Atlanta, Ga. Candies. No. 154,801; May 9.
Parks, A. L., Tea Company, Boston, Mass. Coffee. No. 154,838; May 9.
Parks, A. L., Tea Company, Boston, Mass. Coffee, tea, and cocoa. No. 154,802; May 9.
Parsons Paper Company, Holyoke, Mass. Printing and writing paper. No. 154,839; May 9.
Patrick-Young, F. E., Co., Richmond, Va. Lard substitute. No. 154,803; May 9.
Pollack, Max, & Co., Inc., New York, N. Y. Sewing threads. No. 154,833; May 9.
Priest, Chase, Grant, Iowa. Yeast used in the preparation of bread. No. 154,883; May 9.
Rising, B. D., Paper Company, Housatonic, Mass. Bond, linen, ledger, bristol, wedding, etc., papers generally. Nos. 154,840–2; May 9.
Roddenbery Bros., Cairo, Ga. Cane sirup. No. 154,805; May 9.
Sanford Pen Company, Inc., Brooklyn, N. Y. Stylographic pens. No. 154,843; May 9.
Scherer & Fix, Utica, N. Y. Coffee. No. 154,806; May 9.
Smith, L. C., & Bros. Typewriter Co., Syracuse, N. Y. Typewriting machines and parts thereof. No. 154,844; May 9.
Smith Rubber & Tire Co. Inc., Garfield, N. J. Rubber automobile tires. No. 154,845; May 9.
Standard Oil Company (Incorporated in New Jersey), Bayonne, N. J. Leather oils and polishes and paraffin wax for washing purposes. No. 154,846; May 9.
Standard Red Cedar Chest Co., The, Altavista, Va. Cedar chests. No. 154,847; May 9.
Standard Oil Company (Incorporated in New Jersey), Bayonne, N. J. White mineral oil. No. 154,808; May 9.
Swift and Company, Chicago, Ill. Hog meat. No. 154,809; May 9.
Thode, Alfred, Brooklyn, N. Y. Candy. No. 154,810; May 9.
Torreño, Manuel Z., San Antonio, Tex. Prepared chocolate for table use. No. 154,811; May 9.
True Shape Hosiery Co., Philadelphia, Pa. Hosiery. No. 154,848; May 9.
Up-To-Date Candy Mfg. Co., New York, N. Y. Candy. No. 154,849; May 9.
Victor Rubber Company, The, Springfield, Ohio. Tire casings and tubes. No. 154,850; May 9.
Virginia Dare Company, The, Baltimore, Md. Candies. No. 154,813; May 9.
Voegele & Dinning Co., The, Mansfield, Ohio. Candy. No. 154,814; May 9.
Warren Featherbone Company, The, Three Oaks, Mich. Certain named notions. No. 154,851; May 9.
Wenatchee Skookum Growers, Wenatchee, Wash. Fresh deciduous fruits. No. 154,815; May 9.
Western Tablet and Stationery Company, St. Joseph, Mo. Writing tablets. No. 154,852; May 9.
Wirth Chocolate Company, Boston, Mass. Candy. No. 154,816; May 9.
White-Washburne Company Inc., Hinsdale, N. H. Toilet paper. No. 154,853; May 9.
Wood, Harry N., Boise, Idaho. Partially-dried and dried prunes. No. 154,817; May 9.
Wm. Schluderberg-T. J. Kurdle Co., The, Baltimore, Md. Lards. No. 154,807; May 9.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

Augert, S. & J., Bros., Philadelphia, Pa., and Atlantic City, N. J. "Caffeer." (For Nonalcoholic, Noncereal, Maltless Beverages Sold as Soft Drinks.) No. 24,330; May 9.

Burns, George J., Youngstown, Ohio. "Trusco, The Superior Lubricating Oil." (For Lubricating Oils.) No. 24,331; May 9.

Butler, John A., Denver, Colo. "Cackle-More." (For Poultry Food.) No. 24,333; May 9.

Carcel, Pablo, New York, N. Y. "Anadora." (For Cigars.) No. 24,334; May 9.

Carpenter-Morton Co., Boston, Mass. "Carmote Red Seal Floor Enamel." (For Carmote Red Seal Floor Enamel.) No. 24,332; May 9.

Clark, Wm. H., & Sons, Norfolk, Va. "Berkshire Pork Sausage Made and Guaranteed by Wm. H. Clark & Sons, Norfolk, Virginia." (For Sausages.) No. 24,335; May 9.

De Long Hook & Eye Co., Philadelphia, Pa. "De Long Hair Net." (For Hair Nets.) No. 24,336; May 9.

Eastern Pin Ticket & Tag Co., Perkasie, Pa. "'Roll' Your Label Troubles Away." (For Gummed Labels in Rolls.) No. 24,337; May 9.

Ellis, W. E., Company, Haverhill, Mass. "Staso." (For Shoe Laces.) No. 24,338; May 9.

Farmers' Veterinary Service, Inc., Kingston, N. Y. "Farmers' Home Veterinary Cabinet." (For Veterinary Cabinets.) No. 24,339; May 9.

Glick, Max, Company, The, Cleveland, Ohio. "My Sweetie." (For Candies.) No. 24,340; May 9.

Green, William T., Summit, N. J. "Yeast O Depilatory." (For a Depilatory.) No. 24,341; May 9.

Hay, H. H., Sons, Portland, Me. "Five Fruit." (For a Fruit Sirup.) No. 24,342; May 9.

Heller, B., & Company, Chicago, Ill. "Heller's Fancy-Pastry Pudding Powder." (For Paper Cartons Containing Heller's Fancy-Pastry Pudding Powders.) No. 24,343; May 9.

Heller, B., & Company, Chicago, Ill. "Heller's Snow-Drift." (For Containers Holding Heller's Snow-Drift, a Preparation Used for Making a Marshmallow Filling and Topping.) No. 24,344; May 9.

Heller, B., & Company, Chicago, Ill. "B. Heller & Co's. Zanzibar-Carbon Indelible Ink." (For Glass Bottles Holding B. Heller & Co.'s Zanzibar-Carbon Indelible Ink.) No. 24,345; May 9.

Heller, B., & Company, Chicago, Ill. "B. Heller & Co's Zanzibar-Carbon Indelible Ink Eradicator." (For Glass Bottles Holding B. Heller & Co.'s Zanzibar-Carbon Indelible Ink Eradicator, a Preparation for Removing Indelible Ink Marks and Stains.) No. 24,346; May 9.

Hirsch Bros. & Co. Incorporated, Louisville, Ky. "Paramount." (For Salad Dressing.) No. 24,347; May 9.

Hood River Canning Company, Hood River, Oreg. "Mountain Grown." (For Apples.) No. 24,348; May 9.

Hoppe, Louis H., and William L. Bruggman, St. Paul, Minn. "Ice Pie." (For Ice-Cream Confection.) No. 24,349; May 9.

Kirby-Cogeshall Co., Milwaukee, Wis. "The Great T. Puzzle." (For Packages Containing Letter Puzzles.) No. 24,350; May 9.

Menasha Printing and Carton Company, Menasha, Wis., assignor to Valley Butter Company, Pittsburgh, Pa. "Golden West." (For Cartons Containing Butter.) No. 24,351; May 9.

Menasha Printing and Carton Company, Menasha, Wis., assignor to Valley Butter Company, Pittsburgh, Pa. "Red Seal." (For Cartons Containing Butter.) No. 24,352; May 9.

Metro Chocolate Co. Inc., The, Brooklyn, N. Y. "Chesterfield." (For Chocolate Caramels.) No. 24,353; May 9.

Milwaukee Paper Box Company, Milwaukee, Wis. "Cherries." (For Boxes Containing Cherries in Liquid Covered With Milk Chocolate.) No. 24,354; May 9.

Morrill, James P., Reno, Nev. "Summer and Winter De Lite Ice Cream Stick That Hits Right." (For an Ice-Cream Stick.) No. 24,355; May 9.

Motor-Kleen Corporation, Long Island City, N. Y. "Motor-Kleen." (For a Preparation for Removing Carbon.) No. 24,356; May 9.

Murwood Associates, Worcester, Mass. "Child Ed-U-Kat-Her." (For Boxes or Packages Containing Pasteboard Cut-Outs of Fanciful Figures.) Nos. 24,357–9; May 9.

Park Laboratory Company, San Antonio, Tex. "Grandma's Absorbo." (For a Penetrating Salve.) No. 24,360; May 9.

Primrose Silk Stores, Inc., New York, N. Y. "Primrose Silks." (For Silk.) No. 24,361; May 9.

Pumpelly-Howe Tobacco Company, Elmira, N. Y. "Ploughman." (For Cigars.) No. 24,362; May 9.

Real Silk Hosiery Mills, Indianapolis, Ind. "Exclusive Features of Real Silk Fashioned Hosiery." (For Containers for Hosiery.) No. 24,363; May 9.

Sanford Importing Co., Chicago, Ill. "Chu Chin Powder Puffs." (For a Merchandise Card for Powder Puffs.) No. 24,364; May 9.

Shand, Chas. A., Huntington, W. Va. "System Tone." (For a Proprietary Medicine.) No. 24,365; May 9.

Sussman, Wormser & Co., San Francisco, Calif. "Century." (For Canned String Beans.) No. 24,366; May 9.

Sussman, Wormser & Co., San Francisco, Calif. "18 Karat." (For Canned Pears.) No. 24,367; May 9.

Valley Butter Company. (See Menasha Printing and Carton Company, assignor.)

Waitt & Bond, Inc., Newark, N. J. "Totem." (For Cigars.) No. 24,368; May 9.

Waitt & Bond, Inc., Newark, N. J. "Blackstone." (For Cigars.) No. 24,369; May 9.

Waitt & Bond, Inc., Newark, N. J. "Endicott." (For Cigars.) No. 24,370; May 9.

Ward Baking Company, New York, N. Y. "Banquet." (For Macaroons.) No. 24,371; May 9.

Ward Baking Company, New York, N. Y. "Ward's Soft Bun Bread." (For Bread.) No. 24,372; May 9.

White & Wyckoff M'f'g Co., Holyoke, Mass. "Olde Harlem." (For Boxes of Stationery and Writing Tablets.) No. 24,374; May 9.

White Sulphur Springs, Inc., White Sulphur Springs, Va. "W S S Water." (For Mineral Waters.) No. 24,373; May 9.

ALPHABETICAL LIST OF REGISTRANTS OF PRINTS.

Adler, H. & Bro., New York, N. Y. "X X X." (For Advertising Purposes for Hair Bow Ribbons.) No. 6,096; May 9.

B. V. D. Company, The, New York, N. Y. "1922 B. V. D. Magazine Ad." (For Advertising Purposes for Athletic Underwear.) No. 6,100; May 9.

B. V. D. Company, The, New York, N. Y. "1922 Boys' B. V. D. Magazine Ad." (For Advertising Purposes for Athletic Underwear.) No. 6,101; May 9.

Baum, Kravat & Baum, New York, N. Y. "Dresses that Really Slenderize the Stout Woman." (For Advertising Purposes for Ladies' Dresses.) No. 6,097; May 9.

Bay State Fibre Company, The, Boston, Mass., Providence, R. I.; New York, N. Y., and Philadelphia, Pa. "Mountain Dew." (For Advertising Purposes for a Furniture Polish.) No. 6,098; May 9.

Byron Weston Company, Dalton, Mass. "Byron Weston Co., Dalton, Mass., Manufacturers of Linen Ledger and Bond Papers." (For Advertising Purposes for Paper.) No. 6,099; May 9.

Coleman, Aloysius J., New York, N. Y. "'Name-Pencils.'" (For Advertising Purposes for Pencils.) No. 6,102; May 9.

Elgin National Watch Company, Chicago, Ill. "The Value of Time." (For Advertising Purposes for Watches.) No. 6,103; May 9.

Elgin National Watch Company, Chicago, Ill. "The Pageant of Time." (For Advertising Purposes for Watches.) No. 6,104; May 9.

Engert, George J., Spokane, Wash. "Pan Kor." (For Advertising Purposes for Hollow Concrete Walls.) No. 6,105; May 9.

Heinz, H. J., Co., Pittsburgh, Pa. "Why Millions Eat Them—Heinz Oven Baked Beans." (For Advertising Purposes for Heinz Oven-Baked Beans.) No. 6,106; May 9.

Kappus, John M., Cleveland, Ohio. "The Man in the Moon Brings Cheerfulness Over Night." (For Advertising Purposes for Laxative Tablets.) No. 6,107; May 9.

Kappus, John M., Cleveland, Ohio. "Our Own Oil Liniment." (For Advertising Purposes for Liniments.) No. 6,108; May 9.

Mayer, Oscar, & Company, Inc., Chicago, Ill. "Oscar Mayer's Approved Meat Products." (For Advertising Purposes for Meat Products of Pork Variety.) No. 6,109; May 9.

Mennen Company, The, Newark, N. J. "Mamma's Inside Buying my Mennen Talcum." (For Advertising Purposes for Mennen Talcum.) No. 6,110; May 9.

Milwaukee Paper Box Company, Milwaukee, Wis. "Aunt Molly's Butter Creams." (For Advertising Purposes for Butter Creams.) No. 6,111; May 9.

Milwaukee Paper Box Company, Milwaukee, Wis. "Roberta Sugar Wafers." (For Advertising Purposes for Sugar Wafers with Cream Filling.) No. 6,112; May 9.
Milwaukee Paper Box Company, Milwaukee, Wis. "Uncle Tom's Nigger Toe." (For Advertising Purposes for Chocolate Bars Containing a Niggertoe.) No. 6,113; May 9.
Milwaukee Paper Box Company, Milwaukee, Wis. "Gunz-Durler Candies." (For Advertising Purposes for Candy.) No. 6,114; May 9.
Milwaukee Paper Box Company, Milwaukee, Wis. "Bachelor Almond Bar." (For Advertising Purposes for an Almond Bar.) No. 6,115; May 9.
Milwaukee Paper Box Company, Milwaukee, Wis. "Coco Ridges." (For Advertising Purposes for Chocolate-Covered Cocoanut Bars.) No. 6,116; May 9.
Palmolive Company, The, Milwaukee, Wis. "Pretty Girls Have Always Known the Secret." (For Advertising Purposes for Palmolive Soap.) No. 6,117; May 9.
Real Silk Hosiery Mills, Indianapolis, Ind. "Exclusive Features of Real Silk Fashioned Hosiery." (For Advertising Purposes for Hosiery.) No. 6,118; May 9.
Riesland, Daniel W., Duluth, Minn. "Therapeutic Traction Couch." (For Advertising Purposes for the Riesland Therapeutic Traction Couch.) Nos. 6,119–20; May 9.
Steinfeld Bros., New York, N. Y. "Homaid Freezer." (For Advertising Purposes for Ice-Cream Freezers.) No. 6,121; May 9.
Steinfeld Bros., New York, N. Y. "Snow Peak Freezer." (For Advertising Purposes for Ice-Cream Freezers.) No. 6,122; May 9.
Steinfeld Bros., New York, N. Y. "Frigid Freezer." (For Advertising Purposes for Ice-Cream Freezers.) No. 6,123; May 9.
Underwood Typewriter Company, New York, N. Y. "Underwood Soundproof Cabinet." (For Advertising Purposes for Typewriting Machines.) No. 6,124; May 9.
Wade, Frank C., West Liberty, Ohio. "The Original Doctor John Sloan Liniment." (For Advertising Purposes for a Liniment for Use on Man or Beast.) No. 6,125; May 9.

ALPHABETICAL LIST OF TRADE-MARK APPLICANTS.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Aaron-Fleischer Silk Co., St. Louis, Mo. Silks, both in the piece and the bolt. No. 130,254; May 9.
Aaron, Israel, New York, N. Y. Little cigars. No. 149,312; May 9.
Abshear, Charles D., doing business as National Laboratories, San Antonio, Tex. Liver medicine in the form of capsules. No. 157,246; May 9.
Air-O-Phone Corporation, New York, N. Y. Wireless apparatus. No. 159,777; May 9.
Aktiengesellschaft für Chemische Produkte vormals H. Scheidemandel, Berlin, Germany. Cosmetics for promoting the growth of human hair. No. 136,659; May 9.
Ambco, Inc., New York, N. Y. Clothing and wearing apparel for men, women, and children. No. 147,081; May 9.
American Chemical Works, The, San Francisco, Calif. Noble-metal precipitants. No. 157,204; May 9.
American Lady Corset Co., Detroit, Mich. Corset waists, brassières, bandeaux, girdles, hose supporters. No. 149,534; May 9.
American Wholesale Corporation. (Baltimore Bargain House.) Baltimore and Cumberland, Md. Children's and misses' garters. No. 155,293; May 9.
American Wholesale Corporation, (Baltimore Bargain House.) Baltimore and Cumberland, Md. Children's and misses' garters. No. 155,296; May 9.
Amoskeag Manufacturing Company, Manchester, N. H. Cotton piece goods. No. 142,822; May 9.
Ashcroft, Moses, trading as Moon Chuckle Products Co., Maywood and Chicago, Ill. Nonalcoholic, noncereal, maltless beverage and sirup for making the same. No. 157,401; May 9.
Asquith, William G., doing business as The Astrom Manufacturing Co., London, England. Chemical substances used for the treatment of coughs and colds in horses and husk in cattle. No. 144,996; May 9.
Astrom Manufacturing Co., The. (See Asquith, William G.)
Audit Bureau of Circulations, Chicago, Ill. Statements, auditors' reports and bulletins. No. 157,403; May 9.
Automatic Bearing Co. Inc., Genesco, Ill. Bolts. No. 153,029; May 9.
Backers, William O., San Francisco, Calif. Dietary cookies. No. 153,330; May 9.
Bailly, Marcel, Paris, France. Soap. No. 152,782; May 9.
Balbia Chemical Mfg. Co. (See Caporale, Severino.)
Barnett, Elmer, Waco, Tex. General tonic for medicinal purposes. No. 162,097; May 9.
Barrington Manufacturing Corporation, Dover, Del., and Mt. Vernon, N. Y. Washing compound. No. 157,471; May 9.
Batcheller, George C., & Co., New York, N. Y. Corsets. Nos. 154,582–3; May 9.
Beckwith, William A., Worcester, Mass. Steel-hardening solutions. No. 155,855; May 9.
Berberian, Levon, Providence, R. I. Cigars and cigarettes. No. 152,696; May 9.
Beresford, Lionel B., doing business as Elcaptain Toy and Game Co., Beverly, N. J. Board games. No. 140,775; May 9.
Bergougnan Rubber Corporation, Wilmington, Del., and Trenton, N. J. Rubber tires. No. 159,135; May 9.
Berkeley Company, Providence, R. I. Cambrics in the piece. No. 156,881; May 9.
Berliner, H. S., trading as The Compo Company, Lachine, Quebec, and Toronto, Canada. Talking machines, talking-machine parts, records, and needles. No. 154,430; May 9.
Bernstein, Samuel, doing business as Reliable Household Specialties Manufacturing Company, New York, N. Y. Washing compounds. No. 157,597; May 9.
Bettalyte Incandescent Lamp Co., Inc., New York, N. Y. Incandescent electric lamps. No. 159,339; May 9.
Biflex Products Company, Waukegan, Ill. Automobile bumpers and parts thereof. No. 152,230; May 9.
Blackman, John J., doing business as Pepsol Company, Atlantic City, N. J. Tooth paste. No. 157,296; May 9.
Blair B. Reilly, doing business as Cyclone Rat Destroyer Company, Audubon, Iowa. Rat, mice, and squirrel poison. No. 157,177; May 9.
Blanding and Blanding, Inc., Providence, R. I. Liquid petrolatum combined with antiseptic and germicidal ingredients for constipation. No. 157,709; May 9.
Bock Novelty and Manufacturing Company. (See Hachmann, Frederick, assignor.)
Bonovin, Limited, Liverpool, England. Medicated wine tonic. No. 138,836; May 9.
Borgfeldt, George, & Co., New York, N. Y. Electric household appliances. No. 157,472; May 9.
Borgfeldt, George, & Co., New York, N. Y. Toilet soap. No. 155,013; May 9.
Bourjois, A., & Co. Inc., New York, N. Y. Toilet powders and compacts. No. 155,799; May 9.
Bowelax Co. (See Loesch, Ellsworth.)
Bozan Sales Corporation. (See Brazilian Coffee Houses, Inc., assignor.)
Branower, George I., doing business as Say Drug Products Co., New York, N. Y. Preparations for the treatment of coughs and colds. No. 154,427; May 9.
Brazilian Coffee Houses, Inc., assignor to Bozan Sales Corporation, New York, N. Y. Coffee. No. 156,880; May 9.
Brokaw, D. D., & Son, New York, N. Y. Finger rings, brooches, bar pins, lavallières, and scarfpins. No. 154,479; May 9.
Bruce, E. L., Company, Little Rock, Ark., and Memphis, Tenn. Sheets and strips of veneer for linings for closets, chests, and the like. No. 156,883; May 9.
Buettell Brothers Company, Dubuque, Iowa. Baseballs, baseball bats and gloves, and footballs. No. 158,848; May 9.
Callow, Edwin, Washington, D. C. Humorous newspaper articles and circulars issued from time to time. No. 106,518; May 9.
Capewell Horse Nail Company, The, Hartford, Conn. Horseshoe nails. Nos. 159,496–7; May 9.
Caporale, Severino, doing business as The Balbia Chemical Mfg. Co., Philadelphia, Pa. Hair tonic. No. 156,146; May 9.
Carlson, C. G., Ice Cream Company, The, Denver, Colo. Ice cream. No. 156,261; May 9.
Carmela Nieto de Herrera e Hijos, Habana, Cuba, and New York, N. Y. Perfumes, toilet water, toilet powders, etc. No. 156,217; May 9.
Carricite Company, The, Chicago, Ill. Substance for mending burned-out electric heating elements. No. 156,186; May 9.
Century Knitting Mills, New York, N. Y. Knit jackets. No. 154,959; May 9.
Chase Manufacturing Company. (See Chase, Sidney M.)
Chase, Sidney M., doing business as Chase Manufacturing Company, Minneapolis, Minn. Skiis. No. 158,468; May 9.
Chatfield, Frederick H., Cincinnati, Ohio. Package containing two paper towels and a piece of soap. No. 151,660; May 9.
Chemische Fabrik von Heyden Aktiengesellschaft, Radebeul, Germany. Bottle caps. No. 152,955; May 9.
Cholsanin A. G., Berne, Switzerland. Preparations for the treatment of diseases of the liver. No. 150,802; May 9.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Chromol Manufactory of Chemical Products, Inc., The, Vienna, Austria. Coloring and conserving means in the nature of a paint for leather, iron, and wood. No. 138,847; May 9.

Churchill & Alden Co., Brockton, Mass. Shoes and boots of leather, canvas, woolen cloth, rubber, etc. No. 147,913; May 9.

Clark, Robert S., Olympia, Wash. Medicinal preparation used for the reduction of inflammations. No. 153,924; May 9.

Cohn-Hall-Marx Co., New York, N. Y. Cotton piece goods. No. 157,358; May 9.

Cohrs, Henry, Hanover, Germany. Pharmaceutical preparation used internally for promoting the growth of hair. No. 156,214; May 9.

Colgate & Co., Jersey City, N. J., and New York, N. Y. Soaps. No. 145,549; May 9.

Colonial Dames Beautifier Company, Los Angeles, Calif. Beautifier, (paste form,) rouge, shampoo, hair tonic, depilatory, eyebrow pencil. No. 147,411; May 9.

Compo Company, The. (See Berliner, H. S.)

Concentrated Products Corporation, Carlstadt, N. J., and New York, N. Y. Shampoo compound. No. 155,736; May 9.

Conner and Walters Company, Inc., Charlotte, N. C. Medicated toilet preparation for treatment of the hair and scalp. No. 157,474; May 9.

Crescent Company, New York, N. Y. Sweaters, bathing suits, knitted jackets, etc. No. 154,790; May 9.

Crown Margarin Company, Inc., St. Louis, Mo. Evaporated milk. No. 156,825; May 9.

Crystal Soda Water Works. (See Gibson, William J.)

Cyclone Rat Destroyer Company. (See Reilly, Blair B.)

D. & C. Specialty Co. (See Davey, Wesley C.)

Dairy Association Co. Inc., Lyndonville, Vt. Medicine for cows. No. 155,997; May 9.

Davey, Wesley C., doing business as D. & C. Specialty Co., Hazleton, Pa. Powder insecticide. No. 157,516; May 9.

Davies-Young Soap Company, The, Dayton, Ohio. Green soap, potash soap, base soap, vegetable-oil soap, etc. No. 158,604; May 9.

Designer Publishing Company, The, New York, N. Y. Publication in the nature of instruction sheets or charts for dressmakers' use. No. 155,809; May 9.

Detroit News, The. (See Evening News Association.)

Diamond Braiding Mills, Chicago Heights, Ill. Shoe laces. No. 155,162; May 9.

Dunlap Medicine Co., Columbus, Ohio. Medicinal preparations for catarrh in head and ear, coughs, colds, etc. No. 156,623; May 9.

Eatabita Cheese Company. (See R. H. Vollmer.)

Economy Fuse and Manufacturing Co., Chicago, Ill. Fuses. No. 156,784; May 9.

Edwardsen, Cris A., doing business as D. L. Witmer & Bro., Philadelphia, Pa. Windshield cleaners of the squeegee type. No. 155,164; May 9.

Eisner, Sigmund Company, Red Bank, N. J. Men's and boys' outer wearing negligée and work shirts. No. 142,334; May 9.

Elcaptain Toy and Game Co. (See Beresford, Lionel B.)

Electrical & Specialty Supply Co., Chicago, Ill. Illuminated traffic markers for streets and roads. No. 157,267; May 9.

Electrogene Chemical Co., The, Cleveland, Ohio. Electrolyte compound for batteries. No. 156,267; May 9.

Evening News Association, doing business as The Detroit News, Detroit, Mich. Newspaper section. No. 156,785; May 9.

Eyben, René, doing business as Hujarvis, New York, N. Y. Perfumes. No. 157,479; May 9.

Fairchild Bros. & Foster, New York, N. Y. Fermented milk. No. 156,364; May 9.

Famous Manufacturing Company, The. (See Harden, Harry.)

Fehl, Geo., Blue Ribbon Cigar Co., St. Louis, Mo. Cigars. No. 114,670; May 9.

Ferguson, Walter J., New York, N. Y. Depilatories. No. 142,286; May 9.

Forbriger, Paul, doing business as Paul Forbriger & Co., New York, N. Y. Watches. No 155,055; May 9.

Frank, M., Sons & Company, Inc., New York, N. Y. Men's and young men's clothing. No. 153,134; May 9.

Funsten Brothers & Company, St. Louis, Mo. Tubes for pneumatic tires. No. 155,305; May 9.

Furman Company, San Antonio, Tex. Disinfectants, insecticide and deodorant. No. 155,399; May 9.

Gebrüder Siemens & Company, Berlin-Lichtenberg, Germany. Electrical conducting bodies. No. 136,314; May 9.

General Abrasive Co., Inc., Niagara Falls, N. Y. Corundum, emery, and silicon carbide. No. 155,224; May 9.

Gibson, William J., trading as Crystal Soda Water Works, Uniontown, Pa. Ginger ale and sirup for making the same. No. 157,420; May 9.

Gillette Rubber Co., Eau Claire, Wis. Aprons. No. 154,873; May 9.

Glasser, D. C., Tobacco Company, Dubuque, Iowa. Cigars and chewing tobacco. No. 156,788; May 9.

Goblintoy Company, Chicago, Ill. Toy air guns (for shooting air balls.) No. 158,771; May 9.

Goldberg, Isidor, Brooklyn, N. Y. Hose supporters, arm bands, garters. No. 151,944; May 9.

Grant, W. T., Co., New York, N. Y. Children's hosiery. No. 155,167; May 9.

Greanias, Tom G., Decatur, Ill. Cigars. No. 158,306; May 9.

Green Foundry & Furnace Works, Des Moines, Iowa. Furnaces for heating buildings. No. 156,488; May 9.

Gregory & Read Company, Lynn, Mass. Women's boots and shoes. No. 158,573; May 9.

Hachmann, Frederick, assignor to Bock Novelty and Manufacturing Company, St. Louis, Mo. Shoe plates for boots and shoes. No. 151,874; May 9.

Haffenreffer & Co. (See New England Brewing Company.)

Hamburger Factories Inc., Chicago, Ill. Safety razors and blades, combination tools. No. 157,424; May 9.

Harden, Harry, trading as The Famous Manufacturing Company, London, Ohio. Liquid preparation for stomach and heart troubles, acute indigestion, constipation, etc. No. 154,743; May 9.

Hart-Shaw-Miller Drug Company, Adrian, Mich. Blood purifier and cleanser and system builder. No. 157,668–9; May 9.

Harter Mfg. Company, Chicago, Ill. Electric-lamp sockets, lamp cover sockets and plugs. No. 145,264; May 9.

Hasbrouck, John E., doing business as Hasbrouck Laboratories, New York, N. Y. Preparation for removing dirt and stains from the hands, etc. No. 154,511; May 9.

Hasbrouck Laboratories. (See Hasbrouck, John E.)

Heal-O Products Co., Pittsburgh, Pa. Salve for boils, burns, etc. No. 156,277; May 9.

Heberlein & Co., A. G., Wattwil, Switzerland. Fabrics, mixed fabrics, and embroideries in the piece. No. 155,887; May 9.

Hecker-Jones-Jewell Milling Company, New York, N. Y. Prepared flour. No. 150,450; May 9.

Heidelberger Confectionery Co., Philadelphia, Pa. Candies. No. 156,689; May 9.

Henning, V. & Sons, Brooklyn, N. Y. Babbitt metals, Yellow ingot brass, composition or red brass ingot, etc. No. 158,830; May 9.

Herrgott, Leon, Paris, France. Perfumery. Nos. 138,908–9; May 9.

Hess Warming & Ventilating Company, Chicago, Ill. Medicine cabinets. No. 156,002; May 9.

Houbigant, Inc., New York, N. Y. Perfume extract and toilet water. No. 157,571; May 9.

Hudson Seal Co. Inc., New York, N. Y. Fur coats, wraps, capes, and neck pieces. No. 155,260; May 9.

Hujarvis. (See Eyben, René.)

Hurty-Peck & Co., Indianapolis, Ind. Flavoring sirups for nonalcoholic maltless beverages. No. 158,525; May 9.

Hyatt, Adda E., doing business as Hyatt and Company, Anderson, Ind. Hair invigorator and tonic. No. 158,392; May 9.

Hyatt and Company. (See Hyatt, Adda E.)

Hydrarginol Company, Kansas City, Mo. Medicine, a one per cent solution of hydrargyri iodidum rubrum in oil, used in treatment of syphilis. No. 150,533; May 9.

Ideal Bath Robe Co. Inc., Brooklyn, N. Y. Infants' bath robes. No. 133,736; May 9.

Independent Salt Company, New York, N. Y. Salt. No. 157,318; May 9.

Industrial Hosiery Mills. (See Leininger, George H.)

Industrial Paint Company, Leetsdale Borough and Fair Oaks Borough, Pa. Dry, paste, and ready-mixed paints. No. 158,981; May 9.

International Federation of Technical Engineers', Architects' and Draftsmen's Unions, Washington, D. C. Pamphlets, books, circulars, prints, drawings, etc. No. 126,803; May 9.

International Salt Co. of New York, New York, N. Y. Salt. No. 156,692; May 9.

Interstate Shade Cloth Co., Hoboken, N. Y. Shade rollers. No. 161,436; May 9.

J. Garbáty-Rosenthal, Zigarettenfabrik J. Garbáty, Berlin-Pankow. Berlin-Pankow, Germany. Cigars, cigarettes, etc. Nos. 147,915–19; May 9.

J. Garbáty-Rosenthal, Zigarettenfabrik J. Garbáty, Berlin-Pankow, Berlin-Pankow, Germany. Cigarettes. No. 147,920; May 9.

J. Garbáty-Rosenthal, Zigarettenfabrik J. Garbáty, Berlin-Pankow, Berlin-Pankow, Germany. Cigars, cigarettes, cigarillos, etc. Nos. 147,921–2; May 9.

Jaquet, Daniel, trading as Parfums Fontanis. Neuilly sur Seine, Paris, France, Toilet preparations. No. 151,989; May 9.

Jenkins Manufacturing Company, Bloomfield, N. J. Valve handles or wheels. No. 157,429; May 9.

Jennings-Sherry Company, Los Angeles, Calif. Cleansers, toilet and laundry soaps. No. 158,125; May 9.

John, Robert, New York, N. Y. Metal plates carrying photographic reproductions for use in printing. No. 158,187; May 9.

Julian & Kokenge Co., The, Cincinnati, Ohio. Shoes of leather, fabric, and combined fabric and leather. No. 142,216; May 9.

Kade's, Dr., Medizinisch-Pharmazeutisches Fabrikations- & Exportgeschaft Dr. Franz Lutze, Berlin, Germany. Pharmaceutical products especially for asthma. No. 150,755; May 9.

Kastor, Adolph & Bros., New York, N. Y. Razors and scissors. No. 159,972; May 9.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Kee Lox Manufacturing Company, Rochester, N. Y. Carbon paper. No. 153,295; May 9.
Kee Lox Manufacturing Company, Rochester, N. Y. Carbon paper. No. 153,298; May 9.
Kee Lox Manufacturing Company, Rochester, N. Y. Carbon paper and typewriter ribbons. No. 153,301; May 9.
Kee Lox Manufacturing Company, Rochester, N. Y. Carbon paper. No. 153,304; May 9.
Kennedy Valve Mfg. Co., The, Elmira, N. Y. Fire hydrants, indicator posts, gates, and check valves, etc. No. 156,087; May 9.
Klatscher & Lorenz, Inc., New York, N. Y. Body sugar for beer coloring and flavoring. No. 134,960; May 9.
Kohnstamm, H., & Co., New York, N. Y. Soap. No. 157,929; May 9.
Kunkel & Kunkel, Madrid, Nebr. Veterinary oil liniment for the treatment of open sores. No. 134,475; May 9.
Lacrosse Rubber Mills Co., La Crosse, Wis. Rubber boots and shoes. No. 154,655; May 9.
Laird Manufacturing Co. Inc., The, Richmond, Va. Baking powder. No. 157,578; May 9.
Lamy, J. A., Mfg. Co., Sedalia, Mo. Overalls, jackets, and vests', combination suits, work shirts, etc. No. 153,045; May 9.
Larkin, Thomas W., & Co., doing business as Mystery Drink Company, Streator, Ill. Nonalcoholic, noncereal, maltless beverage. No. 143,930; May 9.
La Societe des Produits, Chimiques Coignet, Paris, France. Phosphorous. No. 157,323; May 9.
Leininger, George H., doing business as Industrial Hosiery Mills, Mohnton, Pa. Hosiery. No. 154,371; May 9.
Liberty Home Beverage Company. (See Macauley, John.)
Life Saver Soap Works of America, Chicago, Ill. Toilet soap. No. 153,306; May 9.
Loesch, Ellsworth, doing business as Bowelax Co., Cleveland, Ohio. Laxative tablets. No. 157,227; May 9.
Ludlow, James B., Philadelphia, Pa. Parlor board game. No. 155,101; May 9.
Ludwig Hupfeld Aktiengesellschaft, Bohlitz-Ehrenberg, Germany. Piano players, player pianos, grand and upright pianos, etc. No. 143,377; May 9.
Lustrex Products Co., Oradell, N. J. Furniture polish. No. 158,133; May 9.
Lyon, Julian W., & Co., New York, N. Y. Thymol, menthol, chlorophyl, essential oils, suitable for production of perfumes, etc. No. 157,321; May 9.
McMichael, Americus O., Denver, Colo. Gland mixtures and preparations for treatment of high blood pressure, etc. No. 155,064; May 9.
Macauley, John, doing business as Liberty Home Beverage Company, Detroit, Mich. Malt-extract sirup. No. 151,326; May 9.
Macy, R. H., and Co., Inc., New York, N. Y. Lotions. No. 157,496; May 9.
Manhattan Rubber Mfg. Co., The, Passaic, N. J. Rubber soles and heels. No. 159,168; May 9.
Mantsion, Frank X., Philadelphia, Pa. Medicinal preparations for the treatment of constipation, rheumatism, etc. No. 157,722; May 9.
Mariott, John E., Latrobe, Pa. Medicines for medicinal treatment of sore gums, toothache, etc. No. 155,414; May 9.
Martorelli, Raffaele, New York, N. Y. Olive oil. No. 152,269; May 9.
Marvel Battery Co. Inc., St. Paul, Minn. Electric batteries. No. 158,324; May 9.
Mar-Vello Remedies Co., Tiffin, Ohio. Antifat medicines. No. 140,627; May 9.
Mason Packing Company, Pittsburgh, Pa. Fluid tight packing. No. 155,413; May 9.
Masterman, John H., Baltimore, Md. Cigars. No. 153,516; May 9.
Matson, Charles H., doing business as C. H. Matson & Co., Jersey City, N. J. Preparation for external application in the treatment of rheumatism, neuralgia, etc. No. 154,233; May 9.
Medicraft Company, The, Cleveland, Ohio. Soap. No. 154,373; May 9.
Middleby, Jos., Jr. Inc., Boston, Mass. Nonalcoholic maltless beverages and sirups therefor. No. 156,748; May 9.
Moline Pressed Steel Co., East Moline, Ill. Toy motor trucks, steam shovels, and derricks. No. 156,167; May 9.
Monk, George B., San Francisco, Calif. Magazine published at varying intervals. No. 156,695; May 9.
Moon Chuckle Products Co. (See Ashcroft, Moses.)
Morton Sundour Fabrics Ltd., Dentonhill, Carlisle, England. Cotton piece goods. No. 156,696; May 9.
Mucine Products Company, Chicago, Ill. Embrocations known as spinal massage creams. No. 147,673; May 9.
Muller and Phipps (Asia) Limited, New York, N. Y. Hairpins and safety pins. No. 134,138; May 9.
Murry, George E., Pequet, Pa. Liniment for open wounds, running sores, etc. No. 154,232; May 9.
Myall, William, Tottenham, London, England. Boots, shoes, and leggings made of leather. No. 148,230; May 9.
Mystery Drink Company. (See Larkin, Thomas W., & Co.)
National Game Company, The, Toledo, Ohio. Parlor baseball. No. 156,293; May 9.
National Laboratories. (See Abshear, Charles D.)
National Poultry Institute, Inc., The, Baltimore, Md., and Washington, D. C. Lesson books, and catalogues issued semiannually. No. 154,319; May 9.
National Stamping & Electric Works, Chicago, Ill. Electric smoothing irons, grills, toasters, fans, stoves, etc. No. 158,248; May 9.
Nehring, A., & Sons Co., Chicago, Ill. Cleaning compound. No. 155,110; May 9.
Neptune Meter Company, New York, N. Y. Relief valves. No. 160,771; May 9.
Newell Mfg. Co. Inc., The, Ogdensburg, N. Y. Curtain rods. No. 160,773; May 9.
New England Brewing Company, doing business as Haffenreffer & Co., Jersey City, N. J., and Boston, Mass. Concentrated material brewed from malt and hops suitable for the making of a malt beverage. No. 154,614; May 9.
Nu-Life Company, Cuyahoga Falls, Ohio. General tonic for poultry, pigeons, and turkeys. No. 152,089; May 9.
Off'N'On Chain Corporation, New York, N. Y. Automobile tire chains. No. 159,282; May 9.
Oliver, Charles C., doing business as Oliver-Eaton Co., Montclair, N. J. Toilet preparations. No. 154,283; May 9.
Oliver-Eaton Co. (See Oliver, Charles C.)
Oliver Sherwood Co., San Francisco, Calif. Composition of matter essentially of rubber. No. 158,690; May 9.
Omaha Flour Mills Co., Omaha, Nebr. Wheat flour. No. 154,886; May 9.
Ovington Bros. Company, New York, N. Y. Cleaning and polishing materials for jewelry, metal ware, and precious-metal ware. No. 142,405; May 9.
Ovington Bros. Company, New York, N. Y. Tables, chairs for household use, stands, desks, tea wagons, stools, etc. No. 142,399; May 9.
Palleyesch, Barney L., doing business as Pals Chemical Company, Brooklyn, N. Y. Liquid preparation for treating and relieving pain to the gums. No. 155,417; May 9.
Palmer Photoplay Corporation, Los Angeles, Calif. Books, pamphlets, and circulars devoted to photoplay information, etc. No. 133,490; May 9.
Pals Chemical Company. (See Palleyesch, Barney L.)
Papazian, Alexander, New York, N. Y. Soaps. No. 158,141; May 9.
Pappanicolaou, George, Washington, D. C., and New York, N. Y. Cigarettes. No. 157,731; May 9.
Parfums Fontanis. (See Jaquet, Daniel.)
Park Laboratory Company, San Antonio, Tex. Salve for use in treatment of colds, coughs, influenza, burns, etc. No. 142,268; May 9.
Parker Brothers, Salem, Mass. Card games. No. 157,232; May 9.
Parkway Bottling Co. Inc., Philadelphia, Pa. Nonalcoholic, maltless beverage sold as a soft drink. No. 158,092; May 9.
Passaic Print Works, Passaic, N. J. Cotton piece goods. No. 156,406; May 9.
Passaic Print Works, Passaic, N. J. Cotton piece goods. No. 156,409; May 9.
Patten Manufacturing Company, Chattanooga, Tenn. Spark plugs. No. 156,749; May 9.
Peerless Light Company, Chicago, Ill. Electric-lighting sets for Christmas trees. No. 156,853; May 9.
Peninsula Products Company, Wilmington, Del. Ginger ale. No. 137,268; May 9.
Penn Leather Preserving Co., Pittsburgh, Pa. Compound for preserving and waterproofing shoes and leather. No. 158,947; May 9.
Pepsodent Company, The, Chicago, Ill. Dentifrices. No. 157,532; May 9.
Pepsol Company. (See Blackman, John J.)
Philadelphia Quartz Company, Philadelphia, Pa. Series of pamphlets, booklets, or leaflets. No. 155,633; May 9.
Phytamin Corporation, The, Wilmington, Del., and New York, N. Y. Medicinal food product comprising vitamins, etc. Nos. 157,171–2; May 9.
Powers Paper Company, Springfield, Mass. Writing and printing paper, writing tablets, papeteries, etc. No. 157,953; May 9.
Press, I., & Sons, Philadelphia, Pa. Watches. No. 145,229; May 9.
Purabrand Products Co., The, Pleasant Hill, Ohio. Medicine for the treatment of biliousness, headache, etc. No. 156,463; May 9.
R. B. Clothing Company, Inc., The, Cincinnati, Ohio. Men's clothing for outer wear. No. 155,032; May 9.
Raisin Products Co. of America, The, New York, N. Y. Tablets for the treatment of anæmia, malnutrition, etc. Nos. 157,732–3; May 9.
Rand McNally and Company, Chicago, Ill. Maps, atlases, miscellaneous books, magazines, etc. No. 149,246; May 9.
Re-Nu-M Manufacturing Co., St. Louis, Mo. Belt dressing. No. 157,691; May 9.
Reeder, D. G., doing business as Reeder Manufacturing Company, Atlanta, Ga. Antiseptic deodorant powder. No. 154,663; May 9.
Reeder Manufacturing Company. (See Reeder, D. G.)
Reliable Household Specialties Manufacturing Company. (See Bernstein, Samuel.)

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Reliance Manufacturing Company, Chicago, Ill. Work shirts. No. 153,952; May 9.
Reynolds, Arthur T., Brooklyn, N. Y. Mattresses. No. 143,293; May 9.
Rice, Richard H., Coconut Grove, Fla. Fresh oranges, grapefruit, and tangerines. No. 154,326; May 9.
Rice-Stix Dry Goods Company, St. Louis, Mo. Hosiery. No. 154,662; May 9.
Rich & France, Chicago, Ill. Brooms. No. 145,287; May 9.
Richardson, A. J., Crafton Borough, Pa. Preparation for the removal of superfluous hair. No. 153,693; May 9.
Ringler, George, & Co., New York, N. Y. Nonintoxicating maltless beverage. No. 128,943; May 9.
Rolly Chemical Co., Hastings, Nebr. Chemical dirt solvent in the nature of a washing powder. No. 158,148; May 9.
Rosenau Bros., Inc., Philadelphia, Pa. Children's dresses, rompers, creepers, and suits. No. 152,653; May 9.
Rosenberg Bros. & Co., Rochester, N. Y. Men's coats, vests, and pants. No. 155,322; May 9.
Rossano, G., & Bros., New York, N. Y. Olive oil. No. 154,531; May 9.
Rossville Company, The, Laurenceburg, Ind. Liniment—that is, an alcoholic rub. No. 150,409; May 9.
Rubber Process Corporation, Detroit, Mich. Rubber preservative. No. 157,588; May 9.
Saltzman, Maurice, New York, N. Y. Ladies' hats. No. 154,934; May 9.
Sanozone Chemical Co., Philadelphia, Pa. Roach powder and scale solvent. No. 140,807; May 9.
Say Drug Products Co. (See Branower, George I.)
Scheinzeit-Goldman Co., New York, N. Y. Underwear for women of knit and woven fabric. No. 154,619; May 9.
Schirmer, Russell A., doing business as R. A. Schirmer & Company, Cincinnati, Ohio. Face and talcum powders, rouge, face cream, etc. No. 152,040; May 9.
Scruton, Fred M., doing business as Vi-to-tab Company, Lewiston, Me. Medicinal preparation used as a blood purifier and flesh and nerve builder. No. 157,453; May 9.
Schwartz, Jacob, New York, N. Y. Musical-instruments, strings, violins, violas, cellos, etc. No. 158,405; May 9.
Seven Spas Soap Proprietary Coy., Limited, London, England. Antirheumatic medicated soap. No. 149,153; May 9.
Shade-O Co. (See Walsh, John S.)
Shapleigh Hardware Company, St. Louis, Mo. Catalogue published from time to time. No. 157,048; May 9.
Simplex Automobile Company, Inc., New York, N. Y. Automobiles. No. 128,283; May 9.
Smith's, Dr., Stock-Vigor Remedies Company, Atlanta, Ga. Stock vigor tonic and laxative, poultry tonic, etc. No. 157,283; May 9.
Solveno Chemical Co., Wilmington, Del. Carbon remover of a chemical nature. No. 152,041; May 9.
Southern Olive Oil Co., Inc., New York, N. Y. Olive oil. No. 156,932; May 9.
Srofe, Jesse, trading as J. Srofe Company, Cincinnati, Ohio. Toy blocks. No. 144,204; May 9.
Stanke, William C., Hoboken, N. J. Toy gunboat on wheels. No. 143,795; May 9.
Star Suspender Co., Philadelphia, Pa. Garters. No. 156,035; May 9.
Stuart, C. A., Kansas City, Mo. Liquid massage preparation used as a substitute for alcohol in rubbing or massaging operations, also a preparation for a hair tonic and skin lotion. No. 138,928; May 9.
Tannenbaum, Isidore, New York, N. Y. Ladies' trimmed and untrimmed hats and hat frames. No. 148,025; May 9.
Taylor and Atkinson, Washington, D. C. Soap. No. 124,556; May 9.
Teddy Multiplication Game Company, The, Cleveland, Ohio. Arithmetical card game. No. 157,859; May 9.
Town Talk Manufacturing Co., Louisville, Ky. Men's and boys' caps. No. 154,393; May 9.
Tropical Fruit Juice Company, Chicago, Ill. Nonalcoholic maltless beverages and sirups for making same. No. 153,058; May 9.
Tuttle, Orley C., Old Forge, N. Y. Artificial bait. No. 158,954; May 9.
Universal Shoe Plate Company, The, Cleveland, Ohio. Shoe plates. No. 156,034; May 9.
Val Blatz Brewing Company, Milwaukee, Wis. Nonalcoholic near beer, beer, malt tonic, sirup, and extract, etc. No. 142,321; May 9.
Valentine & Company, New York, N. Y. Varnishes, varnish stains, paint enamels, ready-mixed and paste paints. No. 158,658; May 9.
Vernor, James Company, Detroit, Mich. Ginger ale and ginger-ale extract. No. 158,023; May 9.
Vi-to-tab Company. (See Scruton, Fred M.)
Vivaudou, V., Inc., New York, N. Y. Powder puffs, face brushes, etc. No. 158,959; May 9.
Vivaudou, V., Inc., New York, N. Y. Soaps, shaving creams, powders, and sticks. No. 157,782; May 9.
Vollmer, Roger H., trading as Eatabita Cheese Company, Phoenixville, Pa. Cheese. No. 155,374; May 9.
Wallbaum, Goulden & Co., Reims, France. Champagne wines. No. 154,342; May 9.
Walker, W. & H., Inc., Pittsburgh, Pa. Soap. No. 159,133; May 9.
Walsh, John, doing business as Shade-O Co., Beverly Farms, Mass. Waterproof paint for coating glass. No. 158,960; May 9.
Ward Baking Company, New York, N. Y. Bread. No. 153,630; May 9.
Way-Lite Reflector Company, The, Cleveland, Ohio. Reflector for preventing glare for electric headlights. No. 158,347; May 9.
Weil, Jos., & Sons, Inc., Chicago, Ill. Toilet paper. No. 159,738; May 9.
Weiss, Herman Co., The, Cincinnati, Ohio. Dresses for ladies and girls. No. 154,676; May 9.
Wenglein's, H. J., Norica- & Herold-Werke Nurnberg-Schwabacher Nadelfabriken G. m. b. H., Nuremberg, Germany. Gramophone needles. No. 138,182; May 9.
Wentworth Clothing Company, Spokane, Wash. Men's, young men's, and boys' haberdashery. No. 152,153; May 9.
Westinghouse Lamp Company, Bloomfield, N. J. Incandescent electric lamps. No. 144,493; May 9.
Whip-O-Top Company, The, New Britain, Conn. Tops. No. 158,739; May 9.
White-Dove Laboratories, New York, N. Y. Olive-oil shampoo. No. 155,287; May 9.
Whitfield, Madam D. W. (See Whitfield, Mary L.)
Whitfield, Mary L., trading as Madam D. W. Whitfield, Americus, Ga. Preparation for the scalp used as a tonic and for promoting the growth of hair. No. 152,293; May 9.
Whitman, Ralph M., New Bedford, Mass. Garters. No. 154,542; May 9.
Wigwam Retail Stores Company, The, Columbia, S. C. Cigars, cigarettes, cheroots, snuff, and smoking tobacco. No. 154,948; May 9.
Williams & Frederick Inc., New York, N. Y. Toilet preparations. No. 157,290; May 9.
Willson, Edith E., Washington, D. C. Miniature table, bed, and toilet articles for children's dolls. No. 137,900; May 9.
Wilson, Douglas S., Midville, Ga. Preparation for treatment of bots, colic, distemper, etc., for horses and mules. No. 156,509; May 9.
Wireless Specialty Apparatus Company, New York, N. Y., and Boston, Mass. Electrical condensers. No. 158,693; May 9.
Witmark, M., & Sons, New York, N. Y. Sheet music. No. 156,871; May 9.
Witmer, D. L., & Bro. (See Edwardsen, Cris A.)
Woman's Mutual Benefit Company, The, Joliet, Ill. Vaginal suppositories, antiseptic ointments, general tonics, etc. No. 154,856; May 9.
Wood, R. D., & Co. (See Wood, Walter.)
Wood, Walter, trading as R. D. Wood & Co. Fire hydrants. No. 156,769; May 9.
Woolley, Daniel P., New York, N. Y. Bread. No. 153,277; May 9.
Wooster Brush Company, The, Wooster, Ohio. Brushes. No. 146,605; May 9.
Wright, Commodore C., McLeansboro, Ill. Dressed poultry and eggs. No. 155,466; May 9.

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED ON THE 9TH DAY OF MAY, 1922.

NOTE.—Arranged in accordance with the first significant character or word of the name. (In accordance with city and telephone directory practice.)

Abrading device. C. S. Gustafson. No. 1,415,171; May 9.
Account registers, Leaf-hinge device for. A. S. Weldy. No. 1,415,212; May 9.
Acid, Manufacture of arsenic. C. Ellis and V. T. Stewart. No. 1,415,323; May 9.
Acid manufacture, Sulphuric-. G. F. Hurt. No. 1,415,353; May 9.
Acid, Method of and apparatus for concentrating. I. Hechenbleikner and T. C. Oliver. No. 1,415,443; May 9.
Adding machine. A. A. Horton. No. 1,415,174; May 9.
Advertising device. V. P. McKinnie. No. 1,415,596; May 9.
Aeroplane attachment. P. S. Woods. No. 1,415,754; May 9.
Aeroplane control. J. T. Hughes. No. 1,415,176; May 9.
Aeroplanes. Launching mechanism for. E. A. Sperry. No. 1,415,847; May 9.
Agitator. M. M. Fredel and W. Bosanko. No. 1,415,830; May 9.
Agricultural implement. C. H. Pelton. No. 1,415,111; May 9.
Air-brake attachment. A. P. Sale. No. 1,415,405; May 9.
Air-brake-releasing mechanism, Automatic. D. C. Hessian. No. 1,415,173; May 9.
Air-brake switch, High-voltage. R. Renke. No. 1,415,708; May 9.
Airplane. W. K. Rider. No. 1,415,052; May 9.
Alarm: *See*—
Automatic alarm.
Albumins from blood. Manufacture of decolorized, odorless, and tasteless. A. J. L. Terwen and C. J. C. van Hoogenhuyze. No. 1,415,277; May 9.
Alginate composition and article. B. F. Erdahl. No. 1,415,850; May 9.
Alkaline brines and deposits. Recovering valuable constituents from. E. P. Stevenson. No. 1,415,206; May 9.
Alloy, Making and using metal scavenging. H. G. C. Thofehrn. No. 1,415,733; May 9.
Aluminum nitride and other chemical substances, Apparatus for making. W. Hoopes. No. 1,415,446; May 9.
Aluminum sulphate, Decomposition of. H. M. Burkey and H. M. Schleicher. No. 1,415,308; May 9.
Amplifier. J. W. Milnor. No. 1,415,382; May 9.
Animal trap. G. F. Corle. No. 1,415,801; May 9.
Animal trap, Self-set. R. E. Bounds and P. S. Dumbolton. No. 1,415,301; May 9.
Annealing furnace or leer. W. O. Amsler. No. 1,415,622; May 9.
Antimony sulphide and making same, Precipitated. A. L. Stark. No. 1,415,127; May 9.
Antiskid attachment. F. T. Vergin. No. 1,415,738; May 9.
Antiskidding device. A. R. Andersen. No. 1,415,289; May 9.
Arc-current regulator. J. A. Holifield. No. 1,415,565; May 9.
Arc-welding system. A. M. Bennett, W. B. Elliott, and W. O'Blenis. No. 1,415,012; May 9.
Ash collecting and dumping machine. W. Eiermann. No. 1,415,024; May 9.
Auto plate and crank holder. G. McGarry. No. 1,415,594; May 9.
Automatic alarm. J. Swanberg. No. 1,415,207; May 9.
Automatic-release coupling. G. W. Howden. No. 1,415,646; May 9.
Automobile bed, Folding. C. C. Starr. No. 1,415,727; May 9.
Automobile bodies and other structures, Jig for electrically welding the parts of. J. Ledwinka. No. 1,415,588; May 9.
Automobile headlamp. W. F. Little. No. 1,415,373; May 9.
Automobile rim. T. and A. Mohn. No. 1,415,675; May 9.
Automobile sled. W. S. Fraser. No. 1,415,165; May 9.
Automobile tail light and State-license-plate holder, Combined. L. A. Ragan. No. 1,415,116; May 9.
Automobile wheels, Rim for. R. Rossbach. No. 1,415,402; May 9.
Automobiles. Bonnet corner pad for. J. A. Gurke. No. 1,415,632; May 9.
Automobiles. Safety fender for. T. F. Buck. Nos. 1,415,518–9; May 9.
Automobiles, Side curtain for. R. J. Gruenberg. No. 1,415,441; May 9.
Automobiles, Signal light for. O. I. Nigh. No. 1,415,465; May 9.
Automobiles, Thief alarm for. C. L. Wright. No. 1,415,081; May 9.
Automobiles, Wheel shoe for. F. Hibner. No. 1,415,444; May 9.
Bag: *See*—
Hand bag.
Bag. F. L. Johnson. No. 1,415,450; May 9.
Bait, Artificial. F. L. Koepke. No. 1,415,653; May 9.
Ballot protector. L. A. Crowley. No. 1,415,020; May 9.
Balls and like hollow articles, Making tennis. W. A. Gibbons. No. 1,415,437; May 9.
Balls, Covering tennis. W. A. Gibbons. No. 1,415,438; May 9.
Band-saw guide. W. W. Paddock. No. 1,415,386; May 9.
Bathtubs, Shower or spraying attachment for. W. C. Booth. No. 1,415,014; May 9.
Batteries, Treating separators for storage. H. W. Nordyke. No. 1,415,683; May 9.
Batteries, Water-replenishing device for storage. G. H. Hickman. No. 1,415,559; May 9.
Battery: *See*—
Storage battery.
Battery. O. P. Fritchle. No. 1,415,541; May 9.
Battery. F. Garaca. No. 1,415,832; May 9.
Battery. H. T. Hipwell. No. 1,415,033; May 9.
Battery-connecter mold. A. H. Gebhardt. No. 1,415,027; May 9.
Bead-making machine. W. E. Horrocks. No. 1,415,566; May 9.
Bearing. W. W. Bowman. No. 1,415,142; May 9.
Bearing, Roller. E. A. Perkins. No. 1,415,694; May 9.
Bearings, Ball or roller cage for antifriction ball or roller thrust. E. H. W. Weibull. No. 1,415,420; May 9.
Bearings external of a hollow member, Lubricating means for. C. G. Pullin. No. 1,415,115; May 9.
Bed. J. H. Wittmann. No. 1,415,135; May 9.
Bed bottoms, Side thrust support for spring-. S. Weissman and R. Weisman. No. 1,415,068; May 9.
Belt cutter. I. M. Jacobs and W. Cramer. No. 1,415,355; May 9.
Belt shifter. R. Spurgin, Jr. No. 1,415,271; May 9.
Beverages, Method and means for dispensing carbonated. P. J. Maguire. No. 1,415,185; May 9.
Bin: *See*—
Grain bin.
Binder, Loose-leaf. L. E. Goodyear. No. 1,415,834; May 9.
Bit: *See*—
Drilling bit. Expansible bit.
Bit for wood, Expansion counterboring. W. F. Wall. No. 1,415,740; May 9.
Block: *See*—
Concrete block.
Blotter holder, Flexed-. N. S. Hillyard. No. 1,415,642; May 9.
Board-pulling tool. J. M. Pederson. No. 1,415,693; May 9.
Bodies, and making the same, Charge or block for use in practising processes involving chemical reactions, more particularly reactions between solid and gaseous. W. Hoopes. No. 1,415,036; May 9.
Bolt. M. K. Sessler. No. 1,415,487; May 9.
Bolting-up device. J. Stanmore and D. Kennedy. No. 1,415,726; May 9.
Bookmark. A. Grimm. No. 1,415,631; May 9.
Bookrack, Extensible. J. A. Krivacs. No. 1,415,582; May 9.
Boots and shoes and stiffeners therefor, Manufacture of. D. B. Macdonald. No. 1,415,378; May 9.
Borax from saline deposits and brines, Extracting. E. P. Stevenson. No. 1,415,205; May 9.
Boring tool, Expansible. J. Little. No. 1,415,590; May 9.
Borneol, Manufacture of. A. Haller. No. 1,415,340; May 9.
Bottle-cap machine. O. F. Baltzley. No. 1,415,507; May 9.
Bottle, Nonrefillable. W. P. Walsh. No. 1,415,741; May 9.
Box: *See*—
Driving box. Journal box.

Box and crate. T. V. Thomall. No. 1,415,064; May 9.
Box joint. B. A. Lange. No. 1,415,368; May 9.
Bracelet, Ribbon. R. King. No. 1,415,366; May 9.
Bracket: *See*—
Garment-hanger bracket.
Brake: *See*—
Car brake.
Brassière. W. Kops. No. 1,415,655; May 9.
Break-beam fulcrum and making the same. C. E. Bauer. No. 1,415,009; May 9.
Bridges, etc., Planking for. O. E. Bray. No. 1,415,304; May 9.
Brush. H. J. Kirkpatrick. No. 1,415,652; May 9.
Brushes, Making. A. W. Lamp. No. 1,415,657; May 9.
Bucket-door-opening mechanism. F. E. Arndt. No. 1,415,291; May 9.
Bucket, Grab. J. P. Dowd. No. 1,415,812; May 9.
Buckle. J. F. Carpmill and G. W. Troop. No. 1,415,017; May 9.
Bug exterminator. W. A. Johnson. No. 1,415,358; May 9.
Bug exterminator. Potato. W. A. Johnson. No. 1,415,359; May 9.
Burner: *See*—
Gas burner. Vapor burner.
Hydrocarbon burner. Weed and insect burner.
Burner. M. A. Fesler. No. 1,415,434; May 9.
Cabinet, Directory. S. A. D. Puter and A. F. Eltscher. No. 1,415,703; May 9.
Cabinet, Filing. A. R. Bullock. No. 1,415,307; May 9.
Cable fastener. A. W. Perlitz. No. 1,415,112; May 9.
Cables, Device for connecting loads to elevating. B. F. Fitch. No. 1,415,090; May 9.
Cake and cracker conveyer, Pan-dumping apparatus for. P. Rasmussen. No. 1,415,392; May 9.
Calculating machine. A. N. Smith. No. 1,415,125; May 9.
Calculating machine. F. A. Belt. No. 1,415,297; May 9.
Calendar. L. Oppenheim. No. 1,415,686; May 9.
Camera. J. S. Bishop. No. 1,415,514; May 9.
Can opener. C. E. Morgan. No. 1,415,676; May 9.
Can-polishing machine. A. Nelsen. No. 1,415,258; May 9.
Car brake. J. Taylor. No. 1,415,730; May 9.
Car couplings, Centering device for. W. P. Murphy. No. 1,415,463; May 9.
Car door and brake controlling device. C. C. Farmer. No. 1,415,821; May 9.
Car door, Grain-. A. C. Watson. No. 1,415,746; May 9.
Car door, Railway. W. Salmon. No. 1,415,484; May 9.
Car, Dumping. A. Kassler. No. 1,415,097; May 9.
Car member, Sheet-metal. E. I. Dodds. No. 1,415,022; May 9.
Car, Pivoted-bunk logging. H. C. Jarvis. No. 1,415,357; May 9.
Car step. C. E. Porter. No. 1,415,699; May 9.
Carburetor for internal-combustion engines. W. H. Anderson. No. 1,415,423; May 9.
Card cutting and stacking machine. I. Wagemaker. No. 1,415,210; May 9.
Card holder. H. W. Fesser. No. 1,415,540; May 9.
Card holder. E. Terner. No. 1,415,276; May 9.
Carrier: *See*—
Freight carrier. Overhead carrier.
Carton. J. J. Gannon. No. 1,415,543; May 9.
Cartons or boxes, Device for filling. B. K. Wilbur. No. 1,415,075; May 9.
Case-hardening articles. G. C. Nixon and F. C. Raab. No. 1,415,261; May 9.
Casting apparatus. H. Hermanns. No. 1,415,348; May 9.
Casting clay articles, Mold for. R. W. White. No. 1,415,213; May 9.
Ceiling construction. C. W. Stevens. No. 1,415,273; May 9.
Cellulose ethers, Making. J. M. Donohue. No. 1,415,023; May 9.
Centrifugal casting machine. W. F. Wolf. No. 1,415,421; May 9.
Chain hook, Antiskid-. A. E. Forseth. No. 1,415,328; May 9.
Chain wrench, Flexible. W. L. Bessolo. No. 1,415,772; May 9.
Chains, Belt loop for. E. S. Smith. No. 1,415,490; May 9.
Chair: *See*—
Concrete beam chair. Convertible chair.
Chaser-adjusting tool. T. H. Lloyd. No. 1,415,182; May 9.
Chasing machine. J. C. Wahl. No. 1,415,211; May 9.
Check, Drop-cover. G. E. Rudnick. (Reissue.) No. 15,350; May 9.
Chime-striking action. L. D. Morris. No. 1,415,256; May 9.
Chimney-flue liner. F. Seifert. No. 1,415,199; May 9.
Chuck, Bipolar magnetic. F. L. Simmons. No. 1,415,723; May 9.
Chuck, Drill. F. C. Shore. No. 1,415,720; May 9.
Chuck for tool-operating machines. D. C. Robinson. No. 1,415,119; May 9.
Churn. M. D. Gibson. No. 1,415,334; May 9.
Chute-opening mechanism, Power-driven. S. Shafer, Jr. No. 1,415,411; May 9.
Chutes, Operating mechanism for. S. Shafer, Jr. No. 1,415,410; May 9.
Cigar-box-lid holder. F. D. Pelot. No. 1,415,388; May 9.
Cigarette or cigar holder. W. Rumble, Jr. No. 1,415,404; May 9.
Cinematograph film, Delivering and winding. E. J. Way. No. 1,415,131; May 9.
Cinematograph projecting apparatus, Safety device for. F. Stein. No. 1,415,494; May 9.
Ciphering device. L. F. Morehouse. No. 1,415,106; May 9.
Clam-dredging machine. T. H. Phillips, Jr. No. 1,415,113; May 9.
Clamp: *See*—
Rail clamp.
Cleaning device. G. B. Pickop. No. 1,415,467; May 9.
Clasp: *See*—
Safety clasp.
Cleaner: *See*—
Vacuum cleaner.
Cleansing compound. W. C. Newbury. No. 1,415,605; May 9.
Clip: *See*—
Film clip.
Clock. J. F. Dunn. (Reissue.) No. 15,348; May 9.
Clock frame. W. F. Hanson. No. 1,415,636; May 9.
Closet: *See*—
Sanitary closet.
Closet seat. E. G. Watrous. No. 1,415,130; May 9.
Clutch, Disk. C. G. Seitz. No. 1,415,841; May 9.
Clutch mechanism. L. E. Conner. No. 1,415,150; May 9.
Coal, Plant for and method of treating. C. H. Smith. No. 1,415,202; May 9.
Coat and hat holder, Combined. C. W. Stahle. No. 1,415,126; May 9.
Coating composition. M. J. Walsh. No. 1,415,282; May 9.
Coin-deposit receptacle. C. Gibbs. No. 1,415,168; May 9.
Color from caustic alkali, Eliminating. T. C. Meadows and H. D. Ruhm. No. 1,415,186; May 9.
Comb. S. E. Monroe. No. 1,415,188; May 9.
Compressor unit, Portable. F. W. Parsons. No. 1,415,047; May 9.
Concrete beam chair. W. E. White. No. 1,415,074; May 9.
Concrete block, Hollow. A. M. Cramer. No. 1,415,222; May 9.
Concrete resistant to waters charged with soluble compounds and product thereof, Rendering. B. F. Erdahl. No. 1,415,324; May 9.
Concrete-tile construction. S. M. Sampson. No. 1,415,197; May 9.
Contact finger and making same. T. E. Drohan. No. 1,415,320; May 9.
Container applicator. R. Slee. No. 1,415,413; May 9.
Control mechanism. E. H. Sherbondy. No. 1,415,200; May 9.
Convertible chair. B. C. Bartlebaugh. No. 1,415,767; May 9.
Conveyer. M. H. Pade. No. 1,415,688; May 9.
Cooker, Fireless. J. H. Reichart. No. 1,415,049; May 9.
Cooking or heating vessel, Electric. C. H. Luath. No. 1,415,456; May 9.
Coop, Chicken. J. E. Risty. No. 1,415,397; May 9.
Coppers, Heater for soldering. C. H. Klein. No. 1,415,098; May 9.
Corset. A. Zwiebelson. No. 1,415,757; May 9.
Coupling: *See*—
Automatic-release coupling. Pipe coupling.
Cover construction. Detachable. E. L. Condon. No. 1,415,148; May 9.
Crane, Overhead traveling. L. Ennis and A. Jack. No. 1,415,163; May 9.
Crusher roll. B. C. Osler. No. 1,415,608; May 9.
Cultivating implement. J. A. Allen. No. 1,415,759; May 9.
Cultivator. J. F. Harden. Nos. 1,415,637–8; May 9.
Cultivator-tooth fastening. E. B. McCartney. No. 1,415,102; May 9.
Cup: *See*—
Priming cup.
Current transformer. D. J. Angus. No. 1,415,505; May 9.
Curtain fastener. J. Vodicka. No. 1,415,129; May 9.
Cutter: *See*—
Belt cutter. Shingle cutter.
Milling cutter.
Cutting tool and holder. A. Guttly. No. 1,415,237; May 9.
Damper, Fireplace. H. N. Cain. No. 1,415,522; May 9.
Dehairing machine, Carcass-. L. A. Kramer. No. 1,415,580; May 9.
Dental floss holder. T. A. Bailey. No. 1,415,765; May 9.
Diamond grinder. F. Ries. No. 1,415,118; May 9.
Diaphragm attachment. J. E. Jones. No. 1,415,360; May 9.
Die press. F. Coates. No. 1,415,018; May 9.
Dies for punching small metal parts. V. Puc. No. 1,415,477; May 9.
Dimethylxanthine, Manufacture of 1-allyl-3.7-. E. Preiswerk. No. 1,415,700; May 9.
Directionometer. A. W. Coleman. No. 1,415,147; May 9.
Dispenser. E. Bruder. No. 1,415,218; May 9.
Display stand. H. P. Brace. No. 1,415,782; May 9.
Display stand. W. C. Dickmeyer. No. 1,415,224; May 9.
Display stand for ribbons and the like. J. G. Johnston, Jr. No. 1,415,242; May 9.
Disruptive conduction, Apparatus for treating articles by. F. S. Smith. (Reissue.) No. 15,351; May 9.
Doll, Mechanical. S. Haskell. No. 1,415,344; May 9.
Door. C. W. Ealy. No. 1,415,815; May 9.

Door check. W. G. Discher. No. 1,415,225; May 9.
Door check and buffer, Combined. D. H. Strayer. No. 1,415,493; May 9.
Door lock and latch, Combined. F. Meyer. No. 1,415,104; May 9.
Drafting instrument. D. Grieve. No. 1,415,547; May 9.
Drafting machines. Pantographic apparatus for attaching to universal. W. A. Perkins. No. 1,415,695; May 9.
Drawn pipe and stretching same. G. Tanomura. No 1,415,415; May 9.
Drill: *See*—
Hoe drill.
Drill presses, Screw-driver chuck for. M. Oro. No. 1,415,687; May 9.
Drilling bit. E. J. Akins. No. 1,415,619; May 9.
Drink-mixing machine. W. M. Murphy. No. 1,415,679; May 9.
Driving box, Connected. J. C. Waldron. No. 1,415,419; May 9.
Drying goods. W. Atkinson. No. 1,415,623; May 9.
Drying materials, Apparatus for. H. H. Dow. No. 1,415,160; May 9.
Dumping device and process. M. O. Henderson. No. 1,415,640; May 9.
Dust separator. W. J. Baldwin. No. 1,415,294; May 9.
Dye, Production of disazo. W. M. Ralph and L. H. Flett. No. 1,415,704; May 9.
Dyeing material, Apparatus for and method of. L. K. Biach. No. 1,415,513; May 9
Dynamos, Suspension for train-lighting. F. G. Beetem. No. 1,415,083; May 9.
Edging machines, Roll guard for. G. W. Dorman. No. 1,415,810; May 9.
Elastic-fluid-operated ejector. A. E. L. Scanes. No. 1,415,406; May 9.
Electric contact. J. B. Chemidlin. No. 1,415,795; May 9.
Electric-current making, breaking, and reversing device. J. H. Lehman. No. 1,415,369; May 9.
Electric generators, Automatic cut-out for. E. J. Tomlinson. No. 1,415,497; May 9.
Electric heater. C. M. Bosworth and A. G. Boesel. No. 1,415,015; May 9.
Electric heater. R. G. Ledig. No. 1,415,660; May 9.
Electric heating apparatus. W. S. Hadaway, Jr. No. 1,415,550; May 9.
Electric resistance elements, Mending. N. Carrico. No. 1,415,524; May 9.
Electric system. F. A. Byles. No. 1,415,309; May 9.
Electrical apparatus. E. D. Eby. No. 1,415,321; May 9.
Electrical body heater and seamer. H. G. Brock. No. 1,415,784; May 9.
Electrical condenser. H. F. Causebrook. No. 1,415,220; May 9
Electrical machines, Rotor for. B. Ames. No. 1,415,761; May 9.
Electrical machines, Stator for. B. Ames. No. 1,415,762; May 9.
Electrical motors, Mechanical construction of. J. J. Holahan. No. 1,415,564; May 9.
Electrical oscillations, Selectively opposing impedance to received. M. I. Pupin and E. H. Armstrong. No. 1,415,845; May 9.
Electrical resistor. E. Weintraub. No. 1,415,748; May 9.
Electrode for electric-arc welding and metal-cutting purposes. W. H. Boorne. No. 1,415,774; May 9.
Electrolyzer. R. Pechkranz. No. 1,415,466; May 9.
Electrostatic generator. W. S. Bowen. No. 1,415,779; May 9.
Elevator device. M. Mickelson. No. 1,415,603; May 9.
Elevator-door construction. J. C. Heinzelman. No. 1,415,639; May 9.
Engine: *See*—
Explosion engine. Rotary engine.
Internal-combustion engine.
Engine-starting apparatus. J. K. Delano. No. 1,415,531; May 9.
Engines, Automatic oiling device for internal-combustion. F. J. C. Nichalson. No. 1,415,464; May 9.
Engines, Cooling arrangement for exhaust valves of internal-combustion. G. Cattaneo. No. 1,415,793; May 9.
Engines, Cylinders of uniflow steam. H. Pilling. No. 1,415,697; May 9.
Engines, Device for preheating the explosive mixture in explosion. G. W. McIlrath and J. E. Taylor. No. 1,415,184; May 9.
Engines, Ignition apparatus for internal-combustion. F. Kratz, H. Starker, and O. Selling. No. 1,415,581; May 9.
Erasing shield. M. Edmundson. No. 1,415,088; May 9.
Evaporating liquid or semiliquid substances, Method of and apparatus for. R. G. Brindle and A. H. Flint. No. 1,415,783; May 9.
Evaporation of stored liquid, Prevention of. F. A. Howard, C. I. Robinson, and J. M. Jennings. No. 1,415,351; May 9.
Evaporation, Prevention of. F. A. Howard and J. M. Jennings. No. 1,415,352; May 9.
Evaporator. J. C. Miller. No. 1,415,255; May 9.
Excavating and loading device. G. C. Crossley. No. 1,415,223; May 9.
Excavating apparatus. S. Gautereaux. No. 1,415,544; May 9.
Excavator. P. W. Hill. No. 1,415,561; May 9.
Expansible bit. J. Crawford and F. A. Weaver. No. 1,415,317; May 9.
Explosive engine. O. E. Kallwitz. No. 1,415,096; May 9.
Extension table. M. Grossman. No. 1,415,549; May 9.
Fabric, Apparatus for making strand. W. Jameson. (Reissue.) No. 15,349; May 9.
Fabric feed, Continuous. M. Castricum. No. 1,415,312; May 9.
Farm products, Machine for preparing. F. M. Parks and F. A. Finch. No. 1,415,191; May 9.
Feed device, Strip-. S. R. Shoup. No. 1,415,721; May 9.
Feeder, Chick. W. A. McCollough. No. 1,415,375; May 9.
Feeding device. E. R. Draver. No. 1,415,319; May 9.
Fender attachment. O. O. Ballard and J. C. Stedman. No. 1,415,295; May 9.
Fertilizer distributer. A. A. Hodges. No. 1,415,643; May 9.
Fibrous material, Container for. M. Silverman. No. 1,415,722; May 9.
File rack. E. Pearl. No. 1,415,110; May 9.
Film and composition for making the same, Base for antistatic. P. C. Seel. No. 1,415,059; May 9.
Film clip. W. T. Oxley. No. 1,415,189; May 9.
Film holder. A. B. Bourne. No. 1,415,776; May 9.
Films, threads, and filaments, Preparation and preservation of viscose solutions of cellulose for the production of. W. O. Mitscherling. No. 1,415,040; May 9.
Filter press. R. D. Lucas. No. 1,415,461; May 9.
Fire extinguisher, Portable. G. Schworetzky. No. 1,415,717; May 9.
Fire indicator. O. D. Purington. No. 1,415,390; May 9.
Fish, Machine for separating flesh from the skin and bones of. J. J. Barry. No. 1,415,296; May 9.
Fishing rod. J. C. Caldwell. No. 1,415,310; May 9.
Floor construction. A. G. Hatch. No. 1,415,554; May 9.
Floor furnace. A. Gamble. No. 1,415,234; May 9.
Flower and making it, Artificial. E. B. Austin. No. 1,415,764; May 9.
Fluid compressor. C. B. Van Horn. No. 1,415,852; May 9.
Flume construction. A. H. Stowell. No. 1,415,274; May 9.
Fluting machine. W. E. Estep, A. E. Hamilton, and E. L. Simonson. No. 1,415,819; May 9.
Fodder, Unloading device relative to unloading. L. E. Hoelscher. No. 1,415,034; May 9.
Food machine. J. and H. Trust. No. 1,415,735; May 9.
Food, Making prepared. D. M. Anderson. No. 1,415,137; May 9.
Frame: *See*—
Clock frame. Picture frame.
Frame construction. A. G. Borchert. No. 1,415,775; May 9.
Freight carrier, Sliding knockdown. G. C. Kennedy. No. 1,415,244; May 9.
Fruit and vegetable cutter. M. Kirnbauer. No. 1,415,449; May 9.
Fruit coring, sizing, and slicing machine. E. J. Lewis. No. 1,415,458; May 9.
Fruits, vegetables, and other substances, Apparatus for drying. G. H. Benjamin. No. 1,415,010; May 9.
Fuel-feed apparatus. W. J. Frisbie. No. 1,415,026; May 9.
Fuel-feed system. F. E. Edwards. No. 1,415,162; May 9.
Fuel saver. A. Oschmann. No. 1,415,607; May 9.
Fuels, Burner for gaseous and liquid. H. Netzgens. No. 1,415,383; May 9.
Furnace: *See*—
Floor furnace. Muffle furnace.
Furnace. P. Murphy. No. 1,415,107; May 9.
Furnaces, Front wall for open-hearth. J. O. Griggs. No. 1,415,630; May 9.
Fuse, Shell. O. D. Lucas. No. 1,415,593; May 9.
Fusing implement, Electrically-heated. E. W. Putnam. No. 1,415,479; May 9.
Game apparatus. W. Roth. No. 1,415,267; May 9.
Game, Card. L. Crossland. No. 1,415,019; May 9.
Game of skill. J. Keckeis. No. 1,415,364; May 9.
Garbage disposal, Method and apparatus for. C. G. Armstrong. No. 1,415,290; May 9.
Garment hanger. P. D. Weeks. No. 1,415,747; May 9.
Garment-hanger bracket. C. B. Corbin. No. 1,415,316; May 9.
Garment protector for autoseats. E. L. and A. L. Tuchs. No. 1,415,626; May 9.
Garter. E. S. Hersperger. No. 1,415,030; May 9.
Gas burner. P. J. Boban. No. 1,415,141; May 9.
Gas burners, Delayed cut-off for. R. D. Smith. No. 1,415,062; May 9.
Gas producer, Method of and apparatus for preventing the accumulation of sticky condensed products of a gas producer upon the relatively movable engaging surfaces of the fuel-feeding mechanism applied to a. C. C. Hoffman and J. M. Caslin. No. 1,415,238; May 9.
Gases from internal-combustion engines, Arrangement for purifying and rendering odorless the exhaust. P. Wachtel. No. 1,415,418; May 9.
Gases, Process of and apparatus for extracting, liquifying, and separating liquifiable constituents of. E. Schill and F. Wardick. No. 1,415,058; May 9.
Gasket for intake manifolds. G. Kunz. No. 1,415,656; May 9.

Gauge: *See*—
Pressure gauge.
Gauge. H. M. Rockwell. No. 1,415,054; May 9.
Gear construction. G. Fuegel and H. Schmid. No. 1,415,542; May 9.
Gear mechanism, Change-. C. Bouillon. No. 1,415,515; May 9.
Gear, Steering. J. R. Clark and H. A. Flogaus. No. 1,415,798; May 9.
Gear structure, Reverse-. C. E. Mills. No. 1,415,673; May 9.
Gears by grinding, Forming. P. Brown and F. J. Bostock. No. 1,415,016; May 9.
Gearing. C. L. Heisler. No. 1,415,556; May 9.
Generating plant. E. P. Oswald. No. 1,415,385; May 9.
Generator: *See*—
Electrostatic generator. Steam generator.
Glass-cutting square. H. E. Johnson. No. 1,415,650; May 9.
Glass-drawing apparatus. A. P. Whittemore. No. 1,415,133; May 9.
Glass, Treating and working. E. T. Ferngren. No. 1,415,824; May 9.
Glasses for flyers, casters, welders, etc., Protective. N. R. G. Ekwall. No. 1,415,536; May 9.
Governor for electric circuits. E. J. Tomlinson. No. 1,415,496; May 9.
Governor for electrical circuits. E. J. Tomlinson. No. 1,415,495; May 9.
Grain bin. F. R. Edwards. No. 1,415,816; May 9.
Grain-saving device. A. G. Norskog. No. 1,415,684; May 9.
Grain separator. D. Hryniewich. No. 1,415,568; May 9.
Grater. A. Conte. No. 1,415,315; May 9.
Grease-cup tool. L. W. Grein. No. 1,415,440; May 9.
Grinding disk. A. M. Dellinger. No. 1,415,808; May 9.
Grinding tool. P. U. Lovelace. No. 1,415,664; May 9.
Grinding wheel. E. B. Gardner. No. 1,415,331; May 9.
Hair-puff device. I. W. Strahan. No. 1,415,729; May 9.
Hand, Artificial. O. L. Dilworth. No. 1,415,809; May 9.
Hand bag. M. Brill. No. 1,415,305; May 9.
Handle: *See*—
Mop handle.
Hanger: *See*—
Garment hanger.
Harrow. G. W. Ferrell. No. 1,415,825; May 9.
Hay knife, Power-actuated. F. Cabalka. No. 1,415,789; May 9.
Headlight, Dirigible. J. F. Keller. No. 1,415,243; May 9.
Headlight, Vehicle-. R. A. Gibbs. No. 1,415,236; May 9.
Heat-controlling regulator, Thermostatic. J. J. Lawler No. 1,415,584; May 9.
Heat, Producing. W. S. Bowen. Nos. 1,415,780–1; May 9.
Heater: *See*—
Electric heater. Water heater.
Liquid heater.
Heating apparatus. M. P. Hatchett. No. 1,415,345; May 9.
Heel. C. H. Hall. No. 1,415,442; May 9.
High-speed cutting tools, Making. J. H. L. De Bats. No. 1,415,021; May 9.
High-speed tools material. A. Boerder. No. 1,415,085; May 9.
Hoe drill. W. H. Mitchell. No. 1,415,674; May 9.
Holding appliances while heated, Instrument for. R. H. W. Strang. No. 1,415,414; May 9.
Hook: *See*—
Chain hook.
Horn and return bail, Combined. J. J. and C. W. Hopps. No. 1,415,350; May 9.
Hydrocarbon burner. F. Schulz. No. 1,415,123; May 9.
Hydrocarbon-burner apparatus. C. A. Orr. No. 1,415,384; May 9.
Hydrocarbon motor. H. D. Church. No. 1,415,086; May 9.
Hydrocarbon motor. J. G. Vincent. No. 1,415,067; May 9.
Hydrocarbon motor. L. M. Woolson. No. 1,415,080; May 9.
Hydrocarbon motors, Propeller drive for. O. E. Hunt. No. 1,415,092; May 9.
Ice-cream mix, Making. A. R. Sanna. No. 1,415,715; May 9.
Ice cream, Production of. L. H. P. Maynard. No. 1,415,669; May 9.
Ice manufacture. R. Ellis. No. 1,415,325; May 9.
Ignition systems, Circuit controller for. J. H. Lehman. No. 1,415,370; May 9.
Incubator. A. C. Thériault. No. 1,415,732; May 9.
Index cases, Follower block for card. L. Hoffman. No. 1,415,035; May 9.
Indicator: *See*—
Fire indicator. Tire indicator.
Ink distributor. W. J. Ramsaier. No. 1,415,480; May 9.
Insulating composition. R. R. Williams. No. 1,415,076; May 9.
Insulated wire, Making. W. E. Cook. Nos. 1,415,151–6; May 9.
Instrument for holding appliances while heated. R. W. Strang. No. 1,415,414; May 9.
Integrating devices, Correction mechanism for. E. Meitner. No. 1,415,601; May 9.
Internal-combustion engine. R. M. Lovejoy. No. 1,415,374; May 9.
Internal-combustion engine. F. J. Reed. No. 1,415,481; May 9.
Internal-combustion engine and controlling combustion therein. R. H. Folsom. No. 1,415,025; May 9.
Internal-combustion engine attachment. R. L. Skinner. No. 1,415,060; May 9.
Ironing machine. C. L. Braley. No. 1,415,302; May 9.
Ironing machine, Yoke-. C. L. Braley. No. 1,415,303; May 9.
Jack: *See*—
Pump jack.
Jack. T. H. Cyrus. No. 1,415,805; May 9.
Jars, Method and device for handling preserving. G. Winkler. No. 1,415,618; May 9.
Jewel-setting machine. L. E. Garnett. No. 1,415,235; May 9.
Joint: *See*—
Box joint.
Journal box. A. E. Ostrander and H. H. Williams. No. 1,415,045; May 9.
Journal box. A. E. Ostrander and H. H. Williams. Nos. 1,415,108–9; May 9.
Key. B. P. Hayes. No. 1,415,029; May 9.
Kiln: *See*—
Tunnel kiln.
Knitting-machine needle. J. C. Egly. No. 1,415,322; May 9.
Knitting machine, Split-work. A. Landry. No. 1,415,583; May 9.
Lamp. H. A. Douglas. No. 1,415,087; May 9.
Lamp. E. A. Hawthorne. No. 1,415,555; May 9.
Lamp, Battery-testing. C. L. Maritzen. No. 1,415,254; May 9.
Lamp shade and making. A. Ziska, Jr. No. 1,415,136; May 9.
Lamps, Delayed cut-off arrangement for mantle gas. R. D. Smith. No. 1,415,063; May 9.
Lantern. W. S. Hamm. Nos. 1,415,634–5; May 9.
Lantern. W. S. Hamm and F. A. Schuetz. No. 1,415,633; May 9.
Latch. J. N. Brown. No. 1,415,786; May 9.
Latch. J. L. Pollock. No. 1,415,192; May 9.
Latch for vehicle doors. R. V. Kaimer and C. E. Ritter. No. 1,415,839; May 9.
Lathe. A. Drummond. No. 1,415,228; May 9.
Lathe body. A. Drummond. No. 1,415,227; May 9.
Lathe slide. A. Drummond. No. 1,415,226; May 9.
Laundry irons, Thermostatic circuit closer for. A. E. Fitzgerald. No. 1,415,829; May 9.
Leather yarn and article, Making. W. M. Cavanaugh. No. 1,415,313; May 9.
Legs, Back check and controller for artificial. A. Forster. No. 1,415,329; May 9.
Lens and making the same multifocal. T. B. Drescher. No. 1,415,535; May 9.
Lens-blocking machine. H. W. Hill. No. 1,415,560; May 9.
Lens-grinding machine. L. G. Simpson. No. 1,415,613; May 9.
Lens, Multifocal ophthalmic. A. J. Cross. No. 1,415,318; May 9.
Lenses, Mounting for reading. J. J. Bausch. No. 1,415,511; May 9.
Lifting implement. H. W. Roos. No. 1,415,055; May 9.
Light: *See*—
Navigation light.
Lighting-fixture-cleaning device. E. D. Tillson. No. 1,415,065; May 9.
Lighting system. G. W. Daggett. No. 1,415,159; May 9.
Lighting system for power tables. J. D. Karle. No. 1,415,453; May 9.
Link, Detachable. J. Pavoni. No. 1,415,692; May 9.
Liquid-cooling apparatus. H. W. Dyer. No. 1,415,231; May 9.
Liquid heater, Electrically-heated. C. H. Lauth. No. 1,415,457; May 9.
Liquids, Distillation or evaporation of. J. L. Major. No. 1,415,667; May 9.
Liquids with dry material, Method and means for mixing. T. B. Peterson. No. 1,415,851; May 9.
Loading machine. W. Schulter, Jr. No. 1,415,485; May 9.
Lock: *See*—
Movable-parts lock. Vehicle lock.
Pedal lock.
Lock. A. Kendechy. No. 1,415,651; May 9.
Lock. H. G. Levy. No. 1,415,662; May 9.
Lock. A. Yurow. No. 1,415,503; May 9.
Loom. E. J. Wilson. No. 1,415,286; May 9.
Loom-needle mechanism. G. F. Hutchins. No. 1,415,177; May 9.
Loom picker. W. and Z. Dubois. No. 1,415,161; May 9.
Lorgnette. I. Mandeville. No. 1,415,599; May 9.
Magnetic speedometer. A. C. Wood. No. 1,415,079; May 9.
Mandrel and associated members of lathes. A. Drummond. No. 1,415,229; May 9.
Manganese dioxide and nitric acid, Obtaining. C. J. Reed. No. 1,415,395; May 9.
Mangle. J. Norrie. No. 1,415,262; May 9.
Match-making machine. L. Henninger. No. 1,415,641; May 9.
Measuring and cost-computing machine, Fabric-. D. Turner. No. 1,415,498; May 9.
Measuring machine, Lace-. F. Reichmann. No. 1,415,483; May 9.
Merry-go-round, Infant's. H. A. Fredericks. No. 1,415,831; May 9.

Metal alginates and product derived therefrom, Producing gelling. B. F. Erdahl. No. 1,415,849; May 9.
Metal articles, Hardening. G. C. Nixon. No. 1,415,260; May 9.
Metal sheets, Press for operating on. H. A. and R. H. Griffiths. No. 1,415,838; May 9.
Metal-twisting mechanism. W. J. Young. No. 1,415,502; May 9.
Metals, etc., Method of and apparatus for reducing. A. Bridge. No. 1,415,516; May 9.
Metal-working machine. B. M. W. Hanson. No. 1,415,341; May 9.
Metal-working machines, Feeding and clamping means for. F. M. Davis. No. 1,415,530; May 9.
Metallurgical apparatus. J. Lund. No. 1,415,183; May 9.
Milk-can seal. W. K. Edgar. No. 1,415,431; May 9.
Milling cutter. P. P-G. Hall. No. 1,415,339; May 9.
Mine, Depth-controlled. E. A. Sperry, Jr. No. 1,415,614; May 9.
Mine-skip loader. C. L. Lawton. No. 1,415,181; May 9.
Moisture, Apparatus for determining. F. E. Greenwood. No. 1,415,546; May 9.
Mold: *See*—
Tire mold.
Mop handle. E. Finley. No. 1,415,827; May 9.
Mortising machine. G. W. Campbell. No. 1,415,790; May 9.
Motion, Mechanism for converting rotary into reciprocatory. R. Goldschmidt. No. 1,415,335; May 9.
Motor: *See*—
Hydrocarbon motor.
Motor-brush shunts, Adapter for. D. R. Knopp. No. 1,415,577; May 9.
Motor-control system, Regenerative. S. T. Webster. No. 1,415,284; May 9.
Motor-starting device. G. A. Burnham. No. 1,415,521; May 9.
Mouth prop. J. A. Heidbrink. No. 1,415,347; May 9.
Movable-parts lock. I. M. Jacobs and W. Cramer. No. 1,415,354; May 9.
Musical instruments, Attachment for adjusting the pitch of wind. R. Pinnavaja. No. 1,415,051; May 9.
Musical instruments, Tune sheet for automatic. L. Köhler. No. 1,415,579; May 9.
Musical notation. S. A. Reeve. No. 1,415,396; May 9.
Muffle furnace. J. R. C. August. No. 1,415,424; May 9.
Navigation light. J. A. O'Neil. No. 1,415,685; May 9.
Needle. G. Pitoni. No. 1,415,698; May 9.
Needle, Crochet. V. Puc. No. 1,415,472; May 9.
Nipple-expanding machine. P. Mueller and A. C. Schuermann. No. 1,415,043; May 9.
Nozzle, Spraying and distributing. P. Cameron. No. No. 1,415,523; May 9.
Nutcracker. A. C. Guhl. No. 1,415,338; May 9.
Nuts and the like, Device for locking. O. Nettlefold. No. 1,415,681; May 9.
Nut, Sectional inspective. D. C. Klausmeyer. No. 1,415,840; May 9.
Oiler, Spring. H. Norris. No. 1,415,263; May 9.
Oil burning forge. C. C. Hansen. No. 1,415,553; May 9.
Oil in wells and removing the oil therefrom, Increasing the quality and volume of. E. C. Hallmark. No. 1,415,552; May 9.
Oil switch. B. Price. No. 1,415,114; May 9.
Oil wells, Coupling device for. P. H. Burlin. No. 1,415,788; May 9.
Oils, Apparatus for the extraction of. H. Engel. No. 1,415,433; May 9.
Oils under pressure, Cracking. C. Ellis. No. 1,415,232; May 9.
Oiling device. B. H. Skelly. No. 1,415,124; May 9.
Optician's tool. J. M. Lawlor. No. 1,415,659; May 9.
Ophthalmic mounting. E. L. Schumacher and W. H. Boutelle. No. 1,415,612; May 9.
Ore concentration. D. D. Moffat. No. 1,415,105; May 9.
Ore briquette. D. B. Jones. No. 1,415,094; May 9.
Ores and zinc products, Treating zinc. N. C. Christensen. No. 1,415,797; May 9.
Ores by flotation, Apparatus for the separation of. H. C. and E. A. Colburn. No. 1,415,314; May 9.
Ores, Jigs for concentrating. J. R. Combs. No. 1,415,428; May 9.
Ores of vanadium, Treatment of. A. Gildemeister. No. 1,415,028; May 9.
Ores, Treating lead-zinc sulphide. N. C. Christensen. No. 1,415,796; May 9.
Organ swell, Reed-. A. G. Lundquist and K. J. A. Johnson. No. 1,415,665; May 9.
Overhead carrier. L. S. Hudson. No. 1,415,448; May 9.
Packages, Making and sealing. J. G. Jones. No. 1,415,038; May 9.
Packing, Metallic. E. Wilson. No. 1,415,078; May 9.
Padlock, Permutation. P. J. Fonos. No. 1,415,327; May 9.
Pads, books, etc., Detachable cover for. O. Loewenbach. No. 1,415,591; May 9.
Paint, Composition of matter for fire and water proof. A. H. Mikesell. No. 1,415,380; May 9.
Paper bottles, Manufacture of. J. G. V. Lang. No. 1,415,100; May 9.
Paper cabinet. H. A. Gurney. No. 1,415,170; May 9.
Pea separator, Wild-. C. L. Palmer and J. R. Hollister. No. 1,415,610; May 9.
Peat and the like, Pressing of. W. B. J. Robertson. No. 1,415,398; May 9.
Pedal lock. C. D. Bailey. No. 1,415,425; May 9.
Peeling machine. V. E. Ballester. No. 1,415,766; May 9.
Pen, Fountain. F. E. Sharah y Cantos. No. 1,415,718; May 9.
Pennant, Illuminated. T. J. Navins. No. 1,415,680; May 9.
Percussion firing mechanism. G. W. Nusbaum. No. 1,415,044; May 9.
Perspectoscope. H. Ginsburg. No. 1,415,833; May 9.
Phonograph-record holder. A. Wenger. No. 1,415,749; May 9.
Phonograph-stopping attachment. F. E. Smith. No. 1,415,270; May 9.
Photographic apparatus. R. A. Moore. No. 1,415,042; May 9.
Photographic printing and numbering machine. G. M. Dye. No. 1,415,230; May 9.
Photographs, Album or holder for. B. U. Cueny. No. 1,415,429; May 9.
Pianos, Lighting device for player. R. C. Morenus. No. 1,415,041; May 9.
Pianos, Mandolin attachment for. P. C. Johnson. No. 1,415,574; May 9.
Picker: *See*—
Loom picker.
Pickling machine. W. C. Leinbach. No. 1,415,589; May 9.
Picture constructor. P. A. Rontey and R. Taylor. No. 1,415,712; May 9.
Picture frame. L. Koppersmith. No. 1,415,654; May 9.
Pigment, White. H. R. Rafsky. No. 1,415,391; May 9.
Pin: *See*—
Safety pin.
Pin-point protector. J. C. Gordon. No. 1,415,835; May 9.
Pipe. S. T. Cook. No. 1,415,221; May 9.
Pipe coupling. A. B. Courchene. No. 1,415,157; May 9.
Pistol, Self-cocking. E. C. Fey. No. 1,415,326; May 9.
Pistons, Gudgeon-pin bush for. R. Allen. No. 1,415,422; May 9.
Piston rings and die for same, Making. W. H. Gray and J. W. Howlett. No. 1,415,439; May 9.
Piston rings, Making. A. W. Albrecht. No. 1,415,620; May 9.
Platinum substitute in chemical apparatus and other uses and making same, Composition of matter for. F. A. Fahrenwald. No. 1,415,233; May 9.
Plow. W. W. Cameron. No. 1,415,311; May 9.
Plow, Rotary. C. L. Lilleberg. No. 1,415,663; May 9.
Pocket, Safety overall. A. S. Blowers. No. 1,415,299; May 9.
Pole, Extensible. C. J. Carlson and A. W. Larsen. No. 1,415,145; May 9.
Polishing composition or mixture. J. M. Inouye. No. 1,415,570; May 9.
Polishing machine. V. Puc. No. 1,415,478; May 9.
Pot: *See*—
Tin pot.
Power transmission. H. C. Ford. No. 1,415,164; May 9.
Power-transmission appliance. P. J. Rooney. No. 1,415,120; May 9.
Power-transmitting device, Portable. W. J. Lindecker. No. 1,415,460; May 9.
Potash from cement mixtures, Recovery of. D. D. Jackson. No. 1,415,572; May 9.
Potash from saline deposits and brines, Extracting. E. P. Stevenson. No. 1,415,204; May 9.
Potash, Recovering. E. P. Stevenson. No. 1,415,203; May 9.
Precision instrument. G. E. Giambiasi. No. 1,415,627; May 9.
Press: *See*—
Die press.
Filter press.
Vulcanizing press.
Press. L. Perotti. No. 1,415,611; May 9.
Pressure gauge. W. Richter. No. 1,415,710; May 9.
Pressure rollers, Floating shear control for. J. L. Wheeler and E. A. Reed. No. 1,415,501; May 9.
Priming cup. W. Grikscheit. No. 1,415,548; May 9.
Printing plates, Filing. H. R. Grant. No. 1,415,629; May 9.
Projectile bands, Machine for sizing. A. W. Limont. No. 1,415,459; May 9.
Propeller, Variable-pitch. D. F. Zook. No. 1,415,756; May 9.
Puller: *See*—
Wheel puller.
Pump. I. W. Wepplo. No. 1,415,617; May 9.
Pump. G. B. Trew. No. 1,415,417; May 9.
Pump jack. W. G. Jensen. No. 1,415,037; May 9.
Pumping system. H. Beddoes. No. 1,415,769; May 9.
Pumping system. A. Priestman. No. 1,415,701; May 9.
Punching machine, Metal-. G. P. Kline. No. 1,415,246; May 9.
Puzzle device, Picture. J. J. Kennedy. No. 1,415,245; May 9.
Puzzle, Movable-block. M. Bulister. No. 1,415,625; May 9.
Rack: *See*—
Bookrack.
File rack.
Radiator caps, Lock for. F. N. Brown, Jr. No. 1,415,517; May 9.
Radiator, Electric. H. H. Berry. No. 1,415,770; May 9.
Radiocontrolling device. E. T. Jones. No. 1,415,179; May 9.

Rail anchor. H. G. Warr. Nos. 1,415,743–4; May 9.
Rail clamp, Guard-. H. G. Warr. No. 1,415,742; May 9.
Rail splice. S. George. No. 1,415,545; May 9.
Railway rails, Indicator for downward deflection of. W. W. Wooster. No. 1,415,287; May 9.
Railway safe-running device. A. R. Angus. No. 1,415,214; May 9.
Railway structure, Pleasure-. J. A. Miller. No. 1,415,187; May 9.
Railway tie, Metallic. D. Miller. No. 1,415,672; May 9.
Railway track. J. L. Cosby. No. 1,415,802; May 9.
Railway with aeroplane cars, Monorail. T. Roghmanns. No. 1,415,400; May 9.
Ratchet wrench. M. H. Terry. No. 1,415,731; May 9.
Razor, Safety. J. A. Williamson. No. 1,415,077; May 9.
Reamer. W. C. Ruhlandt. No. 1,415,121; May 9.
Recorder. J. N. Tuttle. No. 1,415,499; May 9.
Recording instrument. J. R. Craighead. No. 1,415,528; May 9.
Recording instruments, Chart support for. F. C. Buechman. No. 1,415,306; May 9.
Reel: *See*—
Stripping reel.
Reenforcing bars, Making spacing devices for. W. E. White. No. 1,415,285; May 9.
Refrigerating apparatus. E. F. Fisher. No. 1,415,828; May 9.
Refrigerating apparatus. J. Zander. No. 1,415,504; May 9.
Refrigerating system. W. W. Robinson. No. 1,415,399; May 9.
Refrigerators, Tank for. J. Miller. No. 1,415,381; May 9.
Regulator: *See*—
Arc-current regulator.
Reproducer. M. Jones. No. 1,415,361; May 9.
Resilient wheel. A. L. Schultz. No. 1,415,486; May 9.
Resistance unit. L. P. Hynes. No. 1,415,240; May 9.
Resistance, Variable. H. P. Donle. No. 1,415,534; May 9.
Rest-producing structure. M. F. Madden. No. 1,415,597; May 9.
Retort, Furnace. C. H. Smith. No. 1,415,201; May 9.
Retort, Furnace. C. H. Smith. No. 1,415,846; May 9.
Retort, Furnace. C. H. Smith and E. B. Edwards. No 1,415,061; May 9.
Ribbon-cutting machines, Gumming device for. J. H. Hoffman. Nos. 1,415,562–3; May 9.
Riddle. H. O. Magnuson. No. 1,415,598; May 9.
Rim, Demountable. A. C. Stantz. No. 1,415,272; May 9.
Ring traveler. P. C. Wentworth. Nos. 1,415,069–71; May 9.
Ring: *See*—
Piston ring.
Ring traveler. P. C. Wentworth. No. 1,415,073; May 9.
Rings, Making composite. A. O. Burgess. No. 1,415,520; May 9.
Rod: *See*—
Fishing rod.
Rod and making same. A. J. Gauthier. No. 1,415,091; May 9.
Rod and tool coupling. S. E. Lane. No. 1,415,658; May 9.
Roller copying machines, Paper roll for. R. Berger. No 1,415,084; May 9.
Rotary engine. T. Raugstad. No. 1,415,393; May 9.
Round stock, Apparatus for turning handles from. J. S. Tilling and H. Dobbins. No. 1,415,416; May 9.
Rubber-like substances, Manufacture of. H. Plauson. No. 1,415,468; May 9.
Rule and gauge, Machinist's. A. J. Stock. No. 1,415,615; May 9.
Saccharine trap. G. Engel, Sr. No. 1,415,818; May 9.
Safety clasp. H. V. Basley. No. 1,415,509; May 9.
Safety pin. V. Puc. No. 1,415,473; May 9.
Safety pin. V. Puc. Nos. 1,415,475–6; May 9.
Salvage apparatus, Deep-sea. A. E. Lemon. No. 1,415,661; May 9.
Sand-blast apparatus. R. Ruemelin. No. 1,415,403; May 9.
Sanitary closet. B. B. Shollenberger. No. 1,415,719; May 9.
Saw, Lumberjack. H. A. Knowles. No. 1,415,247; May 9.
Sawmill dog. A. L. Haase. No. 1,415,172; May 9.
Scale-beam construction. E. A. M. Bandoly. No. 1,415,508; May 9.
Scraper, Bearing. A. Patigian. No. 1,415,048; May 9.
Screw driver. T. J. Fegley and W. S. Snyder. No. 1,415,822; May 9.
Screw driver. W. L. McLean. No. 1,415,251; May 9.
Screw drivers, Ratchet attachment for. W. H. Puhl. No. 1,415,389; May 9.
Seat: *See*—
Closet seat.
Seat. H. S. Roberts. No. 1,415,711; May 9.
Seat spring. C. F. Green. No. 1,415,837; May 9.
Seeds, grain, and the like, Apparatus for cleaning and separating. F. M. Dosser. No. 1,415,811; May 9.
Selector switch. C. A. W. Hultman. No. 1,415,648; May 9.
Selenium and noble metals from electrolytic slimes, Recovering. M. Chikashige and D. Uno. No. 1,415,526; May 9.
Separator: *See*—
Grain separator.
Dust separator.
Wild-pea separator.
Sewage purifier. J. P. Ball. No. 1,415,007; May 9.
Sewing buttons to shoe uppers, Machine for. B. T. Leveque. No. 1,415,250; May 9.
Sewing machine, Revolving-hook. A. D. Smith. No. 1,415,268; May 9.
Sewing machines, Button clamp for. W. L. Barron. No. 1,415,426; May 9.
Sewing machines, Light attachment for. A. T. Bertolini. No. 1,415,771; May 9.
Sewing machines, Rotary take-up for. A. D. Smith. No. 1,415,269; May 9.
Shaft attachment. G. G. Purcell. No. 1,415,702; May 9.
Shaft-lubricating system. F. W. Krogh. No. 1,415,367; May 9.
Shaft-turning device, Hand. J. Kindl. No. 1,415,039; May 9.
Sharpener, Knife. M. L. Luebben. No. 1,415,375; May 9.
Shaving sticks, Container and holder for. J. B. Albright. No. 1,415,621; May 9.
Shears, Hand. W. Pacey. No. 1,415,609; May 9.
Sheet-metal forming machines, Rolls for. E. H. Scott. No. 1,415,408; May 9.
Sheets printed in cylinder-flat-bed machines, Device for interleaving. C. Winkler. No. 1,415,752; May 9.
Shingle. E. R. Snyder. (Reissue.) No. 15,352; May 9.
Shingle, Butt-end interlocking composition. H. G. Hose. No. 1,415,175; May 9.
Shingle cutter, Strip-. H. Abraham. No. 1,415,758; May 9.
Shingles, Machine for making. R. W. Jagenburg. No. 1,415,649; May 9.
Ships and aircraft, Apparatus for maneuvering. E. S. G. Rees. No. 1,415,705; May 9.
Shock absorber. R. V. Converse. No. 1,415,799; May 9.
Shoe, Adjustable. G. W. Meyer and C. A. Roos. No. 1,415,602; May 9.
Shoe-buttoning machine. L. J. Van Guelpren. No. 1,415,737; May 9.
Shoe dressing. Composition for. P. Thoreson. No. 1,415,208; May 9.
Shoe-polishing device. J. Bauer. No. 1,415,510; May 9.
Shoe-shining machine. J. A. Parent. No. 1,415,689; May 9.
Shoe stretcher and tree, Combined. A. B. Elmstrom. No. 1,415,537; May 9.
Sifter, Ash. M. Kamenstein. No. 1,415,575; May 9.
Signal: *See*—
Traffic signal.
Signal device. J. T. McGrath. No. 1,415,595; May 9.
Silicon and nitrogen, Production of compounds containing. F. Von Bichowsky. No. 1,415,280; May 9.
Skips, Means for closing and opening. F. Uhlig. No. 1,415,066; May 9.
Slate, Treatment of. C. R. Hayward and H. M. Schleicher. No. 1,415,346; May 9.
Slimes, Dehydrating and recovering values from. M. A. Parmeter. No. 1,415,387; May 9.
Slug stacker. W. E. Pressler. No. 1,415,471; May 9.
Smoothing machine, Edge-. C. Brown. No. 1,415,785; May 9.
Snap button. V. Puc. No. 1,415,474; May 9.
Snap fasteners, Machine for setting. A. Frankel. No. 1,415,330; May 9.
Soap in water, Emulsification of resin. O. Kamm. No. 1,415,363; May 9.
Sound-reproducing machines, Control means for. F. Cheney. No. 1,415,525; May 9.
Sound-reproducing device. P. B. Delany. No. 1,415,807; May 9.
Spark plug. L. G. Howard. No. 1,415,447; May 9.
Spark plug. L. E. Kottmeyer. No. 1,415,248; May 9.
Spark plug. G. Marotta. No. 1,415,668; May 9.
Speed circuit controller. A. G. Shaver. No. 1,415,412; May 9.
Spinning machines, Roller-bar tip for. L. B. Reid. No. 1,415,707; May 9.
Spotlight control. H. J. Segur. No. 1,415,409; May 9.
Spray sprinkler. V. A. H. Kahler. No. 1,415,452; May 9.
Spring: *See*—
Seat spring.
Spring wheel. P. M. Schneckenburger. No. 1,415,716; May 9.
Sprinkler: *See*—
Spray sprinkler.
Sprinkler head. A. F. Mowry. No. 1,415,677; May 9.
Stacker, Pneumatic straw. F. B. Carter. No. 1,415,792; May 9.
Stacker, Pneumatic straw. W. O. Van Deventer. No. 1,415,736; May 9.
Stanchions, Aligning means for. H. C. Rassmann. No. 1,415,117; May 9.
Stand: *See*—
Display stand.
Steam boilers, Method of and means for blocking or corrugating headers for. R. Rees. No. 1,415,706; May 9.
Steam generators. W. S. Bowen. Nos. 1,415,777–8; May 9.
Steering mechanism. C. Johnson and F. G. Meyer. No. 1,415,095; May 9.
Steering mechanisms, Automatic locking and retaining device for. A. Borofsky. No. 1,415,300; May 9.
Stepladder. F. J. Caronia. No. 1,415,791; May 9.
Stepladder. C. M. Waggoner. No. 1,415,739; May 9.
Stoker feeding attachment. J. C. Casler. No. 1,415,146; May 9.
Stool, Treatment. J. V. McManis. No. 1,415,252; May 9.

Storage batteries, Discharge indicator for. H. Lesley. No. 1,415,101; May 9.
Storage battery. G. A. Baumetz. No. 1,415,139; May 9.
Storage battery. N. D. Sturges. No. 1,415,275; May 9.
Storage battery and making it. W. H. Crissey. No. 1,415,804; May 9.
Storage-battery cell. R. D. Mowry. No. 1,415,257; May 9.
Stove. A. Holmquist. No. 1,415,349; May 9.
Stove, Gas. J. E. Kennedy. No. 1,415,576; May 9.
Stovepipe anchor or lock. J. E. Daman. No. 1,415,806; May 9.
Stoves, Water heater for gas. C. E. Cole. No. 1,415,527; May 9.
Stripping reel. O. Moynihan. No. 1,415,678; May 9.
Submarine signaling, Method and apparatus for. R. A. Fessenden. No. 1,415,539; May 9.
Suction cleaning apparatus. F. E. Robertson. No. 1,415,053; May 9.
Sulphite liquor, Continuous process of decomposing waste. K. Mörch. No. 1,415,843; May 9.
Switch: *See*—
Airbrake switch.
Oil switch.
Selector switch.
Thermostatic electric switch.
Switch-point connector. G. Goodart. No. 1,415,336; May 9.
Tab holder. E. Seyforth. No. 1,415,488; May 9
Table: *See*—
Extension table.
Table and ironing board, Combined kitchen. G. J. Cronenberger. No. 1,415,529; May 9.
Tag, Laundry. M. G. Rosenthal. No. 1,415,713; May 9.
Talking machines, Automatic nonset stop for. L. Coplin. No. 1,415,800; May 9.
Talking machines, Electric motor for. W. W. Dean. No. 1,415,430; May 9.
Tanks, Fuel strainer for. W. E. Brock. No. 1,415,217; May 9.
Tanning hides and skins. E. W. Merry. No. 1,415,671; May 9.
Tap, Collapsible. R. A. Boehm. No. 1,415,013; May 9.
Tape, Pocket. R. J. Simpson. No. 1,415,489; May 9.
Tar, Apparatus for distilling. C. Schaer. No. 1,415,057; May 9.
Tar, Plant and process for distilling. C. Schaer. No. 1,415,056; May 9.
Target for small-arms practice. C. Fenton. No. 1,415,823; May 9.
Teaching bookkeeping, Apparatus for. F. Tod. No. 1,415,278; May 9.
Templet-filing jaw. T. T. Janis. No. 1,415,573; May 9.
Tent, Collapsible. R. T. Reed. No. 1,415,482; May 9.
Thermal electric cut-out. R. H. Maple. No. 1,415,253; May 9.
Thermostatic electric switch. J. H. Reichart. No. 1,415,050; May 9.
Thrashing machines, Cleaning attachment for. J. R. and E. C. McMillan. No. 1,415,666; May 9.
Thrashing machines, Feeding apparatus for. T. M. Park. No. 1,415,046; May 9.
Tie: *See*—
Railway tie.
Tie-tamping machine. D. A. Robinson. Nos. 1,415,193–4; May 9.
Tin pot. J. W. Free. No. 1,415,166; May 9.
Tinned articles, Brightening and hardening electrolytically-. L. Schulte. No. 1,415,198; May 9.
Tire-building apparatus. C. M. Sloman. No. 1,415,724; May 9.
Tire core. E. Wright. No. 1,415,755; May 9.
Tire cover and the like. A. E. Wale. No. 1,415,281; May 9.
Tire indicator, Flat-. T. M. Eynon. No. 1,415,820; May 9.
Tire mold. R. Heller. No. 1,415,557; May 9.
Tire, Pneumatic. E. M. Beckman. No. 1,415,140; May 9.
Tire, Pneumatic. W. W. Moore. No. 1,415,604; May 9.
Tire protector. P. M. Crain and J. P. Smith. No. 1,415,803; May 9.
Tire pump, Truck. G. J. Spohrer. No. 1,415,725; May 9.
Tire valve and the like. M. C. Schweinert. No. 1,415,407; May 9.
Tire-valve tool. H. C. Gielow. No. 1,415,628; May 9.
Tires, Inner tube for automobile. H. N. Wayne. No. 1,415,283; May 9.
Tires of the solid type, Apparatus for building. R. W. Snyder. No. 1,415,842; May 9.
Tongs. C. D. Briddell. No. 1,415,143; May 9.
Tongs. M. Rosehill. No. 1,415,196; May 9.
Tool holder. F. Knoop. No. 1,415,578; May 9.
Tool holder. T. O. Martin. No. 1,415,379; May 9.
Toothbrush. L. H. Alles. No. 1,415,760; May 9.
Torpedo, Railway signal. F. Dutcher. No. 1,415,813; May 9.
Toy. T. N. Arnold. No. 1,415,292; May 9.
Toy. H. Nordmark. No. 1,415,682; May 9.
Toy flying machine. R. Genovese. No. 1,415,333; May 9.
Toy railroad-gate set. C. W. Wirth. No. 1,415,753; May 9.
Toy shooting gallery. J. Keckeis. No. 1,415,365; May 9.
Toys, Device for producing sparks for. K. Arnold. No. 1,415,763; May 9.
Traction machines, Transmission casing for. H. and L. Nilson. No. 1,415,606; May 9.
Tractor. J. Jandasek. No. 1,415,356; May 9.
Tractor wheel. W. G. Trethewey. No. 1,415,279; May 9.
Traffic signal. T. Jones. No. 1,415,362; May 9.
Trailer leg support. W. Barber. No. 1,415,008; May 9.
Transmission and speed-conversion mechanism. H. H. Suplee. No. 1,415,128; May 9.
Transmission device, Motion-. M. L. Parret. No. 1,415,690; May 9.
Transmission mechanism, Adjustable. G. G. Bayne. No. 1,415,512; May 9.
Transmission mechanism. I. Hupp. No. 1,415,239; May 9.
Trap: *See*—
Animal trap.
Saccharine trap.
Trap. J. Hurley. No. 1,415,093; May 9.
Tree protector. D. Williams. No. 1,415,134; May 9.
Trolley plane, Monotrack. E. H. Palmer. No. 1,415,190; May 9.
Trucks, Brake-hanger support for. J. C. Whitridge and J. C. Larsen. No. 1,415,132; May 9.
Trunk appliance. T. I. Gilbert. No. 1,415,169; May 9.
Tube-cutting machine and crimper. P. J. Kohler. No. 1,415,099; May 9.
Tube-welding machine. J. W. White. No. 1,415,848; May 9.
Tubes, Adjustable plug for cleaning condenser. M. Mannion and R. C. Arthur. No. 1,415,600; May 9.
Tubes, Apparatus for unwrapping inner. L. C. Riblett. No. 1,415,709; May 9.
Tunnel kiln. G. H. Benjamin. No. 1,415,011; May 9.
Turbine. J. O. Carrey. No. 1,415,219; May 9.
Turbine, Elastic fluid. O. Junggren. No. 1,415,571; May 9.
Typewriting machine. A. A. Johnson. No. 1,415,241; May 9.
Turbine, Elastic-fluid. C. S. Rice. No. 1,415,266; May 9.
Turbine, Steam. O. D. H. Bentley. No. 1,415,298; May 9.
Turbocompressors, Pressure regulator for. L. R. Huff. No. 1,415,647; May 9.
Type bars or slugs, Apparatus for casting. J. G. Holbourns. No. 1,415,445; May 9.
Typewriter erasing attachment. J. H. Baldwin. No. 1,415,293; May 9.
Typewriter platen, Noise-reducing. W. R. Mulock. No. 1,415,844; May 9.
Typewriting machine. H. Bates. No. 1,415,138; May 9.
Typewriting machine. E. B. Hess and G. F. Handley. No. 1,415,558; May 9.
Typewriting machine. A. G. F. Kurowski. No. 1,415,455; May 9.
Typewriting machine. J. A. Wherry. No. 1,415,750; May 9.
Typewriting machines, Carriage for. E. B. Hess and L. C. Myers. No. 1,415,031; May 9.
Typographical casting machine. D. S. Kennedy. No. 1,415,454; May 9.
Twisting traveler. P. C. Wentworth. No. 1,415,072; May 9.
Underwaist. M. M. Sturgis. No. 1,415,616; May 9.
Universal joint and brake-drum unit. A. M. Leoni and A. Tischer. No. 1,415,371; May 9.
Vacuum cleaner, Electrically-operated. G. R. Bimm. No. 1,415,773; May 9.
Vacuum feeding apparatus. E. A. Rockwell. No. 1,415,195; May 9.
Valve. E. B. Lane. No. 1,415,249; May 9.
Valve-actuating mechanism for stock-watering bowls. J. B. Olson. No. 1,415,264; May 9.
Valve for chicken fountains, Automatic. J. Imschweiler. No. 1,415,178; May 9.
Valve-grinding tool. A. Loveless. No. 1,415,592; May 9.
Valve mechanism for internal-combustion engines. E. Fuchs. No. 1,415,167; May 9.
Valve or blow-off, Safety. R. V. Bingay. No. 1,415,216; May 9.
Valves, Manufacturing laminated. W. H. Washburne. No. 1,415,745; May 9.
Vapor burner. A. D. Antoine and A. E. Gebert. No. 1,415,215; May 9.
Vapor burner. F. L. Kohlhase. No. 1,415,180; May 9.
Vault, Burial. C. B. Franklin. No. 1,415,435; May 9.
Vehicle body, Convertible. T. P. Troke. No. 1,415,209; May 9.
Vehicle frame construction. A. M. Leoni. No. 1,415,372; May 9.
Vehicle, Hand-propelled. W. L. Nicols. No. 1,415,259; May 9.
Vehicle lock. W. Rollins, C. K. Seymour, and J. A. Sargent. No. 1,415,401; May 9.
Vehicle signal device. I. Dyer. No. 1,415,814; May 9.
Vehicle top. A. G. McGregor. No. 1,415,377; May 9.
Vehicle wheel. C. B. Allen. No. 1,415,288; May 9.
Vehicle wheel. W. F. Betzell. No. 1,415,427; May 9.
Vehicle wheel. F. H. Wilbur. No. 1,415,751; May 9.
Vehicle wheel, Resilient. J. A. Ostendorf. No. 1,415,265; May 9.
Vehicles, Apparatus for indicating and recording the direction and distance of travel of. A. E. Brewerton. No. 1,415,624; May 9.
Vehicles, Cooling device for motor-driven. G. L. Schofield. No. 1,415,122; May 9.
Vehicles, Covering device for folding hoods of. C. Gebhard. No. 1,415,332; May 9.
Vehicles, Drainage system for. L. Charbonneau. No. 1,415,794; May 9.

Vehicles, Locking device for motor. E. J. Redding. No. 1,415,394; May 9.
Vehicles, Mud guard for wheels of. A. Germann and E. Lang. No. 1,415,436; May 9.
Vehicles, Stop and turn signal for. E. A. Fehring. No. 1,415,538; May 9.
Vehicles, Traffic signal for motor. F. M. Elliott. No. 1,415,817; May 9.
Vending machine, Coin-controlled. A. D. Grover. No. 1,415,337; May 9.
Ventilating-hood-lifting device. P. Hossfeld. No. 1,415,567; May 9.
Ventilator. E. Van Noorden. No. 1,415,500; May 9.
Vessels, Apparatus for raising sunken. J. A. De Vito. Nos. 1,415,532–3; May 9.
Violin bouts, Cramping form for. W. F. Bublitz. No. 1,415,144; May 9.
Vise, Quick-setting. G. H. Buckley. No. 1,415,787; May 9.
Vises or wrenches, Quick-action device for. F. W. McQueen. No. 1,415,103; May 9.
Voice intensifier. I. V. Morrell. No. 1,415,462; May 9.
Vulcanizing press. E. E. Allen. No. 1,415,082; May 9.
Washing machine. G. P. Anstiss. No. 1,415,506; May 9.
Washing machine. S. Patt. No. 1,415,691; May 9.
Washing machines, Agitator for. S. Beck. No. 1,415,768; May 9.
Watches, Hand and indicator for. H. F. Cuntz. No. 1,415,158; May 9.
Water heater. W. J. Edwards. No. 1,415,432; May 9.
Water heater. H. Hargreaves. No. 1,415,343; May 9.
Water heater. V. H. Stott and L. Schofield. No. 1,415,728; May 9.
Weed and insect burner. L. F. Souther. No. 1,415,491; May 9.
Well mechanism. S. N. Hall. No. 1,415,551; May 9.
Well mechanism. M. E. Layne and S. N. Hall. Nos. 1,415,585–7; May 9.
Wheel: *See*—
Grinding wheel. Traction wheel.
Resilient wheel. Vehicle wheel.
Spring wheel. Wind wheel.
Wheel puller. A. B. Jones. No. 1,415,451; May 9.
Wheel rim. J. M. Meredith, Jr. No. 1,415,670; May 9.
Wind deflector. J. P. Gray. No. 1,415,836; May 9.
Wind wheel. S. Holterud. No. 1,415,645; May 9.
Winding machine, Grommet-. R. C. Pierce. No. 1,415,696; May 9.
Winding mechanism. A. J. Holmes. No. 1,415,644; May 9.
Wire-filling units to wire-fabric shuttles, Apparatus for automatically feeding. W. S. Southwick. No. 1,415,492; May 9.
Wire-stretching machine. E. J. Elias. No. 1,415,089; May 9.
Wood-slicing machine. P. J. R. Postel-Vinay. No. 1,415,470; May 9.
Work holder. B. M. W. Hanson. No. 1,415,342; May 9.
Wrench: *See*—
Chain wrench. Ratchet wrench.
Wrench. C. C. Finkhousen. No. 1,415,826; May 9.
Wrench. J. W. Saffold. No. 1,415,714; May 9.
Wrench. G. W. Thomas and H. L. Scott. No. 1,415,734; May 9.
Yeast for the purpose of employing it as edible yeast, Improving the odor, taste, and digestibility of raw. H. Plauson. No. 1,415,469; May 9.

ALPHABETICAL LIST OF DESIGNS.

Brush. A. L. Kohn. No. 60,941; May 9.
Doll. C. Greenhood. Nos. 60,939–40; May 9.
Emblem, badge, button, pin, or similar article. G. B. Monk. No. 60,943; May 9.
Flag of the Ethiopian race. J. Cannon. No. 60,934; May 9.
Heel lift, Resilient. L. M. Oakley. No. 60,945; May 9.
Lace. J. Draycott. No. 60,935; May 9.
Lace. S. H. Page. No. 60,946; May 9.
Lace. H. A. Philips. No. 60,948; May 9.
Lamp, Street. J. F. Ne Page. No. 60,944; May 9.
Rug. G. M. Fauser. Nos. 60,936–7; May 9.
Suit, Boy's. F. MacKay. No. 60,942; May 9.
Teething ring. J. N. Patrich. No. 60,947; May 9.
Tire tread, Pneumatic. H. S. Berlin. No. 60,933; May 9.
Toy. J. G. Becker. No. 60,932; May 9.
Toy. A. Gerbensky. No. 60,938; May 9.

ALPHABETICAL LIST OF TRADE-MARKS REGISTERED.

Apples. W. B. Glafke Co. No. 154,790; May 9.
Automobile tire covers. Allen Auto Specialty Co. No. 154,818. May 9.
Bowls, shades, chimneys, canopies, filters, etc. Eclipse Light Company. No. 154,824; May 9.
Burning equipment and burners. J. C. Johnson. No. 154,829. May 9.
Candy. A. Thode. No. 154,810; May 9.
Candy. Up-To-Date Candy Mfg. Co. No. 154,849; May 9.
Candy. Voegele & Dinning Co. No. 154,814; May 9.
Candy. Wirth Chocolate Company. No. 154,816; May 9.
Candies, fancy ices, and cakes. J. M. Murray. No. 154,799; May 9.
Candies. Nunnally Company. No. 154,801; May 9.
Candies. Virginia Dare Company. No. 154,813; May 9.
Canned fish. A/S Trondhjem Canning and Export Co. No. 154,812; May 9.
Canned tomatoes and fruit preserves. Lawndale Wholesale Grocery Company. No. 154,830; May 9.
Chests, Cedar. The Standard Red Cedar Chest Co. No. 154,847; May 9.
Chocolate. Eline's Incorporated. No. 154,786; May 9.
Chocolate, Prepared. M. Z. Torreño. No. 154,811; May 9.
Chocolates and candies. Littlefield & Steere Co. No. 154,796; May 9.
Cleaning and polishing composition for removing and preventing fog on glass. H. M. Leh. No. 154,831; May 9.
Coal. Corona Coal Company. No. 154,782; May 9.
Coffee. C. I. Cook. No. 154,781; May 9.
Coffee. Brewster, Gordon & Co. No. 154,778; May 9.
Coffee. A. L. Parks Tea Company. No. 154,838; May 9.
Coffee. Scnerer & Fix. No. 154,806; May 9.
Coffee flavor in solid, powdered, and liquid form. H. L. Friend. Nos. 154,788–9; May 9.
Coffee, tea, and cocoa. A. L. Parks Tea Company. No. 154,802; May 9.
Combs, shoehorns, and buttonhooks. Minneapolis Drug Company. No. 154,836; May 9.
Corsets and underwaists. George C. Batcheller & Co. No. 154,822; May 9.
Dusters, Unimpregnated. Keystone Sanitary Supply Company. No. 154,794; May 9.
Electrotypes. R. M. Eisenberg. No. 154,785; May 9.
Extract, Food-flavoring. Mystol Manufacturing Co. No. 154,800; May 9.
Flooring, Wooden. H. J. Breeze. No. 154,823; May 9.
Fondant or base for candy, etc. W. L. Caswell. No. 154,780; May 9.
Foods, Certain named. Ambassador Chocolate Company. No. 154,775; May 9.
Fruits, Fresh citrus. Bastanchury Ranch Company. No. 154,777; May 9.
Fruits, Fresh deciduous. Wenatchee Skookum Growers. 154,815; May 9.
Furniture, Bent-wood. Astra Bent Wood Furniture Co. No. 154,820; May 9.
Grapes, Fresh. Dinuba Fruit Growers Company. No. 154,784; May 9.
Hams and bacon. E. Godel & Sons. No. 154,791; May 9.
Hose composed of rubber and fabric. Ingersoll-Rand Company. No. 154,827; May 9.
Hosiery. True Shape Hosiery Co. No. 154,848; May 9.
Ice cream. Hoefler Ice Cream Company. No. 154,793; May 19.
Ice cream and ices. Baker Ice Cream Company. No. 154,821; May 9.
Lard. John Morrell & Company. No. 154,798; May 9.
Lards. Wm. Schluderberg-T. J. Kurdle Co. No. 154,807; May 9.
Lard substitute. F. E. Patrick-Young Co. No. 154,803; May 9.
Malagas. Fowler Grape Growers Association. No. 154,787; May 9.
Manuals, lesson sheets, and pamphlets, and answer sheets. American University of Commerce. No. 154,819; May 9.
Meat, Hog or pork. Swift and Company. No. 154,809; May 9.
Medical and surgical appliances. Meinecke & Company. No. 154,834; May 9.
Notions, Certain named. The Warren Featherbone Company. No. 154,851; May 9.
Oil, White mineral. Standard Oil Company. No. 154,808; May 9.
Oils and polishes and paraffine wax for washing purposes, Leather. Standard Oil Company (Incorporated in New Jersey). No. 154,846; May 9.
Oranges. Covina Orange Growers Association. No. 154,783; May 9.
Paper and envelopes. George B. Hurd & Co. No. 154,826; May 9.
Paper, Printing and writing. Parsons Paper Company. No. 154,839; Mar. 9.
Paper, Toilet. White-Washburne Company, Inc. No. 154,853; May 9.
Paper, Toilet tissue. National Paper Products Company. No. 154,837; May 9.
Papers, generally bond, linen, ledger, bristol, wedding, etc. B. D. Rising Paper Company. Nos. 154,840–2; May 9.
Peanuts, peanut butter, and sandwiches, chocolate bars, Salted. E. T. Bunch. No. 154,779; May 9.
Pens, holders, pencils, and crayons, Fountain, stylographic and common writing. C. H. Eibel. No. 154,825; May 9.
Pens, Stylographic. Sanford Pen Company, Inc. No. 154,843; May 9.
Potatoes. J. P. Milloglav. No. 154,797; May 9.
Prunes, Dried and partially-dried. H. N. Wood. No. 154,817; May 9.
Rubber hose with metal lining, Fabric-covered. Metal Hose & Tubing Co. No. 154,835; May 9.
Tires, Rubber automobile. Smith Rubber & Tire Co. No. 154,845; May 9.
Sauce and ingredient for sauces. La Societe Anonyme des Amidonnerie & Rizerie de France. No. 154,795; May 9.
Sirup, Cane. Roddenbery Bros. No. 154,805; May 9.
Sirup, Corn. American Hominy Company. No. 154,776; May 9.
Soap powder. A. T. Lindberg. No. 154,832; May 9.
Stoves, ranges, and furnaces. Haynes-Langenberg Manufacturing Co. No. 154,792; May 9.
Tablets, Writing. Western Tablet and Stationery Company. No. 154,852; May 9.
Threads, Sewing. Max Pollack & Co. Inc. No. 154,833; May 9.
Tire casings and tubes. The Victor Rubber Company. No. 154,850; May 9.
Tires, Rubber. International India Rubber Corporation. No. 154,828; May 9.
Typewriting machines and parts thereof. L. C. Smith & Bros. Typewriter Co. No. 154,844; May 9.
Yeast used in preparation of bread. C. Priest. No. 154,804; May 9.

ALPHABETICAL LIST OF LABELS.

"Anadora." (For Cigars.) P. Carcel. No. 24,334; May 9.
"Banquet." (For Macaroons.) Ward Baking Company. No. 24,371; May 9.
"Berkshire Pork Sausage Made and Guaranteed By Wm. H. Clark & Sons, Norfolk, Virginia." (For Sausages.) Wm. H. Clark & Sons. No. 24,335; May 9.
"B. Heller & Co.'s Zanzibar-Carbon Indelible Ink." (For Glass Bottles Holding B. Heller & Co.'s Zanzibar-Carbon Indelible Ink.) B. Heller & Company. No. 24,345; May 9.
"B. Heller & Co.'s Zanzibar-Carbon Indelible Ink Eradicator." (For Glass Bottles Holding B. Heller & Co.'s Zanzibar-Carbon Indelible-Ink Eradicator, a Preparation for Removing Indelible-Ink Marks and Stains.) No. 24,346; May 9.
"Blackstone." (For Cigars.) Waitt & Bond, Inc. No. 24,369; May 9.
"Cackle-More." (For Poultry Food.) J. A. Butler. No. 24,333; May 9.
"Caffeer." (For Nonalcoholic, Noncereal, Maltless Beverages Sold as Soft Drinks.) S. & J. Augert Bros. No. 24,330; May 9.
"Carmote Red Seal Floor Enamel." (For Carmote Red Seal Floor Enamel.) Carpenter-Morton Co. No. 24,332; May 9.
"Century." (For Canned String Beans.) Sussman, Wormser & Co. No. 24,366; May 9.
"Cherries." (For Boxes Containing Cherries in Liquid Covered with Milk Chocolate.) Milwaukee Paper Box Company. No. 24,354; May 9.
"Chesterfield." (For Chocolate Caramels.) Metro Chocolate Co. Inc. No. 24,353; May 9.
"Child Ed-U-Kat-Her." (For Boxes or Packages Containing Pasteboard Cut-outs of Fanciful Figures.) Murwood Associates. Nos. 24,357–9; May 9.
"Chu Chin Powder Puffs." (For Merchandise Card for Powder Puffs.) Sandford Importing Co. No. 24,364; May 9.

"De Long Hair Net." (For Hair Nets.) De Long Hook & Eye Co. No. 24,336; May 9.
"18 Karat." (For Canned Pears.) Sussman, Wormser & Co. No. 24,367; May 9.
"Endicott." (For Cigars.) Waitt & Bond, Inc. No. 24,370; May 19.
"Exclusive Features of Real Silk Fashioned Hosiery." (For Containers for Hosiery.) Real Silk Hosiery Mills. No. 24,363; May 9.
"Farmers' Home Veterinary Cabinet." (For Veterinary Cabinets.) Farmers' Veterinary Service, Inc. No. 24,339; May 9.
"Five Fruit." (For a Fruit Sirup.) H. H. Hay Sons. No. 24,342; May 9.
"Golden West." (For Cartons Containing Butter.) Menasha Printing and Carton Company. No. 24,351; May 9.
"Grandma's Absorbo." (For a Penetrating Salve.) Park Laboratory Company. No. 24,360; May 9.
"Heller's Fancy-Pastry Pudding Powder." (For Paper Cartons Containing Heller's Fancy-Pastry Pudding Powders.) B. Heller & Company. No. 24,343; May 9.
"Heller's Snow-Drift." (For Containers Holding Heller's Snow-Drift, a Preparation Used for Making a Marshmallow Filling and Topping.) B. Heller & Company. No. 24,344; May 9.
"Ice Pie." (For Ice Cream Confection.) Louis H. Hoppe and William L. Bruggman. No. 24,349; May 9.
"Mountain Grown." (For Apples.) Hood River Canning Company. No. 24,348; May 9.
"Motor-Kleen." (For a Preparation for Removing Carbon.) Motor-Kleen Corporation. No. 24,356; May 9.
"My Sweetie." (For Candies.) Max Glick Company. No. 24,340; May 9.
"Olde Harlem." (For Boxes of Stationery and Writing Tablets.) White & Wyckoff M'f'g. Co. No. 24,374; May 9.
"Paramount." (For Salad Dressing.) Hirsch Bros. & Co. Incorporated. No. 24,347; May 9.
"Ploughman." (For Cigars.) Pumpelly-Howe Company. No. 24,362; May 9.
"Primrose Silks." (For Silks.) Primrose Silk Stores, Inc. No. 24,361; May 9.
"Red Seal." (For Cartons Containing Butter.) Menasha Printing and Carton Company. No. 24,352; May 9.
"'Roll' Your Label Troubles Away." (For Gummed Labels in Rolls.) Eastern Pin Ticket & Tag Co. No. 24,337; May 9.
"Staso." (For Shoe Laces.) W. E. Ellis Company. No. 24,338; May 9.
"Summer and Winter De Lite Ice Cream Stick That Hits Right." (For an Ice-Cream Stick.) J. P. Morrill. No. 24,355; May 9.
"System Tone." (For a Proprietary Medicine.) C. A. Shand. No. 24,365; May 9.
"The Great T Puzzle." (For Packages Containing Letter Puzzles.) Kirby-Cogeshall Co. No. 24,350; May 9.
"Totem." (For Cigars.) Waitt & Bond, Inc. No. 24,368; May 9.
"Trusco The Superior Lubricating Oil." (For Lubricating Oils.) G. J. Burns. No. 24,331; May 9.
"Ward's Soft Bun Bread." (For Bread.) Ward Baking Company. No. 24,372; May 9.
"W S S Water." (For Mineral Waters.) White Sulphur Springs, Inc. No. 24,373; May 9.
"Yeast O Depilatory." (For a Depilatory.) W. T. Green. No. 24,341; May 9.

ALPHABETICAL LIST OF PRINTS.

"Aunt Molly's Butter Creams." (For Advertising Purposes for Butter Creams.) Milwaukee Paper Box Company. No. 6,111; May 9.
"Bachelor Almond Bar." (For Advertising Purposes for an Almond Bar.) Milwaukee Paper Box Company. No. 6,115; May 9.
"Byron Weston Co. Dalton, Mass. Manufacturers of Linen Ledger and Bond Papers." (For Advertising Purposes for Paper.) Byron Weston Company. No. 6,099; May 9.
"Coco Ridges." (For Advertising Purposes for Chocolate-Covered Coconut Bars.) Milwaukee Paper Box Company. No. 6,116; May 9.
"Dresses That Really Slenderize The Stout Woman." (For Advertising Purposes for Ladies' Dresses.) Baum, Kravat & Baum. No. 6,097; May 9.
"Exclusive Features of Real Silk Fashioned Hosiery." (For Advertising Purposes for Hosiery.) Real Silk Hosiery Mills. No. 6,118; May 9.
"Frigid Freezer." (For Advertising Purposes for Ice-Cream Freezers.) Steinfeld Bros. No. 6,123; May 9.
"Gunz-Durler Candies.' (For Advertising Purposes for Candy.) Milwaukee Paper Box Company. No. 6,114; May 9.
"Homaid Freezer." (For Advertising Purposes for Ice-Cream Freezers.) Steinfeld Bros. No. 6,121; May 9.
"Mamma's Inside Buying My Mennen Talcum. (For Advertising Purposes for Mennen Talcum.) Mennen Company. No. 6,110; May 9.
"Mountain Dew." (For Advertising Purposes for a Furniture Polish.) Bay State Fibre Company. No. 6,098; May 9.
"'Name-Pencils,'" (For Advertising Purposes for Pencils.) A. J. Coleman. No. 6,102; May 9.
"1922 B. V. D. Magazine Ad." (For Advertising Purposes for Athletic Underwear.) B. V. D. Company. No. 6,100; May 9.
"1922 Boys' B. V. D. Magazine Ad." (For Advertising Purposes for Athletic Underwear.) B. V. D. Company. No. 6,101; May 9.
"Oscar Mayer's Approved Meat Products." (For Advertising Purposes for Meat Products of Pork Variety.) Oscar Mayer & Company. No. 6,109; May 9.
"Our Own Oil Liniment." (For Advertising Purposes for Liniments.) J. M. Kappus. No. 6,108; May 9.
"Pan Kor." (For Advertising Purposes for Hollow Concrete Walls.) G. J. Engert. No. 6,105; May 9.
"Pretty Girls Have Always Known the Secret." (For Advertising Purposes for Palmolive Soap.) Palmolive Company. No. 6,117; May 9.
"Roberta Sugar Wafers." (For Advertising Purposes for Sugar Wafers with Cream Filling.) Milwaukee Paper Box Company. No. 6,112; May 9.
"Snow Peak Freezer." (For Advertising Purposes for Ice-Cream Freezers.) Steinfeld Bros. No. 6,122; May 9.
"The Man in The Moon Brings Cheerfulness over Night." (For Advertising Purpose for Laxative Tablets.) J. M. Kappus. No. 6,107; May 9.
"The Original Doctor John Sloan Liniment." (For Advertising Purposes for a Liniment for Use on Man or Beast.) F. C. Wade. No. 6,125; May 9.
"The Pageant Of Time." (For Advertising Purposes for Watches.) Elgin National Watch Company. No. 6,104; May 9.
"The Value of Time." (For Advertising Purposes for Watches.) Elgin National Watch Company. No. 6,103; May 9.
"Therapeutic Traction Couch." (For Advertising Purposes for The Riesland Therapeutic Traction Couch.) D. W. Riesland. Nos. 6,119–20; May 9.
"Uncle Tom's Nigger Toe." (For Advertising Purposes for Chocolate Bars Containing a Niggertoe.) Milwaukee Paper Box Company. No. 6,113; May 9.
"Underwood Soundproof Cabinet." (For Advertising Purposes for Typewriting Machinery.) Underwood Typewriter Company. No. 6,124; May 9.
"Why Millions Eat Them—Heinz Oven Baked Beans." (For Advertising Purposes for Heinz Oven Baked Beans.) H. J. Heinz Co. No. 6,106; May 9.
"XXX." (For Advertising Purposes for Hair Bow Ribbons.) H. Adler & Bro. No. 6,096; May 9.

ALPHABETICAL LIST OF TRADE-MARK TITLES.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Antifat medicines. Mar-Vello Remedies Co. No. 140,627; May 9.
Antiseptic deodorant powder. D. G. Reeder. No. 154,663; May 9.
Aprons. Gillette Rubber Co. No. 154,873; May 9.
Automobile bumpers and parts thereof. Biflex Products Company. No. 152,230; May 9.
Automobiles. Simplex Automobile Company. No. 128,283; May 9.
Babbitt metals, yellow ingot brass, composition or red brass ingots, etc. V. Henning & Sons. No. 158,830; May 9.
Bait, Artificial. O. C. Tuttle. No. 158,954; May 9.
Baking powder. Laird Mfg. Co. No. 157,578; May 9.
Baseball, Parlor. National Game Company. No. 156,293; May 9.
Baseballs, baseball bats and gloves, and foot balls. Buettell Brothers Company. No. 158,848; May 9.
Bath robes, Infants'. Ideal Bath Robe Co. No. 133,736; May 9.
Batteries, Electric. Marvel Battery Co. No. 158,324; May 9.
Beautifier, rouge, shampoo, hair tonic, depilatory, eyebrow pencil. Colonial Dames Beautifier Company. No. 147,411; May 9.
Beer, malt tonic, sirup, and extract, etc., Nonalcoholic near. Val Blatz Brewing Company. No. 142,321; May 9.
Belt dressing. Re-Nu-M Manufacturing Co. No. 157,691; May 9.
Beverage and sirup for making the same, Nonalcoholic. M. Ashcroft. No. 157,401; May 9.
Beverage, Concentrated material brewed from malt and hops suitable for making a malt. New England Brewing Company. No. 154,614; May 9.
Beverage, Nonalcoholic, noncereal maltless. Thomas W. Larkin & Co. No. 143,930; May 9.
Beverage, Nonintoxicating maltless. George Ringler & Co. No. 128,943; May 9.
Beverage sold as a soft drink, Nonalcoholic, maltless. Parkway Bottling Co. No. 158,092; May 9.
Beverages and sirups for making same, Nonalcoholic maltless. Tropical Fruit Juice Company. No. 153,058; May 9.
Beverages and sirups therefor. Jos. Middleby, Jr., Inc. No. 156,748; May 9.
Blood purifier, cleanser, and system builder. Hart-Shaw-Miller Drug Company. Nos. 157,668–9; May 9.
Bolts. Automatic Bearing Co. No. 153,029; May 9.
Books and catalogues, Lesson. National Poultry Institute, Inc. No. 154,319; May 9.
Books, pamphlets, and circulars devoted to photoplay instruction, etc. Palmer Photoplay Corporation. No. 133,490; May 9.
Boots and shoes, Women's. Gregory & Read Company. No. 158,573; May 9.
Boots, shoes, and leggings, Leather. W. Myall. No. 148,230; May 9.
Bottle caps. Chemische Fabrik von Heyden, Aktiengesellschaft. No. 152,955; May 9.
Bread. Ward Baking Company. No. 153,630; May 9.
Bread. D. P. Woolley. No. 153,277; May 9.
Brooms. Rich & France. No. 145,287; May 9.
Brushes. Wooster Brush Company. No. 146,605; May 9.
Cabinets, Medicine. Hess Warming & Ventilating Company. No. 156,002; May 9.
Cambrics in the piece. Berkeley Company. No. 156,881; May 9.
Candies. Heidelberger Confectionery Co. No. 156,689; May 9.
Caps, Men's and boy's. Town Talk Manufacturing Co. No. 154,393; May 9.
Carbon remover. Solveno Chemical Co. No. 152,041; May 9.
Catalogue. Shapleigh Hardware Company. No. 157,048; May 9.
Cheese. R. H. Vollmer. No. 155,374; May 9.
Chemical substances used for the treatment of coughs and colds in horses and husk in cattle. W. G. Asquith. No. 144,996; May 9.
Cigarettes. J. Garbáty-Rosenthal, Zigarettenfabrik J. Garbáty, Berlin-Pankow. No. 147,920; May 9.
Cigarettes. G. Pappanicolaou. No. 157,731; May 9.
Cigars. Geo. Fehl Blue Ribbon Cigar Co. No. 114,670; May 9.
Cigars. T. G. Greanias. No. 158,306; May 9.
Cigars. J. H. Masterman. No. 153,516; May 9.
Cigars and chewing tobacco. D. C. Glasser Tobacco Company. No. 156,788; May 9.
Cigars and cigarettes. L. Berberian. No. 152,696; May 9.
Cigars, cigarettes, etc. J. Garbáty-Rosenthal, Zigarettenfabrik J. Garbáty, Berlin-Pankow. Nos. 147,915–19; May 9.
Cigars, cigarettes, etc. J. Garbáty-Rosenthal, Zigarettenfabrik J. Garbáty, Berlin-Pankow. Nos. 147,921–2; May 9.
Cigars, cigarettes, snuff, etc. Wigwam Retail Stores Company. No. 154,948; May 9.
Cigars, Little. I. Aaron. No. 149,312; May 9.
Cleaning and polishing materials for jewelry, metal ware, etc. Ovington Bros. Company. No. 142,405; May 9.
Cleaning compound. A. Nehring & Sons Co. No. 155,110; May 9.
Cleansers, toilet and laundry soaps. Jennings-Sherry Company. No. 158,125; May 9.
Clothing and wearing apparel for men, women, and children. Ambco, Inc. No. 147,081; May 9.
Clothing for outer wear, Men's. R. B. Clothing Company. No. 155,032; May 9.
Clothing, Men's and young men's. M. Frank Sons & Company. No. 153,134; May 9.
Coats, vests, and pants, Men's. Rosenberg Bros. & Co. No. 155,322; May 9.
Coffee. Brazilian Coffee House, Inc. No. 156,880; May 9.
Coloring and conserving means for leather, iron, and wood. Chromol Manufactory of Chemical Products, Inc. No. 138,847; May 9.
Cookies, Dietary. W. O. Backus. No. 153,330; May 9.
Corset waists, brassières, bandeaux, etc. American Lady Corset Co. No. 149,534; May 9.
Corsets. George C. Batcheller & Co. Nos. 154,582–3; May 9.
Corundum, emery, and silicon carbide. General Abrasive Co. No. 155,224; May 9.
Cosmetics for promoting the growth of human hair. Aktiengesellschaft für Chemische Produkte vormals H. Scheidemandel. No. 136,659; May 9.
Cotton piece goods. Amoskeag Manufacturing Company. No. 142,822; May 9.
Cotton piece goods. Cohn-Hall-Marx Co. No. 157,358; May 9.
Cotton piece goods. Motor Sundour Fabrics Ltd. No. 156,696; May 9.
Cotton piece goods. Passaic Print Works. No. 156,406; May 9.
Cotton piece goods. Passaic Print Works. No. 156,409; May 9.
Curtain rods. Newell Mfg. Co. No. 160,773; May 9.
Dentifrices. Pepsodent Company. No. 157,532; May 9.
Depilatories. W. J. Ferguson. No. 142,286; May 9.
Disinfectants, insecticide, and deodorant. Furman Company. No. 155,399; May 9.
Dresses for ladies and girls. Herman Weiss Co. No. 154,676; May 9.
Dresses, rompers, creepers, and suits, Children's. Rosenau Bros., Inc. No. 152,653; May 9.
Electric heating elements, Substance for mending burned-out. Carricite Company. No. 156,186; May 9.
Electric household appliances. George Borgfeldt & Co. No. 157,472; May 9.
Electric lighting sets for Christmas trees. Peerless Light Company. No. 156,853; May 9.
Electrical condensers. Wireless Specialty Apparatus Company. No. 158,693; May 9.
Electrical conducting bodies. Gebrüder Siemens & Company. No. 136,314; May 9.
Electrolyte compound for batteries. Electrogene Chemical Co. No. 156,267; May 9.
Embrocations. Mucine Products Company. No. 147,673; May 9.
Fabrics, mixed fabrics, and embroideries. Heberlein & Co. A. G. No. 155,887; May 9.
Finger rings, brooches, hairpins, lavallières, and scarf-pins. D. D. Brokaw & Son. No. 154,479; May 9.
Fire hydrants. W. Wood. No. 156,769; May 9.
Fire hydrants, indicator posts, gate valves, etc. Kennedy Valve Mfg. Co. No. 156,087; May 9.
Flour, Prepared. Hecker-Jones-Jewell Milling Company. No. 150,450; May 9.
Flour, Wheat. Omaha Flour Mills Co. No. 154,886; May 9.
Fur coats, wraps, capes, and neck pieces. Hudson Seal Co. No. 155,260; May 9.
Furnaces for heating buildings. Green Foundry & Furnace Works. No. 156,488; May 9.
Fuses. Economy Fuse and Manufacturing Co. No. 156,784; May 9.
Game, Arithmetical card. Teddy Multiplication Game Company. No. 157,859; May 9.
Game, Parlor board. J. B. Ludlow. No. 155,101; May 9.
Games, Board. L. B. Beresford. No. 140,775; May 9.
Games, Card. Parker Brothers. No. 157,232; May 9.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Garters. Star Suspender Co. No. 156,035; May 9.
Garters. R. M. Whitman. No. 154,542; May 9.
Garters, Children's and misses'. American Wholesale Corporation (Baltimore Bargain House). No. 155,293; May 9.
Garters, Children's and misses'. American Wholesale Corporation (Baltimore Bargain House). No. 155,296; May 9.
Ginger ale. Peninsula Products Company. No. 137,268; May 9.
Ginger ale and ginger-ale extract. James Vernor Company. No. 158,023; May 9.
Ginger ale and sirup for making the same. W. J. Gibson. No. 157,420; May 9.
Gland mixtures and preparations. A. O. McMichael. No. 155,064; May 9.
Gramophone needles. H. J. Wenglein's Norica- & Herold-Werke Nurnberg-Schwabacher Nadelfabriken G. m. b. H. No. 138,182; May 9.
Haberdashery, Men's, young men's, and boys'. Wentworth Clothing Company. No. 152,153; May 9.
Hair invigorator and tonic. A. E. Hyatt. No. 158,392; May 9.
Hair tonic. S. Caporale. No. 156,146; May 9.
Hairpins and safety pins. Muller and Phipps (Asia) Limited. No. 134,138; May 9.
Hats and hat frames, Ladies' trimmed and untrimmed. I. Tannenbaum. No. 148,025; May 9.
Hats, Ladies'. M. Saltzman. No. 154,934; May 9.
Hose supporters, arm bands, and garters. I. Goldberg. No. 151,944; May 9.
Hosiery. G. H. Leininger. No. 154,371; May 9.
Hosiery. Rice-Stix Dry Goods Company. No. 154,662; May 9.
Hosiery. Children's. W. T. Grant Co. No. 155,167; May 9.
Ice cream. C. G. Carlson Ice Cream Company. No. 156,261; May 9.
Insecticide, Powder. W. C. Davey. No. 157,516; May 9.
Irons, grills, toasters, stoves, etc., Electric smoothing. National Stamping & Electric Works. No. 158,248; May 9.
Knit jackets. Century Knitting Mills. No. 154,959; May 9.
Laces, Shoe. Diamond Braiding Mills. No. 155,162; May 9.
Lamp sockets, lamp-cover sockets and plugs, Electric. Harter Mfg. Company. No. 145,264; May 9.
Lamps, Incandescent electric. Bettalyte Incandescent Lamp Co. No. 159,339; May 9.
Lamps, Incandescent electric. Westinghouse Lamp Company. No. 144,493; May 9.
Liniment. Rossville Company. No. 150,409; May 9.
Liniment for open wounds, bruises, etc. G. E. Murry. No. 154,232; May 9.
Lotions. R. H. Macy and Co. No. 157,496; May 9.
Magazine. G. B. Monk. No. 156,695; May 9.
Maps, atlases, miscellaneous books, magazines, etc. Rand McNally and Company. No. 149,246; May 9.
Massage preparation, also a preparation for a hair tonic and skin lotion. C. A. Stuart. No. 138,928; May 9.
Mattresses. A. T. Reynolds. No. 143,293; May 9.
Medicinal food product. Phytamin Corporation. Nos. 157,171–2; May 9.
Medicinal preparation. F. M. Scruton. No. 157,453; May 9.
Medicinal preparation for catarrh, etc. Dunlap Medicine Co. No. 156,623; May 9.
Medicinal preparation for treatment of constipation, rheumatism, etc. F. X. Mantsion. No. 157,722; May 9.
Medicinal preparation used for the reduction of inflammations. R. S. Clark. No. 153,924; May 9.
Medicine for cows. Dairy Association Co. No. 155,997; May 9.
Medicine for the treatment of biliousness, headache, etc. Purabrand Products Co. No. 156,463; May 9.
Medicine, Liver. C. D. Abshear. No. 157,246; May 9.
Medicine used in the treatment of syphilis. Hydrarginol Company. No. 150,533; May 9.
Medicines for medicinal treatment of sore gums, toothache, etc. J. E. Marriott. No. 155,414; May 9.
Metal precipitants, Noble-. American Chemical Works. No. 157,204; May 9.
Milk, Evaporated. Crown Margarin Company. No. 156,825; May 9.
Milk, Fermented. Fairchild Bros. & Foster. No. 156,364; May 9.
Music, Sheet. M. Witmark & Sons. No. 156,871; May 9.
Musical-instrument strings, violins, violas, cellos, etc. J. Schwartz. No. 158,405; May 9.
Nails, Horseshoe. Capewell Horse Nail Company. Nos. 159,496–7; May 9.
Newspaper articles and circulars issued from time to time, Humorous. E. Callow. No. 156,518; May 9.
Newspaper section. Evening News Association. No. 156,785; May 9.
Oil, Olive. R. Martorelli. No. 152,269; May 9.
Oil, Olive. G. Rossano & Bro. No. 154,531; May 9.
Oil, Olive. Southern Olive Oil Co. No. 156,932; May 9.
Oranges, grapefruit, and tangerines, Fresh. R. H. Rice. No. 154,326; May 9.
Overalls, jackets, and vests, work shirts, etc. J. A. Lamy Mfg. Co. No. 153,045; May 9.
Packing, Fluid-tight. Mason Packing Company. No. 155,413; May 9.
Paint for coating glass, Waterproof. J. Walsh. No. 158,960; May 9.
Paints, Dry, paste, and ready-mixed. Industrial Paint Company. No. 158,981; May 9.
Pamphlets, booklets, or leaflets, Series of. Philadelphia Quartz Company. No. 155,633; May 9.
Pamphlets, books, circulars, prints, drawings, etc. International Federation of Technical Engineers', Architects', and Draftsmen's Unions. No. 126,803; May 9.
Paper and typewriter ribbons, Carbon. Kee Lox Manufacturing Company. No. 153,301; May 9.
Paper, Carbon. Kee Lox Manufacturing Company. No. 153,295; May 9.
Paper, Carbon. Kee Lox Manufacturing Company. No. 153,298; May 9.
Paper, Carbon. Kee Lox Manufacturing Company. No. 153,304; May 9.
Paper, Toilet. Jos. Weil & Sons, Inc. No. 159,738; May 9.
Paper towels and a piece of soap, Package containing. F. H. Chatfield. No. 151,660; May 9.
Paper, writing tablets, papeteries, etc., Writing and printing. Powers Paper Company. No. 157,953; May 9.
Perfume extract and toilet water. Houbigant, Inc. No. 157,571; May 9.
Perfumes. R. Eyben. No. 157,479; May 9.
Perfumes, toilet water, toilet powders, rouges, etc. C. Nieto de Herrera e Hijos. No. 156,217; May 9.
Perfumery. L. Herrgott. Nos. 138,908–9; May 9.
Petrolatum combined with antiseptic and germicidal ingredients for constipation. Blanding and Blanding, Inc. No. 157,709; May 9.
Pharmaceutical preparation for promoting the growth of hair. H. Cohrs. No. 156,214; May 9.
Pharmaceutical products especially for asthma. Dr. Kade's Medizinisch-Pharmazeutisches Fabrikations- & Exportgeschaft Dr. Franz Lutze. No. 150,755; May 9
Phosphorus. La Societe des Produits Chimiques Coignet. No. 157,323; May 9.
Photographic reproductions for use in printing, Metal plates carrying. R. John. No. 158,187; May 9.
Piano players, automatic player pianos, grand and upright pianos, etc. Ludwig Hupfeld Aktiengeselischaft. No. 143,377; May 9.
Poison, Rat, mice, and squirrel. B. B. Reilly. No. 157,177; May 9.
Polish, Furniture. Lustrex Products Co. No. 158,133; May 9.
Poultry and eggs, Dressed. C. C. Wright. No. 155,466; May 9.
Powder puffs, face brushes, etc. V. Vivaudou, Inc. No. 158,959; May 9.
Powders and compacts, Toilet. A. Bourjois & Co. No. 155,799; May 9.
Powders, rouge, face cream, etc., Face and talcum. R. A. Schirmer. No. 152,040; May 9.
Preparation for removing dirt and stains from the hands, etc. J. E. R. Hasbrouck. No. 154,511; May 9.
Preparation for stomach and heart trouble, acute indigestion, etc., Liquid. H. Harden. No. 154,743; May 9.
Preparation for the removal of superfluous hair. A. J. Richardson. No. 153,693; May 9.
Preparation for the scalp used as a tonic and for promoting the growth of hair. M. L. Whitfield. No. 152,293; May 9.
Preparation for the treatment of coughs and colds. G. I. Branower. No. 154,427; May 9.
Preparations for the treatment of diseases of the liver. Cholsanin A. G. No. 150,802; May 9.
Preparation for treating and relieving pain to the gums, Liquid. B. L. Palleyesch. No. 155,417; May 9.
Preparation for treatment of bots, colic, distemper, etc. D. S. Wilson. No. 156,509; May 9.
Preparation in the treatment of rheumatism, neuralgia, etc. C. H. Matson. No. 154,233; May 9.
Publication for dressmakers' use. Designer Publishing Company. No. 155,809; May 9.
Razors and blades, combination tools, Safety. Hamburger Factories Inc. No. 157,424; May 9.
Razors and scissors. Adolph Kastor & Bros. No. 159,972; May 9.
Reflectors for preventing glare for electric headlights. Way-Lite Reflector Company. No. 158,347; May 9.
Roach powder and scale solvent. Sanozone Chemical Co. No. 140,807; May 9.
Rubber boots and shoes. Lacross Rubber Mills Co. No. 154,655; May 9.
Rubber composition for making various articles. Oliver Sherwood Co. No. 158,690; May 9.
Rubber preservative. Rubber Process Corporation. No. 157,588; May 9.
Rubber soles and heels. Manhattan Rubber Mfg. Co. No. 159,168; May 9.
Salt. Independent Salt Company. No. 157,318; May 9.
Salt. International Salt Co. of New York. No. 156,692; May 9.
Salve. Heal-O Products Co. No. 156,277; May 9.

Salve for use in treatment of colds, coughs, influenza, burns, etc. Park Laboratory Company. No. 142,268; May 9.
Shampoo compound. Concentrated Products Corporation. No. 155,736; May 9.
Shade rollers. Interstate Shade Cloth Co. No. 161,436; May 9.
Shampoo. Olive-oil. White-Dove Laboratories. No. 155,287; May 9.
Shirts, Men's and boys' negligee and work. Sigmund Eisner Company. No. 142,334; May 9.
Shirts, Work. Reliance Manufacturing Company. No. 153,952; May 9.
Shoe plates. F. Hachmann. No. 151,874; May 9.
Shoe plates. Universal Shoe Plate Company. No. 156,034; May 9.
Shoes. Julian & Kokenge Co. No. 142,216; May 9.
Shoes and boots. Churchill & Alden Co. No. 147,913; May 9.
Shoes and leather, Compound for preserving and waterproofing. Penn Leather Preserving Co. No. 158,947; May 9.
Silks. Aaron-Fleischer Silk Co. No. 130,254; May 9.
Sirup, Malt extract. J. Macauley. No. 151,326; May 9.
Sirups for beverages, Flavoring. Hurty-Peck & Co. No. 158,525; May 9.
Skiis. S. M. Chase. No. 158,468; May 9.
Soap. M. Bailly. No. 152,782; May 9.
Soap. H. Kohnstamm & Co. No. 157,929; May 9.
Soap. Medicraft Company. No. 154,373; May 9.
Soap. Taylor and Atkinson. No. 124,556; May 9.
Soap. W. & H. Walker, Inc. No. 159,133; May 9.
Soap, Antirheumatic medicated. Seven Spas Soap Proprietary Coy., Limited. No. 149,153; May 9.
Soap, Toilet. George Borgfeldt & Co. No. 155,013; May 9.
Soap, Toilet. Life Saver Soap Works of America. No. 153,306; May 9.
Soaps. Colgate Co. No. 145,549; May 9.
Soaps. A. Papazian. No. 158,141; May 9.
Soaps and oil-soap cleanser, Green, potash, base, etc. Davies-Young Soap Company. No. 158,604; May 9.
Soaps, shaving creams, etc. V. Vivaudou, Inc. No. 157,782; May 9.
Spark plugs. Patten Manufacturing Company. No. 156,749; May 9.
Statements, auditors' reports, and bulletins. Audit Bureau of Circulations. No. 157,403; May 9.
Steel-hardening solutions. W. A. Beckwith. No. 155,855; May 9.
Sugar for beer coloring and flavoring, Body. Klatscher & Lorenz, Inc. No. 134,960; May 9.
Suppositories, antiseptic ointments, general tonics, etc., Vaginal. Woman's Mutual Benefit Company. No. 154,856; May 9.
Sweaters, bathing suits, knitted jackets, etc. Crescent Company. No. 154,790; May 9.
Table, bed, and toilet articles for children's dolls, Miniature. E. E. Willson. No. 137,900; May 9.
Tables, chairs, stands, desks, tea wagons, stools, etc. Ovington Bros. Company. No. 142,399; May 9.
Tablets for the treatment of anemia, malnutrition, etc. Raisin Products Co. of America. Nos. 157,732–3; May 9.
Tablets, Laxative. E. Loesch. No. 157,227; May 9.
Talking machines, talking-machine parts, records, and needles. H. S. Berliner. No. 154,430; May 9.
Thymol, menthol, essential oils suitable for production of perfumes, etc. Julian W. Lyon & Co. No. 157,321; May 9.
Tire chains, Automobile. Off'N'On Chain Corporation. No. 159,282; May 9.
Tires, Rubber. Bergougnan Rubber Corporation. No. 159,135; May 9.
Tires, Tubes for pneumatic. Funsten Brothers & Company. No. 155,305; May 9.
Toilet preparation for the hair and scalp, Medicated. Conner and Walters Company. No. 157,474; May 9.
Toilet preparations. D. Jaquet. No. 151,989; May 9.
Toilet preparations. C. C. Oliver. No. 154,283; May 9.
Toilet preparations. Williams & Frederick, Inc. No. 157,290; May 9.
Tonic and laxative, poultry tonic, etc., Stock-vigor. Dr. Smith's Stock-Vigor Remedies Company. No. 157,283; May 9.
Tonic for medicinal purposes, General. E. Barnett. No. 162,097; May 9.
Tonic for poultry, pigeons, and turkeys, General. Nu-Life Company. No. 152,089; May 9.
Tooth paste. J. J. Blackman. No. 157,296; May 9.
Tops. Whip-O-Top Company. No. 158,739; May 9.
Toy air guns. Goblintoy Company. No. 158,771; May 9.
Toy blocks. J. Srofe. No. 144,204; May 9.
Toy gunboat on wheels. W. C. Stanke. No. 143,795; May 9.
Toy motor trucks, steam shovels, and derricks. Moline Pressed Steel Co. No. 156,167; May 9.
Traffic markers, Illuminated. Electrical & Specialty Supply Co. No. 157,267; May 9.
Underwear for women. Scheinzeit-Goldman Co. No. 154,619; May 9.
Valve handles or wheels. Jenkins Manufacturing Company. No. 157,429; May 9.
Valves, Relief. Neptune Meter Company. No. 160,771; May 9.
Varnishes, varnish stains, paint enamels, and paints. Valentine & Company. No. 158,658; May 9.
Veneer for linings for closets, chests, etc., Sheets and strips of. E. L. Bruce Company. No. 156,883; May 9.
Veterinary oil liniment for the treatment of open sores. Kunkel & Kunkel. No. 134,475; May 9.
Washing compound. Barrington Manufacturing Corporation. No. 157,471; May 9.
Washing compounds. S. Bernstein. No. 157,597; May 9.
Washing powder. Rolly Chemical Co. No. 158,148; May 9.
Watches. P. Forbriger. No. 155,055; May 9.
Watches. I. Press & Sons. No. 145,229; May 9.
Windshield cleaners. C. A. Edwardsen. No. 155,164; May 9.
Wine tonic, Medicated. Bonovin, Limited. No. 138,836; May 9.
Wines, Champagne. Walbaum, Goulden & Co. No. 154,342; May 9.
Wireless apparatus. Air-O-Phone Corporation. No. 159,777; May 9.

CLASSIFICATION OF PATENTS

ISSUED MAY 9, 1922.

NOTE.—First number=class, second number=subclass, third number=patent number.

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65: 1,415,094
101: 1,415,021
76— 1: 1,415,121
77— 58: 1,415,590
75: 1,415,121
78— 1: 1,415,459
81— 3: 1,415,440
15: 1,415,659
32: 1,415,103
60: 1,415,731
66: 1,415,772
72: 1,415,734
119: 1,415,826
126: 1,415,714
82— 2: 1,415,228
4: 1,415,039
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32: 1,415,227
83— 8: 1,415,808
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44: 1,415,319
60: 1,415,575
1,415,598
79: 1,415,428
85: 1,415,105
1,415,314
84— 162: 1,415,579
224: 1,415,574
372: 1,415,665
386: 1,415,051
85— 1: 1,415,726
87— 5: 1,415,605
6: 1,415,433
47: 1,415,612
88— 14: 1,415,627
17: 1,415,494
18.7: 1,415,131
39: 1,415,511
44: 1,415,599
54: 1,415,318
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89— 28: 1,415,044
90— 12: 1,415,048
20: 1,415,530
24.3: 1,415,211
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60: 1,415,787
91— 12.6: 1,415,166
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18: 1,415,312
93— 1: 1,415,507
2: 1,415,038
81: 1,415,566
95— 1.1: 1,415,514
73: 1,415,230
97— 10: 1,415,637
44: 1,415,638
54: 1,415,311
62: 1,415,663
92: 1,415,674
98— 3: 1,415,500
26: 1,415,816
99— 2: 1,415,851
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10: 1,415,469
11: 1,415,137
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1,415,715
100— 44: 1,415,611
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101— 237: 1,415,210
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102— 3: 1,415,614
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103— 8: 1,415,162
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92: 1,415,647
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104— 23: 1,415,190
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105— 4: 1,415,357
79: 1,415,419
106: 1,415,083
250: 1,415,097
410: 1,415,022
106— 13: 1,415,076
24: 1,415,324
37: 1,415,059
39: 1,415,850
108— 7: 1,415,175
8: R. 15,352
110— 58: 1,415,607
112— 114: 1,415,426
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255: 1,415,250
113— 38: 1,415,838
114— 53: 1,415,532
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145: 1,415,705
116— 33: 1,415,081
45: 1,415,538
46: 1,415,814
52: 1,415,817
54: 1,415,362
106: 1,415,207
119: 1,415,631
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118— 6: 1,415,069
61: 1,415,070
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119— 19: 1,415,397
44: 1,415,732
52: 1,415,376
75: 1,415,264
81: 1,415,178
147: 1,415,117
120— 24: 1,415,642
41: 1,415,088
42: 1,415,718
121— 93: 1,415,393
125: 1,415,697
122— 20: 1,415,432
123— 66: 1,415,481
75: 1,415,096
78: 1,415,025
90: 1,415,167
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119: 1,415,060
122: 1,415,086
148: 1,415,581
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177: 1,415,793
187.5: 1,415,548
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126— 39: 1,415,049
52: 1,415,576
53: 1,415,527
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121: 1,415,345
236: 1,415,098
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344: 1,415,343
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18: 1,415,818

128— 12: 1,415,347
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254: 1,415,784
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34: 1,415,212
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24: 1,415,666
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132— 54: 1,415,729
91: 1,415,765
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21: 1,415,363
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45: 1,415,282
50: 1,415,127
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58: 1,415,391
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67: 1,415,286
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144— 32: 1,415,687
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70: 1,415,790
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259: 1,415,144
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78: 1,415,502
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60: 1,415,099
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93: 1,415,020
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166— 1: 1,415,551
10: 1,415,586
19: 1,415,417
21: 1,415,552
169 - 31: 1,415,717
39: 1,415,677
170 - 20: 1,415,645
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171 - 23: 1,415,779
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223: 1,415,012
323: 1,415,577
172 - 36: 1,415,564
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175— 311: R. 15,351
361: 1,415,321
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367: 1,415,723
177— 7: 1,415,256
31: 1,415,820
352: 1,415,539
178— 22: 1,415,106
88: 1,415,382
179 - 18: 1,415,648
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37: 1,415,773
48: 1,415,418
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105: 1,415,124
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188— 46: 1,415,132
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192 - 52: 1,415,150
66: 1,415,690
69: 1,415,841
116: 1,415,270
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1,415,477
193- 29: 1,415,410
1,415,411
197— 32: 1,415,702
196- 4: 1,415,056
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25: 1,415,058
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197— 69: 1,415,031
82: 1,415,558
91: 1,415,138
96: 1,415,032
102: 1,415,029
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138: 1,415,455
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177: 1,415,688
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80: 1,415,112
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138: 1,415,050
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150: 1,415,114
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204— 5: 1,415,166
29: 1,415,139
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38: 1,415,033
54: 1,415,832
58: 1,415,186
64: 1,415,036
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206— 39: 1,415,276
56: 1,415,621
208— 158: 1,415,259
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211— 8: 1,415,170
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13: 1,415,747
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18: 1,415,242
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33: 1,415,722
212 - 17: 1,415,163
213— 42: 1,415,463
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67: 1,415,024
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105: 1,415,223
135: 1,415,561
215 14: 1,415,741
80: 1,415,257
217— 2: 1,415,368
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60: R. 15,350
61: 1,415,388
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6: 1,415,848
8: 1,415,774
10: 1,415,524
15: 1,415,565
21: 1,415,479
34: 1,415,770
37: 1,415,550
38: 1,415,656
1,415,015
1,415,184
43: 1,415,660
47: 1,415,456
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48: 1,415,748
55: 1,415,534
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220— 31: 1,415,148
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221 — 79: 1,415,218
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225 - 30: 1,415,185
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82: 1,415,618
228 31: 1,415,791
49: 1,415,699
58: 1,415,739
229— 2.5: 1,415,100
7: 1,415,543
54: 1,415,450
230 13: 1,415,406
1,415,467
14: 1,415,828
27: 1,415,725
1,415,852
32: 1,415,047
232 4: 1,415,168
241 - 1: 1,415,306
5.5: 1,415,499
1,415,528
26.5: 1,415,624
235 58: 1,415,125
61.5: 1,415,601
86: 1,415,297
91: 1,415,498
144: 1,415,174
236— 42: 1,415,584
72: 1,415,249
238— 20: 1,415,742
60: 1,415,672
63: 1,415,802
165: 1,415,336
219: 1,415,545
260: 1,415,487
330: 1,415,743
1,415,744
240 — 1: 1,415,065
2: 1,415,254
1,415,453
1,415,771
4: 1,415,041
7: 1,415,409
1,415,465
1,415,595
11: 1,415,685
29: 1,415,634
38: 1,415,633
41: 1,415,373
44: 1,415,555

240— 48.4: 1,415,236
54: 1,415,087
62: 1,415,243
108: 1,415,136
241 - 1: 1,415,030
242 - 7: 1,415,709
9: 1,415,644
71: 1,415,042
77: 1,415,678
244 — 2: 1,415,847
14: 1,415,333
15: 1,415,754
29: 1,415,052
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246— 71: 1,415,214
170: 1,415,405
487: 1,415,813
248— 3: 1,415,145
1,415,602
250 - 13: 1,415,179
20: 1,415,845
41: 1,415,220
1,415,843
252 - 1,415,849
253 - 55: 1,415,298
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77: 1,415,266
78: 1,415,571
199: 1,415,585
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254 — 82: 1,415,089
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131: 1,415,055
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255— 63: 1,415,619
259 4: 1,415,830
39: 1,415,146
102: 1,415,735
107: 1,415,679
144: 1,415,334
260— 6: 1,415,168
10: 1,415,023
34: 1,415,700
84: 1,415,704
261 - 41: 1,415,423
263 — 9: 1,415,553
34: 1,415,424
36: 1,415,107
46: 1,415,622
1,415,630
264— 13: 1,415,079
265— 15: 1,415,101
49: 1,415,508
266— 2: 1,415,414
7: 1,415,589

267 - 17: 1,415,799
268 - 22: 1,415,567
273— 1,415,721
274— 27: 1,415,361
29: 1,415,360
275— 2: 1,415,643
279— 35: 1,415,720
56: 1,415,119
280— 33.1: 1,415,008
150: 1,415,295
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283— 47: 1,415,396
56: 1,415,596
285— 22: 1,415,788
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287— 53: 1,415,542
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290 - 30: 1,415,159
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293 - 34: 1,415,518
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55: 1,415,569
294— 42: 1,415,196
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296— 63: 1,415,269
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98: 1,415,377
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137: 1,415,794
140: 1,415,441
299— 115: 1,415,524
118: 1,415,452
306— 21: 1,415,657
301 - 10: 1,415,604
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33: 1,415,670
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39: 1,415,402
52: 1,415,279
63: 1,415,288
1,415,427
128: 1,415,356
303— 6: 1,415,821
68: 1,415,173

ALPHABETICAL LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 16TH DAY OF MAY, 1922.

NOTE.—Arranged in accordance with the first significant character or word of the name. (In accordance with city and telephone directory practice.)

Abramson, Louis A., New York, N. Y. Closure for doorways. No. 1,415,854; May 16.
Ace Magneto Company. (See Putt, Harlie O., assignor.)
Acheson Graphite Company. (See Mardick, John R., assignor.)
Ackerman, Charles N., Chicago, Ill., assignor to Ackerman-Johnson Co. Screw-holding anchor. No. 1,416,433; May 16.
Ackerman-Johnson Co. (See Ackerman, Charles N., assignor.)
Acme Die Casting Corporation. (See Bungay, George W., assignor.)
Actien Gesellschaft für Anilin Fabrikation. (See Dedichen, Jens, assignor.)
Actien Gesellschaft für Anilin Fabrikation. (See Kaltwasser, O., and Oehrn.)
Adam, Henri V., Djocoja, Java. Automatic weighing machine. No. 1,416,312; May 16.
Adams, Thomas M., Houston, Tex. Pump plunger. No. 1,415,911; May 16.
Adee, William F., Chicago, Ill. Method and apparatus for producing moving-picture cartoons. No. 1,416,154; May 16.
Ahola, Charles, Detroit, Mich. Ship construction. No. 1,416,155; May 16.
Aktiebolaget Svenska Kullagerfabriken. (See Wingquist, Sven G., assignor.)
Aladdin Renew Electric Lamp Corporation Limited. (See Harrison, Francis, assignor.)
Alastic Tire Cushion Company. (See Krauska, Thomas, assignor.)
Albrecht, John H., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Motor-control system. No. 1,415,971; May 16.
Albright, George A., Atlanta, Ga. Clock-circuit-control device. No. 1,416,592; May 16.
Alexander, Arthur, Brooklyn, N. Y. Game apparatus. No. 1,416,593; May 16.
Allen, Charles H., Chicago, Ill. Headlight. No. 1,416,434; May 16.
Allen, Charles R., Ashtabula, Ohio. Fastening device for vehicle tops. No. 1,416,435; May 16.
Allen, Roy M., Bloomfield, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Electrical switching device. No. 1,415,972; May 16.
Allen, Roy M., Bloomfield, and Paul Neill, East Orange, N. J., assignors to Western Electric Company, Incorporated, New York, N. Y. Compensator. No. 1,415,973; May 16.
Allen, Scott E., Los Angeles, Calif. Accelerator for water-cooled machines. No. 1,415,974; May 16.
Althouse, Charles F., Reading, Pa., assignor to L. Muther, Newton, Mass. Combined guide and work-holding device for folding machines. No. 1,416,660; May 16.
American Chain Company. (See Conner, Edward A., assignor.)
American Chain Company. (See Loder, Howard W., assignor.)
American Chain Company. (See Reyburn, John R., assignor.)
American Engineering Company. (See Bryant Everett B., assignor.)
American Laundry Machinery Company, The. (See Prestwich, Sydney, assignor.)
American Metal Company, The. (See Arstens, Alexander B., assignor.)
American Metal Furniture Company. (See Miner, Joseph A., assignor.)
American Radium Company. (See Cuntz, Hermann F., assignor.)
American Smelting and Refining Company. (See Wagstaff, Richard A., assignor.)
American Steam Conveyor Corporation. (See Griffin, Lorne A., assignor.)
American Stove Company. (See Munzer, Charles, assignor.)
American Stove Company. (See Nicolaus, Frederic G., assignor.)
American Telephone and Telegraph Company. (See Darrow, Leo H., assignor.)
American Telephone and Telegraph Company. (See Thompson, George K., assignor.)
Amiard, Pierre J. R. (See Quiry, Alfred G., assignor.)
Anderson, Charles W., Brooklyn, N. Y. Hod elevator. No. 1,416,395; May 16.
Anderson, Emil, Brooklyn, N. Y., assignor to The Universal Turbine Company, Newark, N. J. Condenser pump. No. 1,415,975; May 16.
Anderson, George A. (See Pierce, R. H., and Anderson.)
Anderson, Mike E., Clarksville, Ark. Photographic-tray rocker. No. 1,416,396; May 16.
Anderson, Nels B., and J. A. Berg, Astoria, Oreg., assignors of one-half to Seattle-Astoria Iron Works, Seattle, Wash. Can salter. No. 1,416,156; May 16.
Anderson, Per M., Hartford, Conn. Work holder. No. 1,415,855; May 16.
Andes, Eugene B., Lancaster, Pa. Firearm. No. 1,415,976; May 16.
Andrick, Wallace P., Hohokus, and J. F. Dahl, East Orange, N. J., assignors to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,415,853; May 16.
Armstrong, Edwin H. (See Pupin, M. I., and Armstrong.)
Armstrong, Percy A. E., Loudonville, N. Y. Electrical heating element. No. 1,416,436; May 16.
Arrow Grip Manufacturing Co. (See Avery, True M., assignor.)
Asbury, Dorsey F., Washington, D. C. Breech mechanism. No. 1,415,856; May 16.
Asbury, Dorsey F., Washington, D. C. Breech mechanism. No. 1,415,912; May 16.
Ashby, Shirley C., Jr. (See Bartos, Frank, assignor.)
A/S Perkussion. (See Bröndby, Fridtjof N., assignor.)
A/S Separator. (See Holte, Halvor, assignor.)
Astbury, Thomas, assignor to J. Dexter, New Bedford, Mass. Condenser-apron lubricator. No. 1,416,313; May 16.
Astronomical Clock Manufacturing Company. (See Bulka, Michael, assignor.)
Atherton, Albert, New Brunswick, N. J., assignor to The Western Union Telegraph Company, New York, N. Y. Call-box transmitter. No. 1,416,594; May 16.
Atkins, Charles H., Palmer, Mass. Pressure pump. No. 1,416,314; May 16.
Atwood, Edwin W. (See Copeman, Lloyd G., assignor.)
Auberlin, William, Northfield, Ohio. Artificial bait. No. 1,415,913; May 16.
August Knoche-Wallwitz, G. m. b. H. (See Plaut, Menko, assignor.)
Austin Manufacturing Co. (See Liddell, Moses V., assignor.)
Automatic Electric Brake Company. (See Farmer, Robert Z., assignor.)
Automatic Electric Brake Company. (See Farmer, R. Z., and Marsh, assignors.)
Automatic Electric Company. (See Groh, Bernard C., assignor.)
Avery, True M., assignor to Arrow Grip Manufacturing Co., Inc., Glens Falls, N. Y. Roller-base lifting jack. No. 1,415,857; May 16.
Babcock & Wilcox Company, The. (See Jacobus, David S., assignor.)
Backman, Herman, assignor to Variety Manufacturing Company, Chicago, Ill. Fire door, safety gate, and the like. No. 1,415,977; May 16.
Badger Manufacturing Corporation. (See Hathaway, Charles H., assignor.)
Baer, Richard, and H. Kopp, New York, N. Y. Locking device for motor vehicles. (Reissue.) No. 15,353; May 16.
Bailey, James, assignor to Corning Glass Works, Corning, N. Y. Rotating leer and operating same. No. 1,416,595; May 16.
Baker, Emma D., Nashville, Tenn. Hair curler. No. 1,416,596; May 16.
Baker, Frank E., and T. J. Biggs, Birmingham, England. Motor cycle. No. 1,416,315; May 16.
Baker, William H., Montreal, Quebec, Canada, assignor to Draper Corporation, Hopedale, Mass. Cop-holding skewer for looms. No. 1,416,157; May 16.
Balch, Clifton F., Evanston, Ill. Handling accounts. No. 1,416,437; May 16.
Balcker, Martin, assignor to J. Nelson, Chicago, Ill. Variable-speed friction drive. No. 1,416,158; May 16.
Baltzley, Louis E., Bloomfield, N. J. Adjustable wrench. No. 1,415,914; May 16.
Banta, Robert R., Chicago, Ill. Flush valve. No. 1,416,317; May 16.
Baramski, Joseph. (See Wismiewski, Walter, assignor.)

Barbet, Emile A., Paris, France. Continuous distillation of glycerin from the weak glycerinous liquors obtained in fermentation processes. No. 1,416,318; May 16.
Barbour, Robert, Paterson, N. J. Reversing mechanism for internal-combustion engines. No. 1,416,319; May 16.
Barclay, Hjalmar V., New York, N. Y. Heat exchanger. No. 1,416,320; May 16.
Barfield, Charles V. (See Brown, Milton D., assignor.)
Barnhart, George H., Ouray, Colo. Map file. No. 1,416,661; May 16.
Barr, Samuel C., Chillicothe, Ohio. Vending machine. No. 1,416,159; May 16.
Barratt, William G., Stoke-on-Trent, England. Teapot and coffeepot. No. 1,416,321; May 16.
Barrett, Charles G., Brookline, Mass., assignor to Worthington Pump and Machinery Corporation, New York, N. Y. Internal-combustion engine. No. 1,415,858; May 16
Barrier, Ralph W., Indianapolis, Ind. Laundry, bundling, packing, and wrapping device. No. 1,416,160; May 16.
Barrows, Donald S., Rochester, N. Y. Furnace. No. 1,416,438; May 16.
Barrows, Donald S., Rochester, N. Y. Wind bung for melting furnaces. No. 1,416,439; May 16.
Barszczewski, Maryan B., Cleveland, Ohio. Demountable rim. No. 1,416,440; May 16.
Bartlett, Henry B., assignor to B. F. Perkins & Son, Inc., Holyoke, Mass. Weighing mechanism. No. 1,415,915; May 16.
Barton, John W., Flint, Mich. Bench tire tool. No. 1,415,916; May 16.
Bartos, Frank, assignor of one-half to S. C Ashby, Jr., Helena, Mont. Landing net. No. 1,416,543; May 16.
Barzen, Richard G., Kansas City, Mo. Heat-controlling device. No. 1,416,544; May 16.
Batchelor, Charles L., Portland, Oreg. Bed. No. 1,415,978; May 16.
Bates, C. J., & Sons. (See Davis, Henry E, assignor.)
Bates, Joseph S., Bridgeport, Conn., assignor to The National Aniline & Chemical Company, Inc., New York, N. Y. Scraper for rotary filters. No. 1,415,859; May 16.
Beadle, George W., Stamford, assignor to Columbia Graphophone Manufacturing Company, Bridgeport, Conn. No. 1,416,441; May 16.
Becker, Joseph, assignor to The Koppers Company, Pittsburgh, Pa. Coking retort oven. No. 1,416,322; May 16
Bedford, Louise, Mount Pleasant, Iowa. Snowplow. No. 1,415,979; May 16.
Bellamy, Harry T., Oak Park, and T. Sweely, Cicero, Ill., assignors to Western Electric Company, Incorporated, New York, N. Y. Glass composition. No. 1,415,980; May 16.
Benner, Raymond C., and H. F. French, Fremont, Ohio, assignor to National Carbon Company, Inc. Depolarizer for primary batteries. No 1,415,860; May 16.
Benson, George H. (See Moen, H. C., and Benson.)
Bentley Machine Company. (See Bentley, Thomas, assignor.)
Bentley, Thomas, assignor of one-half to Bentley Machine Company, Dracut Center, Mass. Detector for roving and similar machines. No. 1,415,917; May 16.
Berg, Einar H., Chicago, Ill. Whipper. No. 1,416,597; May 16.
Berg, Joseph A. (See Anderson, N. B., and Berg.)
Berg, Martin. (See Berggraf, Hans, assignor.)
Bergander, John F., Chicago, Ill. Subdividing tool. No. 1,416,323; May 16.
Berggraf, Hans, Stavanger, assignor to M. Berg, Sandefjord, Norway. Pedal apparatus for sewing machines and the like. No. 1,416,324; May 16.
Berkeley Light Corporation. (See Wood, William G., assignor.)
Berry, William, Cleveleys, near Blackpool, England. Obtaining of grain and like effect in painting No. 1,416,325; May 16.
Beyer, Clarence B., Albuquerque, N. Mex., assignor of three-eighths to P. G. Redington, and one-fourth to F. L. McNama, Albuquerque, N. Mex. Tripping device. No. 1,416,161; May 16.
Biggs, Theodore J. (See Baker, F. E., and Biggs.)
Billings, William J (See Cleeve, Henry F., assignor.)
Billingsley, Henry A., Covington, Ohio. Self-feeding attachment for ensilage cutters. No. 1,416,251; May 16.
Billon, Frederic, assignor to Firm Scintilla, Solothurn, Switzerland. Electric starter for internal-combustion engines. No. 1,416,326; May 16.
Bing, Julius, Eisenbach, Germany. Machine for reducing turning chips and the like. No. 1,415,861; May 16.
Bishop, William E., Kansas City, Kans. Stamping machine. No. 1,416,442; May 16.
Black, Lester S., White Pigeon, Mich. Barrier gate. No. 1,416,162; May 16.
Blair, Robert S., Sound Beach, Conn. Storage-battery construction. No. 1,416,327; May 16.
Blanchard, George N., assignor to Colmar Burner Co., Inc., San Francisco, Calif. Automatic fuel control. (Reissue.) No. 15,354; May 16.
Blanchard, George N., assignor to E. B. Kimball, trustee, San Francisco, Calif. Hydrocarbon generator. No. 1,416,328; May 16.
Bloch, Jesse A., Wheeling, W. Va. Display box. No. 1,416,598; May 16.
Bloch, Leon, New York, N. Y. Bath fitting. No. 1,416,599; May 16.
Blodgett, Samuel, San Joaquin, Calif. Four-wheel-drive tractor. No. 1,416,329; May 16.
Blunt, James G., Schenectady, and Harry Swoyer, Dunkirk, N. Y. Water-gauge column. No. 1,415,862; May 16.
Blynt, Herbert S., Yale, Okla. Pneumatic vehicle tire. No. 1,416,252; May 16.
Bobek, John, Trevorton, Pa. Pneumatic vehicle tire. No. 1,416,253; May 16.
Bock, Bertha M. (See Bock, William E., assignor.)
Bock, William E., assignor to B. M. Bock, Eagle Point Colony, Ohio. Power-transmission mechanism. No. 1,416,163; May 16.
Bodlund, Robert G., Chicago, Ill. Roller bearing. No. 1,416,164; May 16.
Bodwell, Paul G., Griffin, Ga. Rail-drilling device. No. 1,416,600; May 16.
Boelman, George, Gridley, Calif. Fruit catcher. No. 1,415,863; May 16.
Boillot, Charles E., Brooklyn, N. Y. Self-winding clock mechanism. No. 1,416,254; May 16.
Boone, Robert G., Asbury Park, N. J. Combined heater and ventilator. No. 1,416,601; May 16.
Boone, Robert G., Asbury Park, N. J., assignor to R. Stockton and G. G. Bourne, New York, N. Y., and J. Kerney, Trenton, N. J. Heater. No. 1,416,255; May 16.
Boorum & Pease Company. (See McCleary, Henry R., assignor.)
Borden Company, The. (See Kirkup, Joseph P., assignor.)
Borger, Henry E., assignor to Splitdorf Electrical Company, Newark, N. J. Dynamo-electric-machine armature. No. 1,416,256; May 16.
Bostrom, Axel G. (See Holmes, G. E., and Bostrom.)
Bostrom, John M. (See Holmes, G. E., and Bostrom.)
Bosworth, George P., assignor to Hemphill Company, Central Falls, R. I. Spring-needle knitting machine. No. 1,416,257; May 16.
Bouché, William F., Lancaster, N. Y., assignor to Gould Coupler Company. Governor. No. 1,415,981; May 16.
Boulineau, William W., Cedartown, Ga. Dirigible spotlight. No. 1,415,982; May 16.
Bourne, George G., et al. (See Boone, Robert J., assignor.)
Bourne, Phillips P., Winchester, Mass., assignor to Worthington Pump and Machinery Corporation, New York, N. Y. Internal-combustion engine. No. 1,415,864; May 16.
Boyd, Frank W., assignor of one-third to J. A. O'Connell, Spokane, Wash. Fuse plug. No. 1,416,602; May 16.
Boyd, William. (See Steedman, Henry P. G., assignor.)
Brace, Porter H., Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company. Treating nonaqueous electrolytes. No. 1,415,983; May 16.
Brater, August W., New York, N. Y. Siphon control device. No. 1,416,603; May 16.
Bröndby, Fridtjof N., assignor to A/S Perkussion, Christiania, Norway. Combined rifle grenade and hand grenade. No. 1,416,545; May 16.
Bröndby, Fridtjof N., assignor to A/S Perkussion, Christiania, Norway. Ignition mechanism for hand grenades, projectiles, and mines. No. 1,416,662; May 16.
Brooks, Stephen H., Cleveland, Ohio. Self-renewing fuse. No. 1,416,258; May 16.
Brown, Alexander T., Syracuse, N. Y. Agricultural machine. No. 1,416,259; May 16.
Brown, Clarence C. (See Weeks, S. R., and Brown.)
Brown, Guy C., Waco, Tex. Pneumatic truck tire changing device. No. 1,415,865; May 16.
Brown, Harry W., Buffalo, N. Y. Meat-handling apparatus. No. 1,416,443; May 16.
Brown, James M., Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company. Switchboard lamp. No. 1,415,984; May 16.
Brown, James S., and R. R. Johnson, Warba, Minn. Egg case. No. 1,416,604; May 16.
Brown, Milton D., assignor of one-half to C. V. Barfield, San Francisco, Calif. Sifter. No. 1,416,260; May 16.
Brown, Patrick J. (See Hartwick, L. M., and Brown.)
Brown, William M., Johnstown, Pa. Switch stand. No. 1,416,397; May 16.
Brown, Winfred A. (See Watters, G. M., and Brown.)
Browne, John D., Springfield, Mass. Band-joining device. No. 1,415,918; May 16.
Brownell, Charles O., Battle Creek, Mich. Wrapping machine. No. 1,416,165; May 16.
Brune, Heinrich, and H. Horst, Frankfort-on-the-Main, Germany, assignors to The Corporation of Gesellschaft für Maschinelle Druckentwässerung mit beschrankter Haftung, at Uerdingen, Niederrhein, Germany. Utilizing coal slimes. No. 1,416,546; May 16.
Bryant, Everett B., assignor to American Engineering Company, Philadelphia, Pa. Operating mechanism for automatic stokers. No. 1,416,547; May 16.
Buckley, Jerry, Mills, Calif. Separating fruit from leaves. No. 1,415,985; May 16.
Buckwalter, John T., Lancaster, and F. T. Flinchbaugh, York, Pa.; said Flinchbaugh assignor to said Buckwalter. Valve for milking machines. No. 1,416,166; May 16.
Bugbee, Lucian W., assignor, by mesne assignments, to Twinsight Optical Company, Indianapolis, Ind. Making bifocal lenses. No. 1,416,444; May 16.
Bulka, Michael, Gardner, Mass., assignor to Astronomical Clock Manufacturing Company, Chicago, Ill. Astronomical clock. No. 1,416,605; May 16.

Bullard, Edwin W., Whitneyville, assignor to The Peck, Stow & Wilcox Company, Southington, Conn. Ratchet mechanism. No. 1,416,316; May 16.
Bungay, George W., Brooklyn, N. Y., assignor to Acme Die Casting Corporation. Feeding device for die-casting machines. No. 1,416,261; May 16.
Buratti, Romolo, Croce Mosso, Italy. Chlorine derivatives of hexamethylentetramine. No. 1,416,606; May 16.
Burd, Charles. (See Burd, George and C.)
Burd, George and C., Detroit, Mich. Pump. No. 1,416,445; May 16.
Burgess, Robert. (See Jones, Joseph H., assignor.)
Burns, Dawson J., Bronxville, N. Y., assignor to Ward Leonard Electric Company. Electrical controlling device. No. 1,416,446; May 16.
Burrows, Robert J., assignor to Clark Equipment Company, Buchanan, Mich. Metal wheel. No. 1,416,330; May 16.
Burton, Christopher D., London, England. Container. No. 1,415,986; May 16.
Burwell, George O., Detroit, Mich., and C. M. Kurtz, Bellevue, Pa. Trolley-wheel mount. No. 1,415,987; May 16.
Butler, John S., and E. Fowler, U. S. Army. Flash hider and recoil absorber. No. 1,415,919; May 16.
Butler, Percival P., and H. H. Stout, Douglas, Ariz., assignors of fifty-five one-hundredths to Phelps Dodge Corporation. Process and apparatus for extracting copper from slag in the reverberatory furnaces. No. 1,416,262; May 16.
Cable, George W., Marysville, Calif. Cleaner and polish composition. No. 1,415,866; May 16.
Callery, George F., Oak Park, and R. W. Lotz, Chicago, Ill. Carton. No. 1,415,988; May 16.
Campbell, Ernest R. (See Mosier, J. P., and Campbell.)
Campbell, Hardy W., Lincoln, Nebr. Grain shoe. No. 1,416,331; May 16.
Campbell, James H., et al. (See Taylor, Boone U., assignor.)
Campbell, William, Detroit, Mich. Electric fireless cooker. No. 1,416,263; May 16.
Caproni, Gianni, Milan, Italy. Flying-machine construction. No. 1,416,167; May 16.
Carey, Philip Manufacturing Company, The. (See Crabbs, Roscoe B., assignor.)
Carleton, Charles R., Brooklyn, N. Y. Perforating machine. No. 1,416,168; May 16.
Carpenter, Cranston H., Irwin, Pa., assignor to Westinghouse Electric & Manufacturing Company. Three-phase crucible furnace. No. 1,415,989; May 16.
Carstens, Alexander B., Monterey, Mexico, assignor to The American Metal Company, Limited. Rotary kiln. No. 1,415,990; May 16.
Carter, Robert E., Sykesville, Md. Yieldable drive shaft. No. 1,416,264; May 16.
Carter, Walter M., Portsmouth, Va. Lamp socket. No. 1,416,607; May 16.
Casablancas, Fernando, Sabadell, Spain. Drawing mechanism for textile rovings, with feeding belts. No. 1,416,608; May 16.
Castles, Richard C., Chicago, Ill. Holder for playing cards. No. 1,416,447; May 16.
Catalano, Peter P., North Collins, N. Y. Automatic safety gas cut-off. No. 1,416,169; May 16.
Cattaneo, Giustino, Milan, Italy. Cylinder of internal-combustion engines. No. 1,416,170; May 16.
Central Automatic Sprinkler Company. (See Lewis, Leroy M., assignor.)
Chace, Warren O., Everett, Mass. Stirrer. No. 1,416,332; May 16.
Chapin, Marvin E., assignor to Chicago Carton Company, Chicago, Ill. Shipping and dispensing box. No. 1,416,448; May 16.
Charlet, Hans, Krefeld, Germany. Inherently-regulated direct-current dynamo. No. 1,416,265; May 16.
Chicago Carton Company. (See Chapin, Marvin E.)
Chicago Case Manufacturing Company. (See Thomas, Adelbert A., assignor.)
Chicago Pneumatic Tool Company. (See Stevens, Edward W., assignor.)
Churchward, Alexander, New York, N. Y., assignor to Wilson Welder & Metals Company, Inc. Electric-arc welding. No. 1,416,449; May 16.
Churchward, Alexander, New York, N. Y., assignor to Wilson Welder & Metals Company, Inc. Electric welding method and apparatus. No. 1,416,450; May 16.
Cincinnati Bickford Tool Company, The. (See Schauer, L. L., assignor.)
Cizek, Fred L., Cedar Rapids, Iowa. Combined screen and storm door. No. 1,415,920; May 16.
Clapp, Albert L., Danvers, Mass. Smoke-filtering medium. No. 1,416,266; May 16.
Clark, Cadle, Harmon Corporation. (See Couch, Forrest J., assignor.)
Clark Equipment Company. (See Burrows, Robert J., assignor.)
Clasp-Tight Spring Company. (See Dick, Levi R. H., assignor.)
Clausen, Holger V., New York, N. Y. Garment supporter. No. 1,416,609; May 16.
Cleeve, Henry F., assignor of one-third to W. J. Billings, Jamaica, N. Y. Vehicle wheel. No. 1,415,991; May 16.
Clement, Edward E., Washington, D. C., assignor, by mesne assignments, to J. R. Garfield, trustee, Cleveland, Ohio. Telephone-exchange system. No. 1,416,088; May 16.
Clement, Lewis M., Newark, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Receiving station. No. 1,415,992; May 16.
Clemetsen Company. (See Vaaler, Jens, assignor.)
Closson, Clarence E., Potlatch, Idaho. Advertising cabinet. No. 1,416,267; May 16.
Cochran, Frederick K., Los Angeles, Calif. Safety fender for car wheels. No. 1,416,610; May 16.
Cohn & Rosenberger, Inc. (See Marcher, Royal, assignor.)
Cohn, Benno, assignor to Ferdinand Gutmann & Co., New York, N. Y. Box. No. 1,416,451; May 16.
Colardeau, Emmanuel L. P., assignor to H. Crochat, Paris, France. Electrical driving means. No. 1,416,611; May 16.
Colardeau, Emmanuel L. P., assignor to the Society Etablissements Henry Crochat, Paris, France. Electric motor. No. 1,416,612; May 16.
Colardeau, Emmanuel L. P., assignor to the Society Etablissements Henry Crochat, Paris, France. Train of vehicles. No. 1,416(613; May 16.
Colby, Ora A., Irwin, Pa., assignor to Westinghouse Electric & Manufacturing Company. Electric heating device. No. 1,415,993; May 16.
Cole, Arthur D., Minneapolis, Minn. Combination tongue and seat support for tractors. No. 1,416,171; May 16.
Coleman, Edward C., Hammond, La. Wrench. No. 1,415,867; May 16.
Collins, Cap B. (See Hasselquist, Hugo S., assignor.)
Collins, George M., Sprague, Wash. Vehicle tire. No. 1,415,994; May 16.
Collins, Michael, Fort Worth, Tex. Excavator and scraper. No. 1,416,268; May 16.
Colmar Burner Co. (See Blanchard, George N., assignor.)
Colorco. (See Jones, Charles F., assignor.)
Columbia Graphophone Manufacturing Company. (See Beadle, George W., assignor.)
Combustion Engineering Corporation. (See Van Brunt, John, assignor.)
Combustion Specialty Company. (See Manhire, William J., assignor.)
Conner, Charles E., Auburn Me., assignor to United Shoe Machinery Corporation, Paterson, N. J. Cutting machine. No. 1,415,921; May 16.
Conner, Edward A., Bridgeport, Conn., assignor to American Chain Company, Inc. Central connecting member for horse overshoes No. 1,416,333; May 16.
Connery, William M., Philadelphia, Pa. Flue and flue section. No. 1,416,334; May 16.
Connolly, Patrick, Brooklyn, N. Y. Fitting for tubs and sinks. No. 1,416,172; May 16.
Conrath, George T., Bowling Green, Ohio. Stopcock. No. 1,416,173; May 16.
Cook, Alfred B., Stockton, assignor to Taylor-Mayhew Pump Co., San Francisco, Calif. Oscillating pump. No. 1,416,174; May 16.
Cooper, George G., Hillsboro, Ill. Trolley guard. No. 1,416,398; May 16.
Cooper, Horace C., assignor of one-half to D. N. Stewart, Ardmore, Okla. Fishing tool. No. 1,415,995; May 16.
Copeman, Lloyd G., assignor to E. W. Atwood, Flint, Mich. Refrigerating apparatus. No. 1,415,922; May 16.
Corning Glass Works. (See Bailey, James, assignor.)
Couch, Forrest J., assignor to Clark, Cadle, Harmon Corp., Rochester, N. Y. Valve. No. 1,416,175; May 16.
Cournand, Jules, Paris, France. Syringe with progressively-graduated automatic action. No. 1,416,614; May 16.
Cowan Truck Company. (See Eidmann, Frank L., assignor.)
Cowey, Leonard E., Kew Gardens, England. Diaphragm warning horn. No. 1,416,452; May 16.
Crabbs, Roscoe B., Cincinnati, Ohio, assignor to The Philip Carey Manufacturing Company. Prepared-roofing shingle strip. No. 1,415,923; May 16.
Cramer, Edwin R., Newark, and O. H. Cramer, Edgewater, N. J. Oil projectile. No. 1,416,615; May 16.
Cramer, Oscar H. (See Cramer, E. R. and O. H.)
Crane, Louis, New York, N. Y. Nonremovable cork. No. 1,416,616; May 16.
Crispen, Clarence C., Harrisburg, Pa. Lubricator. No. 1,415,997; May 16.
Crisp, Thomas and T. F. M., assignors of one-third to J. Turner, Junction, Tex. Water motor. No. 1,415,996; May 16.
Crisp, Thomas F. M. (See Crisp, Thomas and T. F. M.)
Crail, Atlas O., Warren, Ohio. Seasoning wood No. 1,416,269; May 16.
Croasdale, Olney, Berwyn, Pa., assignor to Pioneer Suspender Company. Suspenders. No. 1,416,335; May 16.
Crochat, Henry. (See Colardeau, Emmanuel L. P., assignor.)
Crooks, Roxie. See Jupp, A. E., and Crooks.)
Crowle, William G. (See Fayle, W. H., and Crowle.)
Crum, Emanuel L., Indianapolis, Ind. Hood latch for automobiles. No. 1,416,453;; May 16.
Cua, Domenick M., Sandusky, Ohio. Cue holder. No. 1,416,617; May 16.
Cullerton, Patrick, Mansfield, Wash. Wire stretcher. No. 1,415,998; May 16.

Cuntz, Hermann F., Hartford, Conn., assignor to American Radium Company, New York, N. Y. Hand and indicator for watches and like articles. No. 1,416,176; May 16.

Curtis, Austen M., Brooklyn, assignor to Western Electric Company, Incorporated, New York, N. Y. Static reducer for wireless signals. No. 1,415,999; May 16.

Cutler-Hammer Mfg. Co., The. (See Packard, Horace N., assignor.)

Cyclone Manufacturing Company, The. (See Ullom, Ralph B., assignor.)

Czeperko, George, Unity Station, Pa. Sunken-ship-indicating device. No. 1,416,336; May 16.

D'Aix, Frederic C. L. (See Wilcox, Henry M., assignor.)

Dahl, Jack F. (See Andrick, W. P., and Dahl.)

Dalton Adding Machine Company, The. (See Landsiedel, Harry, assignor.)

Darrow, Leo H., New York, N. Y., assignor to American Telephone and Telegraph Company. Transmission-equalization arrangement. No. 1,415,868; May 16.

Dashwood, Walter E., San Francisco, Calif. Pile protector. No. 1,416,618; May 16.

Davey, Alan F. (See Denham, Frederick C., assignor.)

Davey, John F., Beverly, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J. Machine for inserting fasteners. No. 1,415,924; May 16.

Davis, Henry E., Boston, Mass., assignor to C. J. Bates & Son, Chester, Conn. Finger-nail buffer. No. 1,416,619; May 16.

Day, James A., Oilfields, Calif. Well-rod socket. No. 1,416,620; May 16.

Deane, Bernard P. F., Kensington, England. Radiator for motor vehicles and the like. No. 1,416,337; May 16.

De Clamecy, Philippe, assignor to B. F. Sturtevant Company, Boston, Mass. Composition of matter for and method of soldering and welding aluminum. No. 1,415,925; May 16.

De Coster, Charles J., Chicago, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y. Attachment for reeling machines. No. 1,416,000; May 16.

Dedichen, Jens, Berlin-Halensee, Germany, assignor to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Manufacture of diazotizable trisazo dyes. No. 1,416,621; May 16.

De Laval Separator Company, The. (See Leitch, Meredith, assignor.)

Deming, William L., Salem, Ohio. Bathing apparatus. No. 1,416,270; May 16.

Denham, Frederick C., Wellington, assignor of one-half to A. F. Davey, Taunton, England. Brake lever. No. 1,416,338; May 16.

Detroit Pressed Steel Company. (See Putnam, Alden L., assignor.) (Reissue.)

Dettmar, Frederick C., et al. (See Fischer, Henry J., assignor.)

Detwiler, Alfred E., Chicago, Ill. Thumb and finger protector. No. 1,416,001; May 16.

De Voe, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Sewing machine. No. 1,416,002; May 16.

De Voe, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Work-shifting mechanism for sewing machines. No. 1,416,003; May 16.

De Voe, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Buttonhole-sewing machine. No. 1,416,004; May 16.

De Voe, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Sewing machine. No. 1,416,005; May 16.

Devos, Constant L., New York, N. Y. Wrench. No. 1,416,271; May 16.

Dexter, John. (See Astbury, Thomas, assignor.)

Dexter, John, New Bedford, Mass. Condenser for textile fibers. No. 1,416,339; May 16.

Diamond Match Company, The. (See Schumacher, Henry C., assignor.)

Dick, Levi R. H., Chicago, Ill., assignor to Clasp-Tight Spring Company, Wilmington, Del. Chamber spring attachment. No. 1,416,177; May 16.

Dippel, William T., New York, N. Y. Annunciator. No. 1,416,340; May 16.

Di Stasio, Joseph, New York, N. Y. Reenforcing concrete structures. No. 1,416,548; May 16.

Dixon, Israel K., Johnstown, Pa. Switch stand. No. 1,416,399; May 16.

Dobbins, Timothy C., Denver, Colo. Shaft coupling. No. 1,416,341; May 16.

Dodge, Nathaniel S., Emeryville, Calif. Hose and making same. No. 1,416,400; May 16.

Dodgson, Frank L., Rochester, assignor to General Railway Signal Company, Gates, N. Y. Automatic train-control system. No. 1,416,622; May 16.

Doehler Die Casting Company. (See Duckworth, Clarence H., assignor.)

Doehler Die Casting Company. (See Kralund, John, assignor.)

Doehler Die Casting Company. (See Pack, Charles, assignor.)

Donath, Bruno, Friedenean, near Berlin, Germany. Electric discharging tube. No. 1,416,623; May 16.

Donnellan, Frank B., San Francisco, Calif. Means for feeding cans. No. 1,416,178; May 16.

Dortmunder Vulkan Aktiengesellschaft. (See Gmeinder, Anton, assignor.)

Douglas, John E., Ellensburg, Wash. Runner for baby carriages. No. 1,416,454; May 16.

Draper Corporation. (See Baker, William H., assignor.)

Draper Corporation. (See Norris, Frederick J., assignor.)

Draper Corporation. (See Rhoades, Alonzo E., assignor.)

Duckworth, Clarence H., assignor to Doehler Die Casting Company, Brooklyn, N. Y. Die-casting apparatus. No. 1,416,455; May 16.

Dudley, William L., assignor to Western Blower Company, Seattle, Wash. Air-washing device. No. 1,416,401; May 16.

Duff, Michael J., Bridgeport, Conn. Figure toy. No. 1,416,624; May 16.

Dutton, Frank H., Johannesburg, Transvaal, South Africa, assignor to Roadrails Limited, London, England. Locomotive for light railways. No. 1,416,625; May 16.

Dye, Glen M., assignor to Pako Corporation, Minneapolis, Minn. Photographic-print-washing machine. No. 1,416,402; May 16.

Eaton, George M., Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company. Supporting apparatus for use in tempering furnaces. No. 1,416,006; May 16.

Efficiency File Co. (See Turner, Roy J., assignor.)

Ehrlich, William, Chicago, Ill. Vehicle safe. No. 1,416,179; May 16.

Eidmann, Frank L., assignor to J. L. Wickoff, E. N. White, and G. T. Jenks, Holyoke, Mass., trustees, doing business as Cowan Truck Company. Elevating truck. No. 1,415,926; May 16.

Electrol Manufacturing Company. (See Hacking, Edward, assignor.)

Ellis-Foster Company. (See Rabinovitz, Louis, assignor.)

Elvin Mechanical Stoker Company. (See Fahnestock, Adam B., assignor.)

Emerson Phonograph Company. (See Emerson, Victor H., assignor.)

Emerson, Victor H., assignor to Emerson Phonograph Company, Inc., New York, N. Y. Sound record and producing the same. No. 1,416,342; May 16.

English, Thomas A., North Albany, N. Y. Staff or handle connection. No. 1,416,626; May 16.

Erwin, Orlando R., and C. B. Flory, Forest Hills, assignors to Foamite Firefoam Company, New York, N. Y. Apparatus for extinguishing fires. (Reissue.) No. 15,355; May 16.

Eschholz, Otto H., Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company. Electric-arc-welding system. No. 1,416,007; May 16.

Esselen, Gustavus J., Jr. (See Mork, H. S., and Esselen.)

Estate Stove Company, The. (See Kahn, Bertrand B., assignor.)

Everson, John J., Newton, Mass. Artificial hand. No. 1,416,180; May 16.

Everts, Wilber W., Rochester, N. Y. Method and means for cleaning silver, gold, platinum, and other articles. No. 1,416,403; May 16.

Ewald, Arno A., Oakfield, Wis. Air service station. No. 1,416,627; May 16.

Fahnestock, Adam B., Great Neck, N. Y., assignor, by mesne assignments, to Elvin Mechanical Stoker Company, Wilmington, Del. Fuel-feeding mechanism. No. 1,415,927; May 16.

Farmer, Robert Z., Roseburg, Oreg., assignor to Automatic Electric Brake Company. Power-transmitting device. No. 1,416,182; May 16.

Farmer, Robert Z., and G. S. Marsh, Roseburg, Oreg., assignors to Automatic Electric Brake Company. Car brake. No. 1,416,181; May 16.

Fay, James T., and L. B. Grasberger, Richmond, Va. Feed roller. No. 1,416,404; May 16.

Fay, Joseph W., assignor to Seamweld Equipment Company, Milwaukee, Wis. Electrode. No. 1,416,183; May 16.

Fayle, Wilfred H., and W. G. Crowle, Chisholm, Minn. Fuse for electric irons. No. 1,416,008; May 16.

Featherman, Irvin A., Brooklyn, N. Y. Casting corners for metal beds. No. 1,416,343; May 16.

Fegley, Victor, Jersey City, N. J., assignor to Phonograph Control Corporation, Wilmington, Del. Talking machine. No. 1,416,549; May 16.

Felt & Tarrant Mfg. Co. (See Turck, Joseph A. V., assignor.)

Ferguson, Thomas F., Hollywood, Ala. Water gate. No. 1,416,628; May 16.

Feuerstein, Cornelis J., Zwolle, Netherlands. Circular weaving machine. No. 1,416,344; May 16.

Fischer, Henry J., assignor of one-sixth to R. H. Haase and one-sixth to F. C. Dettmar, Baltimore, Md. Conveyer. No. 1,415,869; May 16.

Fischmann, David, Berlin, Germany. Apparatus for measuring and indicating the tangential pressure or the output of piston engines. No. 1,416,456; May 16.

Fisher, James B., St. Louis, Mo. Vehicle body inclosure. No. 1,415,928; May 16.

Fisher, John, Los Angeles, Calif. Eccentric hinge for molding flasks. No. 1,416,629; May 16.

Fisher, John, Los Angeles, Calif. Hinge for molding flasks. No. 1,416,630; May 16.

Fisher, Stanley, Northfields, Ealing, England. Apparatus for indicating ignition failures in internal-combustion engines. No. 1,416,457; May 16.

Fitzsimmons, John, et al. (See Thompson, Henry B., assignor.)

Fleisher, W. L., & Co. (See Lissauer, A. W., and Keyes, assignors.)
Fletcher, Richard D. L., et al. (See Newcomb, Alcanzo D., assignor.)
Flinchbaugh, Frederick T. (See Buckwalter, J. T., and Flinchbaugh.)
Florin, John L. Davenport, Wash. Weeding implement. No. 1,416,631; May 16.
Floriot, Edmond C., New York, N. Y. Electric toaster. No. 1,416,272; May 16.
Flory, Curtis B. (See Erwin, O. R., and Flory.) (Reissue.)
Flurie, Edward, Big Sioux Township, Union County, S. Dak. Shell belt. No. 1,416,184; May 16.
Foamite Firefoam Company. (See Erwin, O. R., and Flory, assignors.) (Reissue.)
Fonville, James D., Jr. (See Griffin, Marion A., assignor.)
Ford Motor Company. (See Galamb, Joseph, assignor.)
Forshee, Frank F., Flint, Mich. assignor to Westinghouse Electric Products Company. Control system for electric ranges. No. 1,416,009; May 16.
Fothergill, Harry, London, England. Apparatus for removing gases from liquids. No. 1,416,632; May 16.
Fowler, Elbert. (See Butler, J. S., and Fowler.)
Frank, Karl G., Wyoming, N. J. Vibrating reed instrument. No. 1,416,550; May 16.
Fraser, Ethelbert M., Yonkers, N. Y. Power transmission and control. No. 1,416,273; May 16.
Frazier-Sheal Company, The. (See Hartwick, L. M., and Brown, assignors.)
Fredericks, Maurice B., Waltham, Mass., assignor, by mesne assignments, to J. L. Levy, New York, N. Y. Picker for looms. No. 1,416,274; May 16.
Freedman, Abraham A., assignor of one-half to S. S. Soloway, Chicago, Ill. Sanitary telephone mouthpiece. No. 1,416,275; May 16.
Freeman, Frank L., Omaha, Nebr. Front-wheel drive mechanism for motor vehicles. No. 1,416,010; May 16.
French, Charles A., Madison, Wis. Door stop and holder. No. 1,416,276; May 16.
French, Harry F. (See Benner, R. C., and French.)
Freund Electric Manufacturing Company. (See Freund, Rudolf, assignor.)
Freund, Rudolf, Irvington, N. J., assignor to Freund Electric Manufacturing Company. Knife-blade switch. No. 1,416,185; May 16.
Froussard, Albert F., St. Louis, Mo. Piston ring. No. 1,416,011; May 16.
Fryer, Paul H., Philadelphia, Pa. Knitting machine. No. 1,416,186; May 16.
Fuller, George L., Sisquoc, Calif. Deep-well pump. No. 1,416,277; May 16.
Fuller, Leslie L., Edmonton, Alberta, Canada. Convertible automobile tonneau. No. 1,416,551; May 16.
Furman, Jack, Fort Bliss, Tex. Safety bottle stopper. No. 1,416,278; May 16.
Fuzessery, Elmer, Akron, Ohio. Resilient heel. No. 1,416,279; May 16.
Galamb, Joseph, Detroit, assignor to Ford Motor Company, Highland Park, Mich. Tire carrier. No. 1,415,870; May 16.
Gammeter, John R., Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y. Tire flap. No. 1,416,187; May 16.
Garfield, James R., trustee. (See Clement, Edward E., assignor.)
Garland, Claude M., Chicago, Ill. Apparatus for blowing soot from the tubes of boilers. No. 1,416,553; May 16.
Garland, Claude M., Chicago, Ill. Boiler cleaner. No. 1,416,552; May 16.
Garman, Harry B., Detroit, Mich., assignor to The Steel Products Company, Cleveland, Ohio. Drag link. No. 1,416,188; May 16.
Garman, Harry B., Detroit, Mich., assignor to The Steel Products Company, Cleveland, Ohio. Drag link. No. 1,416,189; May 16.
Gass, Elmer J., and D. W. Thurston, Pittsburgh, Pa. Unloading device. No. 1,416,190; May 16.
Gazdzicki, Joseph, Cleveland, Ohio, assignor of one-half to M. Zajac, Milno, Poland. Window-cleaning apparatus. No. 1,416,280; May 16.
Gehret, Samuel P., York, P. Latch. No. 1,415,871; May 16.
Geissinger, Harry G., assignor to Vapor Car Heating Company, Inc., Chicago, Ill. Heating system for railway trains. No. 1,415,872; May 16.
General Railway Signal Company. (See Dodgson, Frank L., assignor.)
Gentile, Joseph, Brooklyn, N. Y. Hose clamp. No. 1,416,012; May 16.
Gesellschaft für Maschinelle Druckentwässerung mit beschrankter Haftung. (See Brune, H., and Horst, assignors.)
Gettman, Charles A. (See Lusk, Raymond F., assignor.)
Gieseler, George A., Cleveland, Ohio. Nozzle No. 1,416,013; May 16.
Giliberti, Benedetto, New York, N. Y. Vibrator. No. 1,416,281; May 16.
Gilmour, Benjamin P., West Terre Haute, Ind. Switch frog. No. 1,416,458; May 16.
Gipe, Solomon S., Hershey, Pa. Corner-cutting machine for box blanks. No. 1,416,282; May 16.
Girard, Arthur G., Toledo, Ohio. Adjustable suspending rig for automobiles. No. 1,416,191; May 16.
Globe Paper Box Company. (See Schwenneke, Hans, assignor.)
Gmeinder, Anton, Mosbach, Baden, assignor to Dortmunder Vulkan Aktiengesellschaft, Dortmund, Germany. Helical spring friction clutch with auxiliary clutch. No. 1,416,283; May 16.
Godal, Arne, Vestre Aker, near Christiania, Norway. Producing sulpho-aromatic substances for use in the decomposition of fats. No. 1,416,284; May 16.
Gold, Edward E., New York, N. Y. Electric heater. No. 1,416,459; May 16.
Goodrich, B. F., Company, The. (See Gammeter, John R., assignor.)
Goodwin, Arthur N., and W. Sutherland, Montreal, Quebec, Canada. Dirigible headlight. No. 1,416,014; May 16.
Gosselin, Alphonse J., assignor to Standard Automatic Machine Company, Rochester, N. Y. Vacuum filling machine. No. 1,416,345; May 16
Gould Coupler Company. (See Bouché, William F., assignor.)
Grace, Edwin B., and W. J. Lafley, Memphis, Tenn. Conductor rail. No. 1,416,192; May 16.
Grasberger, Lawrence B. (See Fay, J. T., and Grasberger.)
Grearson, Frederick A. (See Watt, D. C., and Grearson.)
Greene, John A., Long Beach, Calif. Heater and ventilator. No. 1,416,346; May 16.
Greene, John S., Rochester, N. Y., assignor to Photostat Corporation, Providence, R. I. Print-storage equipment for cameras. No. 1,416,193; May 16.
Gregory, George, Denver, Colo. Bottle. No. 1,416,347; May 16
Griffin, Lorne A., Evanston, assignor to American Steam Conveyor Corporation, Chicago, Ill. Method of making cast-iron pipe sections. No. 1,416,460; May 16.
Griffin, Marion A., assignor of one-half to J. D. Fonville, Jr., Seymour, Tex. Dual transmission. No. 1,416,285; May 16.
Griswold, Adam H., Denver, Colo. Billiard counter. No. 1,416,015; May 16
Groene, William F., assignor to The R. K. Le Blond Machine Tool Company, Cincinnati, Ohio. Countershaft brake. No. 1,416,016; May 16.
Groene, William F., assignor to The R. K. Le Blond Machine Tool Company, Cincinnati, Ohio. Countershaft brake. No. 1,416,017; May 16.
Groh, Bernard C., St. Paul, Minn., assignor to Automatic Electric Company, Chicago, Ill. Telephone repeater. No. 1,416,663; May 16.
Groscup, William F., Baltimore, Md. Boiler. No. 1,416,286; May 16.
Grosvenor, Oliver, Akron, Ohio. Method of and apparatus for continuous vulcanizing. No. 1,415,929; May 16.
Gruchacz, Wladyslawa. (See Kuzzynski, Stanislaw, assignor.)
Gubin, Frederick E., Racine, Wis. Reserve-supply tank. No. 1,416,554; May 16
Guindon, Alexandre, Rockland, Ontario, Canada. Computing machine. No. 1,416,194; May 16.
Gurney, Edmund, Portland, Oreg. Dress form. No. 1,416,405; May 16.
Gutmann, Ferdinand, & Co. (See Cohn, Benno, assignor.)
Gutmann, John, Jr., Ridgewood, N. Y. Jacking apparatus. No. 1,416,633; May 16.
Guy, Sydney S., Finchfield, Wolverhampton, England. V-type internal-combustion engine. No. 1,416,348; May 16.
Hease, Robert H., et al. (See Fischer, Henry J., assignor.)
Hacking, Edward, Central Falls, R. I., assignor, by mesne assignments, to Electrol Manufacturing Company. Electric storage battery. No. 1,416,195; May 16.
Hafer, Edward C., assignor to J. A. Hafer, Chambersburg, Pa. Molding flask. No. 1,416,349; May 16.
Hafer, James A. (See Hafer, Edward C., assignor.)
Hall, Charles W., Valparaiso, Ind. Combined blackboard and desk. No. 1,416,555; May 16.
Hall, Francis C., Washington, D. C. Combination article of furniture. No. 1,416,018; May 16.
Hall, Peter, Pasadena, Calif. Candy box. No. 1,416,019; May 16.
Hall, Willard C., Butte, Mont. Process and apparatus for concentration and separation of diamagnetic minerals. No. 1,416,634; May 16.
Halleck, Frank A., Oak Park, Ill., assignor to Sullivan Machinery Company. Forging machine. No. 1,416,635; May 16.
Hance, Anselm B., New York, N. Y. Combination tool. No. 1,416,461; May 16.
Handlan-Buck Manufacturing Company. (See Kuehner, Louis C., assignor.)
Hanes, Dorris A., San Antonio, Tex. Foldable steering wheel. No. 1,416,636; May 16.
Hansen, Nicholas, Bogota, N. J. Coupling device. No. 1,416,020; May 16.
Hansen, Ole, Menan, Idaho. Beet elevator. No. 1,416,196; May 16.
Hanson, Bengt M. W., Hartford, Conn., assignor to Pratt & Whitney Company, New York, N. Y. Grinding machine. No. 1,416,462; May 16.
Hanson, Bengt M. W., Hartford, Conn., assignor to Pratt & Whitney Company, New York, N. Y. Grinding machine. No. 1,416,463; May 16.

Hanson, Bengt M. W., Hartford, Conn., assignor to Pratt & Whitney Company, New York, N. Y. Wheel-dressing mechanism. No. 1,416,667; May 16.
Hanson, Hans, Ivoryton, Conn., assignor to Underwood Computing Machine Company, New York, N. Y. Combined typewriting and computing machine. No. 1,416,464; May 16.
Harrah, George D., assignor to Multoplex Filing Device Company, Buffalo, N. Y. Filing device. No. 1,416,287; May 16.
Harrah, George D., assignor to Multoplex Filing Device Company, Buffalo, N. Y. Filing device. No. 1,416,288; May 16.
Harrah, George D., assignor to Multoplex Filling Device Company, Buffalo, N. Y. Filing device. No. 1,416,289; May 16.
Harriman National Bank of the City of New York, trustee. (See Vasselli, Anthony, assignor.)
Harrison, Francis, assignor to The Aladdin Renew Electric Lamp Corporation Limited, London, England. Manufacture of incandescent electric lamps. No. 1,416,197; May 16.
Harrison, William E., Philadelphia, Pa., assignor to Westinghouse Electric & Manufacturing Company. Telpherage system. No. 1,416,021; May 16.
Harsha, Horatio P., Detroit, Mich. Game apparatus. No. 1,416,556; May 16.
Hart, David A., assignor to Reliance Manufacturing Co., Providence, R. I. Buckle. No. 1,416,290; May 16.
Hart, Thomas J., Corning, N. Y., assignor to Ingersoll-Rand Company, Jersey City, N. J. Plate valve. No. 1,416,637; May 16.
Hartley, James F., Chattanooga, Tenn. Waste chute. No. 1,416,022; May 16.
Hartwick, Louis M., and P. J. Brown; said Hartwick assignor of his entire right to The Frazier-Sheal Company, Cleveland, Ohio. Hot-blast stove. No. 1,416,198; May 16.
Harvey, Henry, Chicago, Ill. Lining for chimneys and open fireplaces. No. 1,416,350; May 16.
Harvey, Leonard C., county of Surrey, England. Furnace. No. 1,416,406; May 16.
Harvey, William F., Toronto, Ontario, Canada. Display box. No. 1,416,465; May 16.
Hasselquist, Hugo S., assignor, by mesne assignments, to C. B. Collins, Oak Park, Ill. Razor-blade guard and face plate. No. 1,416,199; May 16.
Hatch, Raymond M., Trumansburg, N. Y. Nut lock. No. 1,416,292; May 16.
Hathaway, Charles H., West Allis, assignor to Badger Manufacturing Corporation, Milwaukee, Wis. Clamp. No. 1,416,351; May 16.
Hausman, Walter J., St. Louis, Mo., assignor to Underwood Computing Machine Company, New York, N. Y. Combined typewriting and computing machine. No. 1,416,023; May 16.
Hayes, Albert, New York, N. Y., assignor, by mesne assignments, to U. S. Industrial Alcohol Co. Apparatus for forming a liquid fuel. No. 1,416,291; May 16.
Hayes & Meserole Mfg. Co. (See Meserole, Milton D., assignor.)
Haynes, Davidson S., Evansville, Ind. Timer. No. 1,416,638; May 16.
Haynes, William J., Jr., Kansas City, Mo. Eraser-cleaning machine. No. 1,416,200; May 16.
Haynes, William J., Jr., assignor to National Wood Renovating Company, Kansas City, Mo. Eraser cleaner. No. 1,416,201; May 16.
Hazelett, Clarence W., Lakewood, Ohio, assignor to National Carbon Company, Inc. Dry cell. No. 1,415,873; May 16.
Headley, William Y., Cincinnati, Ohio. Oiling device. No. 1,416,202; May 16.
Healy, Marquette A., and W. I. Kirk, assignors to Lyon & Healy, Chicago, Ill. Lighting fixture. No. 1,416,664; May 16.
Hedberg, Carl W. J., New Britain, Conn., assignor to Research Corporation, New York, N. Y. Electric high-velocity classifier. No. 1,416,089; May 16.
Heller, Israel E., Buffalo, N. Y. Cloth-findings dispenser. No. 1,416,293; May 16.
Hellmund, Rudolf E., Swissvale, Pa., assignor to Westinghouse Electric & Manufacturing Company. System of control. No. 1,416,024; May 16.
Hemphill Company. (See Bosworth, George P., assignor.)
Herbert, Joseph I., Chicago, Ill. Heating apparatus. No. 1,416,025; May 16.
Hibbard, Lloyd J., Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company. System of control. No. 1,416,026; May 16.
Hickey, Simon, Marrickville, New South Wales, Australia. Automatic alarm. No. 1,415,874; May 16.
Hieb, Jacob G., Oakland, Calif. Direction signal for motor vehicles. No. 1,416,027; May 16.
Higgins, Frank C., Minneapolis, Minn. Gear-shift-controlling mechanism. No. 1,416,466; May 16.
Hill, Mark B., Ticonderoga, N. Y. Spark plug. No. 1,416,557; May 16.
Himmelfarb, Max, Brooklyn, N. Y. Serving tray. No. 1,416,294; May 16.
Hines, Arlow B., Van Wert, Ohio. Check protector. No. 1,416,639; May 16.
Hirschman, William F., Buffalo, N. Y. Rotary ventilator. No. 1,416,295; May 16.
Hoard, George A. (See Langston, F. A., and Hoard.)
Hobbs, James C., Pittsburgh, Pa. Combined light and structure. No. 1,416,467; May 16.
Hobson, Orlen, Fresno, Calif. Apparel lacing. No. 1,416,203; May 16.
Hoffman, Joseph, Camden, N. J. Automobile bumper wing. No. 1,416,468; May 16.
Hoitsma, Peter, Paterson, N. J. Scaffold machine. No. 1,416,296; May 16.
Holland-Letz, Lud, Oak Park, Ill., assignor to International Harvester Company. Fiber-handling mechanism. No. 1,415,930; May 16.
Holmes, Gustav E., J. M. Bostrom, and A. G. Bostrom, Milwaukee, Wis. Side-curtain door. No. 1,416,028; May 16.
Holte, Halvor, assignor of one-half to A/S Separator, Skien, Norway. Lubricating device for milk centrifuges and the like. No. 1,416,640; May 16.
Holtz, Gustav, Gouldsboro, Pa. Filling anchor for teeth and applying same. No. 1,416,558; May 16.
Horn, Ernest H., assignor to Waterbury Clock Co., Waterbury, Conn. Spring click for timepieces. No. 1,416,407; May 16.
Horschetzky, Louis, New York, N. Y. Resilient wheel. No. 1,416,408; May 16.
Horst, Heinz. (See Brune, H., and Horst.)
Horvath, Imre, Kenmore, Ohio. Safety and match box. No. 1,416,559; May 16.
Hottmann, Charles W., Philadelphia, Pa. Cutting machine. No. 1,416,204; May 16.
Houchens, Leonidas R., Washington, D. C. Lawn swing. No. 1,416,560; May 16.
Houchin, Alfred W., assignor to Shockless Electric Corporation, Kirkwood, N. J. Armature winding. No. 1,415,875; May 16.
House, Herbert E., Pasadena, Calif. Toy. No. 1,416,029; May 16.
House, Thomas M., Richmond, Va. Hanger support for wardrobe trunks. No. 1,416,030; May 16.
Howe, Lucien, Buffalo, N. Y. Bedstead. No. 1,416,297; May 16.
Howell, Arthur E., Brooklyn, assignor to Underwood Typewriter Company, New York, N. Y. Typewriting machine. No. 1,416,031; May 16.
Howes, Horace W., Waltham, Mass. Commutator. No. 1,415,931; May 16.
Hoy, Clarence A., assignor to Peerless Husker Company, Buffalo, N. Y. Mechanism for feeding elongated articles. No. 1,415,932; May 16.
Huff, Wilbert J., assignor to The Koppers Company, Pittsburg, Pa. Dehydration. No. 1,416,205; May 16.
Huff, Wilbert J., assignor to The Koppers Company, Pittsburg, Pa. Dehydration of pyridine. No. 1,416,206; May 16.
Huffman, Mike, Des Moines, Iowa. Steam-boiler clean-out device. No. 1,416,207; May 16.
Hume, John R., Chicago, Ill. Street indicator. No. 1,415,933; May 16.
Huntly, Philip C., Chicago, Ill. Manifold shield. No. 1,416,352; May 16.
Hupp, Albert, Oak Park, Ill. Spring support for vehicles. No. 1,416,469; May 16.
Hydrogenated Oil Company. (See Wimmer, Karl H., assignor.)
Ide, Geo. P., & Company. (See Twining, Frank B., assignor.)
Independent Pneumatic Tool Company. (See Levedahl, Axel, assignor.)
Ingersoll-Rand Company. (See Hart, Thomas J., assignor.)
Ingersoll-Rand Company. (See Saunders, William L., assignor.)
Ingersoll-Rand Company. (See Smith, William A., assignor.)
Inner Braced Seating Company, The. (See Smiley, William A., assignor.)
International Harvester Company. (See Holland-Letz, Lud, assignor.)
International Harvester Company. (See Sturrock, John, assignor.)
Irwin Auger Bit Company, The. (See Lacy, Dell, assignor.)
Irwin, George R., Turtle Creek, Pa., assignor to Westinghouse Electric & Manufacturing Company. Motor-control system. No. 1,416,032; May 16.
Jackson, Joseph G., assignor to Edward Katzinger Company, Chicago, Ill. Baking pan. No. 1,416,208; May 16.
Jackson, Robert E. (See Jenkins, E. M., and Jackson.)
Jacobus, David S., Jersey City, assignor to The Babcock & Wilcox Company, Bayonne, N. J. Method of and apparatus for operating steam-boiler economizers. No. 1,416,353; May 16.
Jaeckle, Friedrich, and P. Mehlhorn, Freiburg, Germany. Manufacture of reenforcements for wooden poles, masts, etc., which are set in the ground and have been damaged by weather influences. No. 1,416,641; May 16.
Jamison, Hermon E., assignor of one-fourth to C. W. Mitchell, Wilmore, Ky. Train-control mechanism. No. 1,416,470; May 16.
Janson, George W., Brooklyn, assignor to The Western Union Telegraph Company, New York, N. Y. Call-box contact mechanism. No. 1,416,642; May 16.
Jenkins, Edwin M., and R. E. Jackson, Priceton, W. Va. Flue-cleaning apparatus. No. 1,416,209; May 16.

Jenks, George F., et al., trustees. (See Eidman, Frank L.)
Joffe, Philip, New York, N. Y. Key ring. No. 1,415,934; May 16.
Johnson, Charles E., Gillespie, Ill. Vacuum sampler for tanks of refined oil and gasoline. No. 1,416,354; May 16.
Johnson, Eric, Seattle, Wash. Band-saw machine. No. 1,416,355; May 16.
Johnson, Fred L., Concord, N. H. Oiling system for explosive engines. No. 1,416,643; May 16.
Johnson, Harold, Brooklyn, N. Y. Auxiliary window sill. No. 1,416,561; May 16.
Johnson, Roy R. (See Brown, J. S., and Johnson.)
Johnston, Howard H., Edgewood Park, Pa., assignor to Westinghouse Electric & Manufacturing Company. System of control. No. 1,416,033; May 16.
Jones, Charles F., Los Angeles, assignor to Colorco, San Francisco, Calif. Duplex camera. No. 1,416,645; May 16.
Jones, Charles H., Moorestown, N. J., assignor, by mesne assignments, to P. R. Glass Company, Boston, Mass. Folding machine. No. 1,416,298; May 16.
Jones, Joseph H., Winthrop, assignor of one-half to R. Burgess, Newton Center, Mass. Cap-spinning frame. No. 1,416,356; May 16.
Jordan, Albert E., et al. (See Rhodes, John A., assignor.)
Jordan, George W., Riverside, Calif. Shoulder rest for violins. No. 1,416,644; May 16.
Jouett, Charles A., Pryse, Ky. Continuous petroleum-refining apparatus. No. 1,415,876; May 16.
Jung, Karl T. F., Kalmar, and G. H. Petersson, Stockholm, Sweden. Speed-integrating mechanism and the like. No. 1,416,210; May 16.
Jupp, Alfred E., and R. Crooks, Youngstown, Ohio. Automatic control for mills. No. 1,416,211; May 16.
Kahn, Bertrand B., Cincinnati, assignor to The Estate Stove Company, Hamilton, Ohio. Oven charger. No. 1,416,034; May 16.
Kaittila, Wilppu, Grayling, Mich. Sled. No. 1,415,877; May 16.
Kaltwasser, Oskar, Berlin, and H. Oehrn, Berlin-Charlottenburg, assignors to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Dyeing skins, hairs, and like. No. 1,416,646; May 16.
Katzinger, Edward Company. (See Jackson, Joseph G., assignor.)
Kaufmann, Jacob, Wilmersdorf, Germany. Producing inlaid work and the like. No. 1,416,212; May 16.
Kavana, James, Chicago, Ill. Electric switch and means for locking it. No. 1,416,471; May 16.
Keller, Elsie. (See Suedmeyer, Louis, assignor.)
Kelly, Martin T. A., Joliet, Ill. Window lock. No. 1,416,035; May 16.
Kempton, Willard H., Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company. Insulation and making same. No. 1,416,036; May 16.
Kerlow Steel Flooring Co. (See Lown, Walter H., assignor.)
Kerney, James, et al. (See Boone, Robert J., assignor.)
Kerns, John W., Lincoln, Nebr. Piston and piston ring. No. 1,416,472; May 16.
Keyes, Robert E. (See Lissauer, A. W., and Keyes.)
Kimball, Edwin B., trustee. (See Blanchard, George N., assignor.)
Kincaid, Robert L., Syracuse, N. Y. Clothes wringer. No. 1,416,213; May 16.
King, Charles C., assignor to The Lake Torpedo Boat Company, Bridgeport, Conn. Storage-battery-ventilating system. No. 1,416,214; May 16.
King, Norman C., Du Bois, Pa. Drill. No. 1,416,647; May 16.
Kirgan, Edward F., Cincinnati, Ohio. Universal measuring implement. No. 1,416,473; May 16.
Kirk, Walter I. (See Healy, M. A., and Kirk.)
Kirkup, Joseph P., Elmhurst, assignor to The Borden Company, New York, N. Y. Recovering solids from vapors and means for utilizing the same. No. 1,416,215; May 16.
Klauberg, C., & Bros. Inc. (See Klauberg, William J., assignor.)
Klauberg, Charles J., et al., executors. (See Klauberg, William J.)
Klauberg, William J., deceased, C. J. and W. W. Klauberg, executors, New York, assignors to C. Klauberg & Bros., Inc., New York, N. Y. Safety razor. No. 1,416,090; May 16.
Klauberg, William W., et al., executors. (See Klauberg, William J.)
Kleffman, Ray C., Hibbing, Minn. Rim lug for vehicle wheels. No. 1,416,648; May 16.
Klein, Charles H., Chaska, Minn. Drier car. No. 1,416,091; May 16.
Kline, George P., assignor to Williams, White & Company, Moline, Ill. Spacing machine. No. 1,416,299; May 16.
Knaak, George A., Milwaukee, Wis. Controlling apparatus. No. 1,416,092; May 16.
Knell, Charles H., assignor to Verona Tool Works, Verona, Pa. Anticreeping device for railway rails. No. 1,416,474; May 16.
Knott, Edward, Los Angeles, Calif. Inner-tube tester. No. 1,416,649; May 16.
Knowles, Carroll, Hartford, Conn., assignor to Pratt & Whitney Company, New York, N. Y. Water-control system for surface grinders. No. 1,416,475; May 16.
Knuusi, Frank O., Huron Mountain, Mich. Protractor. No. 1,416,357; May 16.
Kohnle, Frederick, assignor to The Monarch Tag Company, Dayton, Ohio. Price tag. No. 1,416,665; May 16.
Kondracki, Chester, Ellwood City, Pa. Combination shade and curtain hanger. No. 1,416,093; May 16.
König, Adolf. (See Krawczyk, S., and König.)
Kooperstein, Louis, assignor to West Disinfecting Company, New York, N. Y. Dispensing valve. No. 1,416,037; May 16.
Kopp, Hugo. (See Baer, R., and Kopp.)
Koppers Company, The. (See Becker, Joseph, assignor.)
Koppers Company, The. (See Huff, Wilbert J., assignor.)
Kralund, John, Brooklyn, assignor to Doehler Die Casting Company, Brooklyn, N. Y. Die-casting apparatus. No. 1,416,476; May 16.
Kralund, John, Brooklyn, assignor to Doehler Die Casting Company, Brooklyn, N. Y. Weighing apparatus. No. 1,416,477; May 16.
Krauska, Thomas, assignor to Alastic Tire Cushion Company, St. Louis, Mo. Tire-setting machine. No. 1,416,094; May 16.
Krawczyk, Stanley, and A. König, Plainfield, N. J. Loom shuttle. No. 1,416,095; May 16.
Krecker, William. (See Keller, J. E., and Krecker.)
Krefl, Victor, Eagle River, Wis. Automobile bumper. No. 1,416,358; May 16.
Kress, Jacob F. (See Selah, Howard A., assignor.)
Kriesel, Gustave F., assignor, by mesne assignments, to E. V. Safstrom, Minneapolis, Minn. Boring and milling machine. No. 1,415,878; May 16.
Kuczynski, Stanislaw, assignor of one-half to Wladysawa Gruchacz, Cleveland, Ohio. Table attachment for beds. No. 1,416,562; May 16.
Kuehner, Louis C., assignor to Handlan-Buck Manufacturing Company, St. Louis, Mo. Electric lamp. No. 1,416,096; May 16.
Kurtz, Charles M. (See Burwell, G. O., and Kurtz.)
LaChapelle, Fred N., Beverly, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J. Fastening-inserting machine. No. 1,415,935; May 16.
Lachman, Laurence S., assignor to Universal Electric Welding Company, New York, N. Y. Side-welding wires. No. 1,416,359; May 16.
Lachman, Laurence S., assignor to Universal Electric Welding Company, New York, N. Y. Electric welding device. No. 1,416,360; May 16.
Lacy, Dell, assignor to The Irwin Auger Bit Company, Wilmington, Ohio. Cutting, shaping, and polishing metal articles. No. 1,415,879; May 16.
Laffey, William J. (See Grace, E. B., and Laffey.)
Lake Torpedo Boat Company, The. (See King, Charles C., assignor.)
Lamb, Arthur B., and A. T. Larson, Washington, D. C. Gas detector. No. 1,416,361; May 16.
Lamb, Joseph F., assignor to Landers, Frary & Clark, New Britain, Conn. Driving mechanism for washing machines. No. 1,416,479; May 16.
Lamb, Joseph F., assignor to Landers, Frary & Clark, New Britain, Conn. Range. No. 1,416,478; May 16.
Lambert, Henry M., Portland, Oreg., assignor to Lambert Tire & Rubber Company, Akron, Ohio. Mold for pneumatic tires. No. 1,416,362; May 16.
Lambert Tire & Rubber Company. (See Lambert, Henry M., assignor.)
Lamme, Benjamin G., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Driving system for gyroscopic stabilizers. No. 1,416,038; May 16.
Lancaster, George W., assignor to Perfected Window Company, Incorporated, Richmond, Va. Interlocking swinging sash and casement and lock therefor. No. 1,416,097; May 16.
Lancaster, Nelly M., Palatka, Fla. Hose supporter. No. 1,416,650; May 16.
Landers, Frary & Clark. (See Lamb, Joseph F., assignor.)
Landsiedel, Harry, Norwood, assignor to The Dalton Adding Machine Company, Cincinnati, Ohio. Adding machine. No. 1,416,363; May 16.
Landsiedel, Harry, Norwood, assignor to The Dalton Adding Machine Company, Cincinnati, Ohio. Adding machine. No. 1,416,364; May 16.
Lanfair, Ernest L., Lanfair, Calif. Automobile door. No. 1,416,651; May 16.
Langston, Frederick A., and G. A. Hoard, Chicago, Ill. Hinge. No. 1,416,039; May 16.
Larsen, Charles F., Chicago, Ill. Gas lighter. No. 1,416,098; May 16.
Larson, Alfred T. (See Lamb, A. B., and Larson.)
Larson, Lars J., Seattle, Wash. Door lock. No. 1,416,365; May 16.
La Société dite: Etablissements L. Rosengart Siège Social. (See Rosengart, Sylvain, assignor.)
Latham, Albert, Beverly, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J. Machine for making nail strings. No. 1,415,936; May 16.
Latimer, Roy S., Troy, assignor to T. H. Latimer, Saratoga Springs, N. Y. Folding machine. No. 1,416,099; May 16.
Latimer, Thomas H. (See Latimer, Roy S., assignor.)
Laubenheimer, Walter J., Chicago, Ill. Drafting device. No. 1,416,652; May 16.

Leatherman, Charles H., assignor to The Pioneer Manufacturing Company, Cleveland, Ohio. Duster. No. 1,416,480; May 16.
Le Blond, R. K. Machine Tool Company, The. (See Groene, William F., assignor.)
Legge, Howard, Los Angeles, Calif. Phonograph needle. No. 1,416,216; May 16.
Leinberger, John T., and J. L. Roth, Monitor Township, Bay County, Mich. Combined grader and material-transporting vehicle. No. 1,415,880; May 16.
Leitch, Lucy B., administratrix. (See Leitch, Meredith.)
Leitch, Meredith, deceased, Poughkeepsie, N. Y., by L. B. Leitch, administratrix, Montgomery, Ala., assignor to The De Laval Separator Company, New York, N. Y. Milking-machine-operating system. No. 1,415,882; May 16.
Leitch, Meredith, Poughkeepsie, assignor to The De Laval Separator Company, New York, N. Y. Centrifugal oil purifier. No. 1,415,881; May 16.
Lenneberg, Adolf, Yonkers, N. Y. Glove attachment. No. 1,416,653; May 16.
Lenneberg, Adolf, Yonkers, N. Y. Vanity-case assemblage. No. 1,416,654; May 16.
Le Valley, John M., Ionia, Mich. Snow leveler and packer. No. 1,416,563; May 16.
Levedahl, Axel, Aurora, assignor to Independent Pneumatic Tool Company, Chicago, Ill. Separator. No. 1,416,040; May 16.
Levy, Henri G., San Francisco, Calif. Mixing-device agitator. No. 1,416,100; May 16.
Levy, Joseph L. (See Fredericks, Maurice B., assignor.)
Lewis, Charles F., Chicago, Ill. Calendar and diary page. No. 1,415,883; May 16.
Lewis, Leroy M., assignor, by mesne assignments, to Central Automatic Sprinkler Company, Philadelphia, Pa. Dry-pipe valve for fire extinguishers. No. 1,415,884; May 16.
Leytens, Marcel, Antwerp, Belgium. Means for coupling tractors and trailers. No. 1,416,217; May 16.
Liddell, Moses V., Harvey, assignor to Austin Manufacturing Co., Chicago, Ill. Motor-driven pick-up sweeper. No. 1,416,041; May 16.
Lindemann, A. J., & Hoverson Company. (See Lorenz, Gustave C., assignor.)
Lindholm, Arthur C., Springfield, Mass. Grinder fixture. No. 1,416,366; May 16.
Lippitz, Wilhelm, Jauer, Germany. Apparatus for planting potatoes and the like. No. 1,415,937; May 16.
Lissauer, Adolph W., and R. E. Keyes, assignors to W. L. Fleisher & Co., Inc., New York, N. Y. Dehumidifying air. No. 1,416,218; May 16.
Litchfield, Herman C., Waukegan, Ill. Dispensing apparatus. No. 1,416,219; May 16.
Little, Arthur D., Inc. (See Mork, H. S., and Esselen, assignors.)
Little, Mary L., Los Angeles, Calif. Fruit funnel. No. 1,416,101; May 16.
Loder, Howard W., Towaco, N. J., assignor to American Chain Company, Incorporated, Bridgeport, Conn. Chain tire grip and tightener therefor. No. 1,416,300; May 16.
Lodge, Clara A., administratrix. (See Woolard, H., and Lodge.)
Lodge, John H. F. (See Woolard, H., and Lodge.)
London, Emanuel, New York, N. Y. Mouth wash. No. 1,416,666; May 16.
Long, Albert A., Ballston, Va., and H. H. Turner, Hempstead, N. Y. Flow meter. No. 1,416,220; May 16.
Longoria, Antonio, Cleveland, Ohio. Electric heating pad. No. 1,416,481; May 16.
Longoria, Antonio, Cleveland, Ohio. Controlling device for electric heaters. No. 1,416,482; May 16.
Lorenz, Gustave C., assignor to A. J. Lindemann & Hoverson Company, Milwaukee, Wis. Connection for liquid-fuel burners. No. 1,416,221; May 16.
Lott, William E., Newark, N. J. Bolt lock for demountable rims. No. 1,415,938; May 16.
Lotz, Rudolph W. (See Callery, G. F., and Lotz.)
Louis, Elek, deceased; F. Louis, administratrix, New York, N. Y. Combination organ-stop action. No. 1,416,367; May 16.
Louis, Fanny, administratrix. (See Louis, Elek.)
Louisville Auto Painting and Trimming Company. (See Reed, William M., assignor.)
Loveland, Ernest M., Hackensack, N. J. Process and apparatus for manufacturing soap. No. 1,416,483; May 16.
Lowe, James, Auckland, New Zealand. Gas-generating plant. No. 1,416,042; May 16.
Lowe, William C., Atlanta, Ga. Device for teaching penmanship. No. 1,416,564; May 16.
Lown, Walter H., assignor to Kerlow Steel Flooring Co., Jersey City, N. J. Grating or ventilator. No. 1,416,484; May 16.
Lundeen, John, Portland, Oreg. Bedclothes clamp. No. 1,416,655; May 16.
Lurie, William A., New Orleans, La. Electrical indicating system. No. 1,416,485; May 16.
Lusk, Raymond F., assignor of one-half to C. A. Gettman, Columbus Grove, Ohio. Lathe center. No. 1,416,102; May 16.
Lustgarten, Charles, Chicago, Ill. Sanitary bottle top. No. 1,416,565; May 16.
Lyda, Arthur W., North Canton, Ohio. Time lock for automobiles. No. 1,415,885; May 16.
Lyman, Stanley W., Billings, Mont. Hinge. No. 1,416,656; May 16.
Lyon & Healy. (See Healy, M. A., and Kirk, assignors.)
McCann, Ronald A., assignor to The Union Switch & Signal Company, Swissvale, Pa. Railway signal. No. 1,415,886; May 16.
McCarthy, Thomas E., Two Harbors, Minn. Car coupling. No. 1,416,368; May 16.
McCartin, John J., Rockville, Conn. Metatarsal-arch support. No. 1,416,103; May 16.
McCleary, Henry R., assignor to Boorum & Pease Company, New York, N. Y. Advertising and display case. No. 1,416,566; May 16.
McGinnis, William J. (See Peterson, E. A., and McGinnis.)
McFall, James R., Cleveland, Ohio. Resilient wheel. No. 1,416,104; May 16.
McGill, Daniel F., Portland, Oreg. Sprinkler. No. 1,416,222; May 16.
McKee, Robert G., Peru, Ind. Waste retainer for journal boxes. No. 1,416,105; May 16.
McKnight, Al D., et al. (See Taylor, Boone U., assignor.)
McLaughlin, Frank, Ottawa, Ontario, Canada. Powder dispenser. No. 1,416,043; May 16.
McNama, Frank L., et al. (See Beyer, Clarence B., assignor.)
McNeel, William P., San Antonio, Tex. Speed-regulating device. No. 1,416,567; May 16.
McWhorter, Allen, Riverton, N. J. Grass-edge trimmer. No. 1,416,106; May 16.
McWilliams, James A., Chicago, Ill. Ice pick. No. 1,415,887; May 16.
Mabry, Rexford C., Nashua, N. H. Centrifugal pulp-drying machine. No. 1,415,939; May 16.
Macheroux, Louis, assignor of one-half to K. Matheus, Chicago, Ill. Garment and the like. No. 1,416,486; May 16.
Maher, Thomas, Mount Clemens, Mich. Game board. No. 1,416,107; May 16.
Mahoney, John W., Waterbury, Conn. Fireplace andirons and screen. No. 1,416,369; May 16.
Maltby, Arthur T., Chicago, Ill. Resilient wheel for vehicles. No. 1,415,888; May 16.
Manhire, William J., assignor to Combustion Specialty Company, Kansas City, Mo. Automatic regulator for boiler furnaces. No. 1,415,940; May 16.
Marcher, Royal, assignor to Cohn & Rosenberger, Inc., New York, N. Y. Combined mirror and vanity case. No. 1,416,223; May 16.
Marden, Charles W., Portsmouth, N. H. Train-stopping device. No. 1,416,108; May 16.
Mardick, John R., New York, assignor to Acheson Graphite Company, Niagara Falls, N. Y. Explosive. No. 1,415,889; May 16.
Marlin-Rockwell Corporation. (See Neal, Elmer E., assignor.)
Marr, George M. (See Sobel, L., and Marr.)
Marriott, Harry H., Kansas City, Mo. Lens. No. 1,416,109; May 16.
Marsh, George S. (See Farmer, R. Z., and Marsh.)
Marsh, Robert T., et al. (See Newcomb, Alcanzo D., assignor.)
Marsico, Gerard R., assignor to Puriton Manufacturing Corporation, Brooklyn, N. Y. Signal. No. 1,416,224; May 16.
Martin, Anita, New York, N. Y. Dress shield. No. 1,416,044; May 16.
Mason, Charles T., Sumter, S. C., assignor to Splitdorf Electrical Company, Newark, N. J. Apparatus for generating electric currents. No. 1,416,110; May 16.
Matheus, Karl. (See Macheroux, Louis, assignor.)
Matthes, Samuel S., assignor to The Ohio Brass Company, Mansfield, Ohio. Electric-current-collecting device. No. 1,416,045; May 16.
Mauck, Victor, Norristown, Pa. Gas water heater. No. 1,416,487; May 16.
Maurer, Martin J. C. A., Springfield, Ill. Latch. No. 1,416,370; May 16.
May, Francis M., Louisville, Ky. Electric heater. No. 1,416,225; May 16.
Mayo, Benjamin F., Salem, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J. Heeling machine. No. 1,415,941; May 16.
Mazzocco, Leandro, Lynn, Mass. Means for securing the strings of musical instruments. No. 1,416,568; May 16.
Meade, Henry L., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,416,226; May 16.
Meade, Richard K., Baltimore, Md. Kiln. No. 1,416,657; May 16.
Megill, Edward L., New York, N. Y. Feed gauge for printing presses. No. 1,416,488; May 16.
Mehlhorn, Paul. (See Jaeckle, F., and Mehlhorn.)
Meikle, George S., Manhattan, assignor to S. Sternau & Company, Inc., Brooklyn, N. Y. Heater. No. 1,415,890; May 16.
Merrill, Cortez, Oelwein, Iowa. Bottle stopper. No. 1,416,227; May 16.
Mersfelder, William L., Detroit, Mich. Furnace. No. 1,416,111; May 16.
Merzenich, William T., Minneapolis, Minn. Grain separator. No. 1,416,489; May 16.
Meserole, Milton D., assignor to Hayes & Meserole Mfg. Co., Milford, Conn. Hair curler. No. 1,416,301; May 16.

Metals Recovery Company. (See Sayre, Ralph E., assignor.)
Meyer, Harry R., Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company. Mounting of control apparatus. No. 1,416,046; May 16.
Meyer, Harry R., Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company. Control apparatus. No. 1,416,047; May 16.
Meyers, Julius R., Glencoe, Ill. Forming cheese. No. 1,415,942; May 16.
Meyers, Julius R., Glencoe, Ill. Making cheese. No. 1,415,943; May 16.
Meyers, Julius R., Evanston, Ill. Cheese packing. No. 1,415,944; May 16.
Michell, Carl H. (See Whipple, Ralph, assignor.)
Michelsen, Michael, Newport News, Va. Horseshoe. No. 1,416,658; May 16.
Miles, George F., New York, N. Y. Wind and rain shield. No. 1,416,112; May 16.
Miller, Lloyd J., Newark, N. J., assignor to Telescope Cot Bed Company, Inc. Folding table. No. 1,416,048 May 16.
Mills, Herbert S. (See Sandell, Henry K., assignor.)
Miner, Joseph A., assignor to American Metal Furniture Company, Indianapolis, Ind. Storage cabinet. No. 1,416,409; May 16.
Miner, William H., Chazy, N. Y., and J. F. O'Connor, Chicago, Ill.; said O'Connor assignor to said Miner. Railway friction draft rigging. No. 1,416,113; May 16.
Minich Railway Appliance Corporation. (See Minich, Russell H., assignor.)
Minich, Russell H., assignor to Minich Railway Appliance Corporation, Philadelphia, Pa. Car brake. No. 1,416,371; May 16.
Minks, Robert A., Dewey, Ill. Stack-forming apparatus. No. 1,415,891; May 16.
Minnich, Delbert W., Wadsworth, Ohio. Auto attachment. No. 1,416,569; May 16.
Minnis, Henry M., Wylie, Tex. Cistern outlet. No. 1,416,228; May 16.
Mitchell, C. W. (See Jamison, Hermon E., assignor.)
Mitchell, Oliver, Brookline, Mass. Fountain pen. No. 1,416,302; May 16.
Modine, Arthur B., Chicago, Ill. Radiator core. No. 1,416,570; May 16.
Moen, Herman C., and G. H. Benson, Cambridge, Wis. Conveying apparatus. No. 1,415,892; May 16.
Möller, Otto F., assignor to National Motor Car & Vehicle Corporation, Indianapolis, Ind. Windshield-supporting bracket. No. 1,416,114; May 16.
Monarch Tag Company, The. (See Kohnle, Frederick, assignor.)
Monrie, Collier, Waco, Tex. Hair clipper. No. 1,416,115; May 16.
Monsen, Adolph, Logansport, Ind. Oiling system for internal-combustion engines. No. 1,416,490; May 16.
Montee, Tracy D., Hoilo, P. I. Pressure operated switch. No. 1,416,491; May 16.
Monti, Eudo, Turin, Italy. Preparing stable predigested foods. No. 1,416,372; May 16.
Moore, George, Joplin, Mo. Food product and process. No. 1,415,893; May 16.
Moore, Henry C., Jr., et al. (See Taylor, Boone U., assignor.)
Moore, Jemerson, Oklahoma, Okla. Fruit picker. No. 1,415,945; May 16.
Moran, Edward J., Chicago, Ill. Punctureproof tire. No. 1,416,049; May 16.
Morand Cushion Wheel Company. (See Morand, Joseph J., assignor.)
Morand, Joseph J., assignor to Morand Cushion Wheel Co., Chicago, Ill. Cushion-wheel construction. No. 1,416,373; May 16.
Morawski, Jan, Buenos Aires, Argentina. Refrigerating plant. No. 1,416,492; May 16.
Moren, John A., Webster, Wis. Telephone attachment for motor vehicles. No. 1,416,116; May 16.
Morgan, John H., Eldorado, Okla. Blower. No. 1,416,229; May 16.
Morin, Philiace, assignor to Morin Saw Gauge Mfg. Co., Seattle, Wash. Saw set. No. 1,416,374; May 16.
Morin Saw Gauge Mfg. Co. (See Morin, Philiace, assignor.)
Mork, Harry S., Brookline, and G. J. Esselen, Jr., Swampscott, assignors to A. D. Little, Inc., Cambridge, Mass. Making a combustible material. No. 1,416,493; May 16.
Morrison, Lewis J., Boston, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J. Channel-flap-laying machine. No. 1,415,946; May 16.
Morton, Frederick R., Fresno, Calif. Scraping or leveling machine. No. 1,416,494; May 16.
Mosier, James P., St. Francis, and E. R. Campbell, Desloge, Mo., assignors to National Lead Company, New York, N. Y. Mine-loading machine. No. 1,416,050; May 16.
Mueller, Edward H., Hartford, Wis. Automobile headlight. No. 1,416,375; May 16.
Muir, Herbert H., Western Springs, Ill. Reenforcing bar for cementitious materials. No. 1,416,117; May 16.
Müller, Hermann, St. Gallen, Switzerland. Fastener for doormats, carpets, rugs, and the like. No. 1,416,051; May 16.
Multoplex Filing Device Company. (See Harrah, George D., assignor.)
Munzner, Charles, Chicago, Ill., assignor to American Stove Company, St. Louis, Mo. Door latch. No. 1,416,495; May 16.
Murphy, Thomas F., New York, N. Y. Safety razor. No. 1,416,571; May 16.
Muther, Lorenz. (See Althouse, Charles F., assignor.)
Muther, Lorenz. (See Wales, Alfred B., assignor.)
Nair, Louis, New Britain, Conn. Ball cock. No. 1,416,496; May 16.
Narizzano, John, Hampton Wick, England. Machine for covering wire with silk, cotton, or the like. No. 1,416,497; May 16.
Nathan, Walter S., Milwaukee, Wis. Lamp-position controller. No. 1,416,376; May 16.
National Aniline & Chemical Company. (See Bates, Joseph S., assignor.)
National Carbon Company. (See Benner, R. C., and French, assignors.)
National Carbon Company. (See Hazelett, Clarence W., assignor.)
National Lead Company. (See Mosier, J. P., and Campbell, assignors.)
National Motor Car & Vehicle Corporation. (See Möller, Otto F., assignor.)
National Wood Renovating Company. (See Haynes, William J., Jr., assignor.)
Neal, Elmer E., New Haven, Conn., assignor to Marlin-Rockwell Corporation, New York, N. Y. Bomb structure. No. 1,415,947; May 16.
Neill, Paul. (See Allen, R. M., and Neill.)
Nelson, Charles A., et al. (See Taylor, Boone U., assignor.)
Nelson, John. (See Balcker, Martin, assignor.)
Newcomb, Alcanzo D., Norfolk, assignor, by mesne assignments, of one-half to R. D. L. Fletcher, Cape Charles, and one-half to R. T. Marsh, Richmond, Va. Hatch for boats. No. 1,416,499; May 16.
Newcomb, Alcanzo D., Norfolk, assignor, by mesne assignments, of one-half to R. D. L. Fletcher, Cape Charles, and one-half to R. T. Marsh, Richmond, Va. Releasing mechanism for life boats. No. 1,416,498; May 16.
Newman, Horatio H., et al. (See Rhodes, John A., assignor.)
Niagara Sprayer Co. (See Tower, Max L., assignor.)
Nichols, Malcolm P., New Haven, Conn. Dirigible light projector. No. 1,416,119; May 16.
Nicolaus, Frederic G., Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo. Oven burner. No. 1,416,500; May 16.
Nielsen, Niels, D., Elyria, Ohio. Carburizing material. No. 1,416,501; May 16.
Nolan, Clyde, assignor of one-half to B. F. Winterhoff, Elkhart, Ind. Windmill. No. 1,416,052; May 16.
Norris, Frederick J., Fall River, assignor to Draper Corporation, Hopedale, Mass. Leno or cross-weaving loom. No. 1,416,410; May 16.
North, Charles E., New York, N. Y. Extracting butter fat or oil from milk and cream. No. 1,416,053; May 16.
Norton, Charles H., assignor to Norton Company, Worcester, Mass. Cross-feed mechanism for machine tools. No. 1,416,054; May 16.
Norton, Charles H., assignor to Norton Grinding Company, Worcester, Mass. Truck for waste material. (Reissue.) No. 15,356; May 16.
Norton Company. (See Norton, Charles H., assignor.)
Norton Grinding Company. (See Norton, Charles H., assignor.) (Reissue.)
Nowakowski, Albert J. (See Pedersen, S. C., and Nowakowski.)
Nuesse, Gustav C., Hibbing, Minn. Loader. No. 1,416,118; May 16.
Obermiller, Maximilian W., New York, N. Y. Cut-off valve for pneumatically-operated musical instruments. No. 1,415,894; May 16.
Obermiller, Maximilian W., New York, N. Y. Polishing table. No. 1,414,895; May 16.
Obole, James A., Torrance, Calif. Micrometer attachment. No. 1,416,573; May 16.
O'Connell, Joseph A. (See Boyd, Frank W., assignor.)
O'Connor, John F. (See Miner, W. H., and O'Connor.)
Oehrn, Hans. (See Kaltwasser, O., and Oehrn.)
Ohio Brass Company, The. (See Matthes, Samuel S., assignor.)
Oliver, Ernon V., assignor of five-twelfths to H. Peterson, Portland, Oreg. Box-nailing form. No. 1,416,230; May 16.
Olson, Ole J., Nashua, assignor of one-half to P. R. Rost, Glasgow, Mont. Track-cleaning device. No. 1,416,231; May 16.
Olson, Oscar A., Ames, Iowa. Lettering instrument. No. 1,416,411; May 16.
Oney, William M., Houston, Tex. Oil and gas burner. No. 1,416,574; May 16.
Orell, Svante G. H., Stockholm, Sweden. Buffer device for cars. No. 1,416,377; May 16.
Osborn, Alden E., New York, N. Y. Packing gland. No. 1,416,232; May 16.
Osgood, John L., Buffalo, N. Y. Hand grip for files. No. 1,415,948; May 16.
P. R. Glass Company. (See Jones, Charles H., assignor.)
Pack, Charles, New York, assignor to Doehler Die Casting Company, Brooklyn, N. Y. Die-casting process. No. 1,416,412; May 16.

Packard, Horace N., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Fluid meter. No. 1,416,572; May 16.
Paige, Arthur E., Philadelphia, Pa. Steering wheel. No. 1,416,413; May 16.
Pako Corporation (See Dye, Glen M., assignor.)
Parrish, Rial T. (See Schlagel, Alfred M., assignor.)
Paul, William L., Beaufort, N. C. Coin sorter. No. 1,416,120; May 16.
Payne, Arlie, Paragould, Ark. Multiple-exposure attachment for cameras. No. 1,416,502; May 16.
Peacock, Arthur M., Wigan, England. Vanity case or powder box. No. 1,416,503; May 16.
Peck, Harley T., Lebanon, assignor to The Peters Cartridge Company, Cincinnati, Ohio. Primer for small-arms ammunition. No. 1,416,121; May 16.
Peck, Harley T., Lebanon, assignor to The Peters Cartridge Company, Cincinnati, Ohio. Primer for small-arms ammunitions. No. 1,416,122; May 16.
Peck, Harley T., Lebanon, assignor to The Peters Cartridge Company, Cincinnati, Ohio. Primer for small-arms ammunition. No. 1,416,123; May 16.
Peck Stow & Wilcox Company, The. (See Bullard, Edwin W., assignor.)
Peck, Waldemar C., Naugatuck, Conn. Vehicle tire. No. 1,416,303; May 16.
Pedersen, Soren C., and A. J. Nowakowski, Toledo, Ohio. Shoe holder. No. 1,416,378; May 16.
Peelle Company, The. (See Wexler, Benjamin, assignor.)
Peerless Husker Company. (See Hoy, Clarence A., assignor.)
Penfield, Raymond C. (See Wallace, William W., assignor.)
Peone, Valley V., Chewelah, Wash. Traction engine. No. 1,416,379; May 16.
Perelman, Joseph S., Norwood, R. I. Roof-scraping machine. No. 1,415,949; May 16.
Perfected Window Company. (See Lancaster, George W., assignor.)
Perkins, B. F., & Son, Inc. (See Bartlett, Henry B., assignor.)
Perrine, George L., Gladstone, Oreg. Furnace. No. 1,416,055; May 16.
Peters Cartridge Company, The. (See Peck, Harley T., assignor.)
Petersen, Walter E. C., Chicago, Ill. Chartometer. No. 1,416,380; May 16.
Peterson, Emil A., and W. J. McGinnis, Appleton, Wis. Hydraulic control attachment for beating, bleaching, and washing engines. No. 1,416,056; May 16.
Peterson, Hans. (See Oliver, Ernon V., assginor.)
Peterson, John, Minneapolis, Minn. Storm window. No. 1,416,057; May 16.
Petersson, Gustaf H. (See Jung, K. T. F., and Peterson.)
Petterson, Magnus, Long Beach, Calif. Air-cushion construction. No. 1,416,233; May 16.
Petty, Charles L., Haskell, Okla. Rail joint and car replacer. No. 1,416,504; May 16.
Petyo, John, Gary, Ind. Combined clothes hanger and window ladder. No. 1,416,058; May 16.
Pfeifer, Paul J., assignor to The Virden Company, Cleveland, Ohio. Electric-light fixture. No. 1,416,124; May 16.
Phelps Dodge Corporation. (See Butler, P. P., and Stout, assignors.)
Phonograph Control Corporation. (See Fegley, Victor, assignor.)
Photostat Corporation. (See Greene, John S., assignor.)
Piel, Carl J. (See Pihl, Carl J.)
Pieper, Nicolas, Liege, Belgium. Rifle. No. 1,416,234; May 16.
Pierce, Ralph H., and G. A. Anderson, Eugene, Oreg. Demountable rim. No. 1,416,505; May 16.
Pihl, Carl J. (now by judicial change of name C. J. Piel), Boston, Mass. Thread-cutting die. No. 1,416,059; May 16.
Pike, Clinton B., Birmingham, Ala., assignor, by mesne assignments, to James Thompson & Co., New York, N. Y. Canopy-frame bracket. No. 1,416,414; May 16.
Pioneer Manufacturing Company, The. (See Leatherman, Charles H., assignor.)
Pioneer Suspender Company. (See Croasdale, Olney, assignor.)
Plaut, Menko, assignor to Firm of August Knoche-Wallwitz, G. m. b. H. Halberstadt, Germany. Insulating case for seed-breeding and infection purposes. No. 1,416,575; May 16.
Plummer, Clarence H., Kewaunee, Wis. Shelling peas. No. 1,415,896; May 16.
Poole, Samuel S., Boston, Mass. Flue cleaner. No. 1,415,950; May 16.
Pope, Thomas H., Brooklyn, N. Y. Amusement game. No. 1,416,506; May 16.
Post, Truman W., Providence, R. I., assignor to Willys Corporation, Toledo, Ohio. Headlight. No. 1,416,235; May 16.
Prather, Grills A., Milliken, Colo. Railway-rail anchor. No. 1,416,576; May 16.
Pratt & Whitney Company. (See Hanson, Bengt M. W., assignor.)
Pratt & Whitney Company. (See Knowles, Carroll, assignor.)
Prestwich, Sydney, Wilmington, Del., assignor to The American Laundry Machinery Company, Norwood, Ohio. Centrifugal extractor. No. 1,416,125; May 16.
Price, William G., Yakima, Wash. Box or package handling apparatus. No. 1,416,060; May 16.
Pugh, John V., Coventry, England, assignor, by mesne assignments, to Wire Wheel Corporation of America. Detachable wheel. (Reissue.) No. 15,357; May 16.
Punga, Franklin, Liege, Belgium. Electrical system. No. 1,416,236; May 16.
Pupin, Michael I., Norfolk, Conn., and E. H. Armstrong, Yonkers, N. Y. Radioreceiving system having high selectivity. No. 1,416,061; May 16.
Puriton Manufacturing Corporation. (See Marsico, Geraad R., assignor.)
Putnam, Alden L., assignor, by mesne assignments, to Detroit Pressed Steel Company, Detroit, Mich. Vehicle wheel. (Reissue.) No. 15,358; May 16.
Putt, Harlie O., Elkhart, assignor to Ace Magneto Company, Goshen, Ind. Collector and distributor system for high-tension magnetos. No. 1,416,507; May 16.
Pym, Charles F., Lynn, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J. Binder for use in lasting shoes. No. 1,415,951; May 16.
Quiry, Alfred G., Neuilly-sur-Seine, assignor to P. J. R. Amiard, Paris, France. Soldering iron. No. 1,416,508; May 16.
Rabinovitz, Louis, Brooklyn, N. Y., assignor to Ellis-Foster Company, Coumarone resin and making same. No. 1,416,062; May 16.
Rainey, William J., Philadelphia, Pa. Church communion tray and filling device. No. 1,416,126; May 16.
Rauchbach, Joseph, Newark, N. J. Wardrobe trunk. No. 1,416,415; May 16.
Reddig, Charles E., Long Island, assignor to Western Electric Company, Incorporated, New York, N. Y. Pulley. No. 1,416,063; May 16.
Redington, Paul G., et al. (See Beyer, Clarence B., assignor.)
Redler, Arnold, Flour Mills, Sharpness, England. Means for abstracting pulverulent material from bulk. No. 1,416,416; May 16.
Reed, Charles J., Glenside, Pa. Treating sulphide ores. No. 1,415,897; May 16.
Reed, William M., assignor to Louisville Auto Painting and Trimming Company, Louisville, Ky. Air-cleansing device and ventilator. No. 1,416,381; May 16.
Reiff, Emil. (See Seller, J., and Reiff.)
Reliance Manufacturing Co. (See Hart, David A., assignor.)
Reller, Joseph E., and W. Krecker, Long Beach, Calif.; said Krecker assignor to said Reller. Can opener and sealer. No. 1,416,577; May 16.
Renaud, Aristide F., New Orleans, La., assignor to The Renaud Company, Cincinnati, Ohio. Rivet-feeding mechanism. No. 1,416,509; May 16.
Renaud Company, The. (See Renaud, Aristide F., assignor.)
Research Corporation. (See Hedberg, Carl W. J., assignor.)
Respess, Roland B., New York, N. Y., assignor, by mesne assignments, to Respro Inc., Cranston, R. I. Making artificial leather. No. 1,416,064; May 16.
Respro Inc. (See Respess, Roland B., assignor.)
Reyburn, John R., Fairfield, assignor to American Chain Company, Incorporated, Bridgeport, Conn. Chain nonskid unit. No. 1,416,382; May 16.
Rhoades, Alonzo E., assignor to Draper Corporation, Hopedale, Mass. Feeler mechanism for looms. No. 1,416,510; May 16.
Rhodes, Benjamin D., Milwaukee, Wis. Punch-press guard. No. 1,416,511; May 16.
Rhodes, John A., Macon, assignor of one-third to A. E. Jordan and one-third to H. H. Newman, Sandersville, Ga. Spraying apparatus. No. 1,416,065; May 16.
Riedel, Johannes, Pinnaroo, South Australia, Australia. Tobacco pipe. No. 1,416,066; May 16.
Roadrails Limited. (See Dutton, Frank H., assignor.)
Robinson, Charles M., New Haven, Conn. Canopy for windshields. No. 1,416,304; May 16.
Robinson, James B., Chattanooga, Tenn. Buckle and band hook. No. 1,416,417; May 16.
Robinson, John G., Manchester, England. Means for using puverized fuel in the furnaces of steam generators. No. 1,416,512; May 16.
Rogatchoff, Theodore, Baltimore, Md. Crosshead adjuster. No. 1,416,418; May 16.
Rogillio, Joe B., Houston, Tex. Steam generator. No. 1,415,952; May 16.
Rose, Arthur J., New York, N. Y. Pattern for trousers. No. 1,416,383; May 16.
Rosengart, Sylvain, assignor to La Société dite; Etablissements L. Rosengart Siège Social, Paris, France. Generator for electric lamps. No. 1,416,513; May 16.
Rosheim, Elling I., Roland, Iowa. Mechanism for preparing molds for dental castings. No. 1,416,305; May 16.
Rost, Benjamin H., New York, N. Y. Toothbrush. No. 1,415,898; May 16.
Rost, Peter R. (See Olson, Ole J., assignor.)
Roth, John L. (See Leinberger, J. T., and Roth.)
Rowland, James F. (See Stauffer, J. F., and Rowland.)
Royle, Vernon, Paterson, N. J. Strainer head for tubing machines. No. 1,416,067; May 16.
Safstrom, Esther V. (See Kriesel, Gustave F., assignor.)
Sandell, Henry K., assignor to H. S. Mills, Chicago, Ill. Driving means for phonographs. No. 1,416,306; May 16.
Sandor, John, and J. Toth, Lorain, Ohio. Milk-bottle receptacle. No. 1,415,953; May 16.

Saperstein, Aaron, Brooklyn, N. Y. Surgical instrument. No. 1,416,514; May 16.
Sauers, Myrl M., Santa Cruz, Calif. Wheel puller. No. 1,416,578; May 16.
Saunders, William L., Plainfield, assignor to Ingersoll-Rand Company, Jersey City, N. J. Method of and apparatus for loading. No. 1,416,515; May 16.
Savoie, Leo L., New Orleans, La. Spring wheel. No. 1,416,516; May 16.
Sayre, Ralph E., Pittsburgh, Pa., assignor to Metals Recovery Company, New York, N. Y. Flotation agent and producing the same. No. 1,415,899; May 16.
Schaetzke, Ferdinand A., Milwaukee, Wis. Game. No. 1,416,068; May 16.
Schatte, Charles, New York, N. Y. Phonograph stop mechanism. No. 1,415,954; May 16.
Schauer, Lawrence L., assignor to The Cincinnati Bickford Tool Company, Cincinnati, Ohio. Indicator of stripped threads. No. 1,416,579; May 16.
Schlagel, Alfred M., Montgomery County, near Dayton, assignor to R. T. Parrish, Dayton, Ohio. Tractor. No. 1,416,127; May 16.
Schlesinger, Nathan, Brooklyn, N. Y. Cuspidor. No. 1,415,955; May 16.
Schmelzer, Bruno, Jersey City, N. J. Electric fan. No. 1,416,384; May 16.
Schmidt, Paul, Passaic, N. J. Hat holder. No. 1,416,385; May 16.
Schumacher, Henry C., Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill. Tray-feeding mechanism for box-filling machines. No. 1,415,900; May 16.
Schumacher, Wilhelm, Osnabruck, Germany. Obtaining granular slag. No. 1,416,069; May 16.
Schuette, Johann, Zeesen-Koenigs-Wusterhausen, near Berlin, Germany. Airship. No. 1,416,580; May 16.
Schuette, Johann, Zeesen-Koenigs Wusterhausen, near Berlin, Germany. Air ship. No. 1,416,581; May 16.
Schwalen, John N., New Richmond, Wis. Bag holder. No. 1,415,901; May 16.
Schwenneke, Hans, assignor to Globe Paper Box Company, Chicago, Ill. Cover for boxes. No. 1,416,420; May 16.
Scintilla. (See Billow, Frederic, assignor.)
Scott, Howard R. and L. E., San Jose, Calif. Treating nut kernels to produce food ingredients. No. 1,416,128; May 16.
Scott, John T. (See Wolfe, John W., assignor.)
Scott, Lillian E. (See Scott, Howard R. and L. E.)
Scotti, Alfredo, Whittier, Calif. Traction device. No. 1,416,237; May 16.
Sealed Case Company. (See Shellenberger, John, assignor.)
Sealey, David A., East Orange, N. J. Phonographic sound box. No. 1,416,582; May 16.
Seamweld Equipment Company. (See Fay, Joseph W., assignor.)
Seattle-Astoria Iron Works. (See Anderson, N. B., and Berg, assignors.)
Seibert, Charles F. O., St. Louis, Mo. Spat or legging. No. 1,416,421; May 16.
Seifer, Joseph, and E. Reiff, Los Angeles, Calif. Roofing tile. No. 1,416,583; May 16.
Seiler, Louis, Baltimore, Md. Body-suspended bag or case. No. 1,416,238; May 16.
Selah, Howard A., assignor, by mesne assignments, to J. F. Kress, Johnstown, Pa. Clamp support. No. 1,416,386; May 16.
Sell, Daniel G., Kansas City, Mo. Food product and making the same. No. 1,416,387; May 16.
Severson, Carl J., Minneapolis, Minn. Carbonating device. No. 1,416,307; May 16.
Sewell-Hunt Manufacturing Company, The. (See Sewell, William B., assignor.)
Sewell, William B., assignor, by mesne assignments, to The Sewell-Hunt Manufacturing Company Incorporated, Denver, Colo. Wing for windshields. No. 1,416,422; May 16.
Sewell, William B., assignor, by mesne assignments, to The Sewell-Hunt Manufacturing Company Incorporated, Denver, Colo. Wing for windshields. No. 1,416,423; May 16.
Seymour, James M., Jr., Newark, N. J. Oil burner. No. 1,416,424; May 16.
Sharp, Albert, assignor of one-half to G. Sharp, Bayonne, N. J. Butter cutting and printing machine. No. 1,416,517; May 16.
Sharp, George. (See Sharp, Albert, assignor.)
Shartle, Charles W., Middletown, Ohio. Apparatus for making pulp used in the manufacture of paper. No. 1,415,902; May 16.
Sheberashenko, Andrey, Detroit, Mich. Radius tool. No. 1,415,903; May 16.
Shellenberger, John, Rome, Ga., assignor to Sealed Case Company. Binding-wire-cutting mechanism for wire-bound-box-blank machines and the like. No. 1,416,419; May 16.
Sherman, John Q., Dayton, Ohio. Autographic register. No. 1,416,129; May 16.
Sherman, John Q., Dayton, Ohio. Autographic register. No. 1,416,130; May 16.
Shields, John W. (See Silverman, J. L., and Shields.)
Shockless Electric Corporation. (See Houchin, Alfred W., assignor.)
Shourds, Fred E., Hetland, S. Dak. Hammer. No. 1,415,956; May 16.
Sicard, Hugh C., Buffalo, assignor to United States Ferro Alloys Corporation, New York, N. Y. Preserving electric-furnace linings. No. 1,416,584; May 16.
Silverman, Joseph L., Brooklyn, and J. W. Shields, West Brighton, N. Y. Locking device for water-tight doors. No. 1,416,308; May 16.
Simmon, Karl A., Edgewood Park, Pa., assignor to Westinghouse Electric & Manufacturing Company. System of control. No. 1,416,076; May 16.
Simmons, Lee H., Goldsboro, assignor to Simmons Manufacturing Company, Wilmington, N. C. Center rest bar for boiler grates. No. 1,416,131; May 16.
Simmons Manufacturing Company. (See Simmons, Lee H., assignor.)
Singer Manufacturing Company, The. (See De Voe, Albert H., assignor.)
Sliding Valves Incorporated. (See Wilson, Wylie G., assignor.)
Smiley, William A., assignor to The Inner Braced Seating Company, Kansas City, Mo. Movable chair desk. No. 1,416,132; May 16.
Smiley, William A., assignor to The Inner Braced Seating Company, Kansas City, Mo. Desk top. No. 1,416,518; May 16.
Smith, David J., London, and C. Towl, Forest Gate, Essex, England. Means for automatically operating bulkhead doors and sluice gates. No. 1,416,070; May 16.
Smith, Jesse A. B., Stamford, Conn., assignor to Underwood Typewriter Company, New York, N. Y. Ledger sheet. No. 1,415,904; May 16.
Smith, Jesse A. B., Stamford, Conn., assignor to Underwood Typewriter Company, New York, N. Y. Ledger sheet. No. 1,416,239; May 16.
Smith, John W., assignor to United Stores Supply Company, Minneapolis, Minn. Cleaning powder. No. 1,416,240; May 16.
Smith, Lilly B. (See White, John S., assignor.)
Smith, William A., Phillipsburg, assignor to Ingersoll-Rand Company, Jersey City, N. J. Rock drill. No. 1,415,957; May 16.
Smith, William A., Phillipsburg, assignor to Ingersoll-Rand Company, Jersey City, N. J. Automatic air-feed control for rock drills. No. 1,415,958; May 16.
Smurr, Samuel P., assignor to Variety Manufacturing Company, Chicago, Ill. Closure operator. No. 1,416,071; May 16.
Sobol, Leo, and G. M. Marr, Brooklyn, N. Y. Chip blower for dentists. No. 1,416,241; May 16.
Society Etablissements Henry Crochat, The. (See Colardeau, Emmanuel L. P., assignor.)
Soloway, Saul S. (See Freedman, Abraham A.)
Sopp, Albert E., Montreal, Quebec, Canada. Card holder for railway cars. No. 1,416,072; May 16.
Sorrells, James A., Gainesville, Ga. Tape-selvage stop-motion stand. No. 1,416,133; May 16.
Sparr, Lars, Stockholm, Sweden. Integrating apparatus for graphic integration calculations. No. 1,416,519; May 16.
Spicer, Clarence W., Plainfield, assignor to Spicer Mfg. Corporation, South Plainfield, N. J. Flexible coupling. No. 1,416,134; May 16.
Spicer Mfg. Corporation. (See Spicer, Clarence W., assignor.)
Splitdorf Electrical Company. (See Borger, Henry E., assignor.)
Splitdorf Electrical Company. (See Mason, Charles T., assignor.)
Spurk, Peter N., and R. Stramitz, Detroit, Mich. Nut-tapping machine. No. 1,416,135; May 16.
Stables, Arthur, Los Angeles, Calif. Separator for nut meats from broken nuts. No. 1,416,585; May 16.
Stalder, John W., Lincoln, Nebr. Post. No. 1,416,586; May 16.
Standard Automatic Machine Company. (See Gosselin, Alphonse J., assignor.)
Standard Parts Company, The. (See Theberath, Joseph C., assignor.)
Stark, Thomas, Chicago, Ill. Dipping machine. No. 1,415,959; May 16.
Starka, Edward O., Chicago, Ill. Tack machine. No. 1,416,136; May 16.
Stauffer, John F., and J. F. Rowland, Tutwiler, Miss. Bale tie. No. 1,416,587; May 16.
Steedman, Henry P. G., London, England, assignor, by mesne assignments, to W. Boyd, New York, N. Y. Reproducing oil paintings. No. 1,416,388; May 16.
Steel Products Company, The. (See Garman, Harry B., assignor.)
Stehl, Conrad, Oakland, Calif. Pencil. No. 1,416,137; May 16.
Steinbach, Henry, assignor to J. J. Steinbach, Scranton, Pa. Coal chute. No. 1,416,073; May 16.
Steinbach, John J. (See Steinbach, Henry, assignor.)
Steinemann, William A., Los Angeles, Calif. Chewing gum. No. 1,416,242; May 16.
Sternau, S., & Company. (See Meikle, George S., assignor.)
Stevens, Edward W., Detroit, Mich., assignor to Chicago Pneumatic Tool Company, New York, N. Y. Butt for sand rammers. No. 1,415,905; May 16.
Stewart, David N. (See Cooper, Horace C., assignor.)
Stickney, Burnham C., Elizabeth, N. J., assignor to Underwood Computing Machine Company, New York, N. Y. Combined typewriting and computing machine. No. 1,416,520; May 16.

Stockton, Richard, et al. (See Boone, Robert G., assignor.)
Stoltman, Frank, and W. Sumner, Minneapolis, Minn. Refrigerator. No. 1,416,389; May 16.
Storle, Ole O., Tacoma, Wash. Transmission clutch and gear. No. 1,416,074; May 16.
Stout, Harry H. (See Butler, P. P., and Stout.)
Stout, Willim M., Halstead, Kans. Trowel. No. 1,416,521; May 16.
Straight, Frank H. (See Straight, Fred M., assignor.)
Straight, Fred M., assignor of one-half to F. H. Straight, Bristol, R. I. Cymbal holder. No. 1,416,522; May 16.
Stramitz, Roman. (See Spurk, P. N., and Stramitz.)
Strobel, Jacob, New York, N. Y. Life preserver. No. 1,416,523; May 16.
Strochalen, Paul K., Oakland, Calif. Door opening and closing apparatus. No. 1,416,138; May 16.
Stuart, William A., Tacoma, Wash. Water-elevating device. No. 1,416,075; May 16.
Sturrock, John, Chicago, Ill., assignor to International Harvester Company. Gag holder. No. 1,415,960; May 16.
Sturtevant, B. F., Company. (See de Clamecy, Philippe, assignor.)
Suedmeyer, Louis, assignor to E. Keller, St. Louis, Mo. Tobacco pipe. No. 1,416,425; May 16.
Sullivan Machinery Company. (See Halleck, Frank H., assignor.)
Sumner, Walter. (See Stoltman, F., and Sumner.)
Surridge, Joseph F., Chicago, Ill. Pressed steel wheel and producing the same. No. 1,416,524; May 26.
Sutherland, William. (See Goodwin, A. N., and Sutherland.)
Swanson, August, Cedar Rapids, Iowa. Ironing board. No. 1,415,961; May 16.
Sweely, Burton T. (See Bellamy, H. T., and Sweely.)
Swezey, Benjamin F., Buffalo, Minn. Food. No. 1,416,588; May 16.
Swoyer, Harry. (See Blunt, J. G., and Swoyer.)
Tanner, De Witt C., Glen Ridge, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. System for electrical signaling. No. 1,416,077; May 16.
Taylor, Aca C., Kellyville, Okla. Resilient wheel. No. 1,416,078; May 16.
Taylor, Boone U., Nashville, Tenn., assignor of one-half to J. H. Campbell, C. A. Nelson, H. C. Moore, Jr., and A. D. McKnight. Murfreesboro, Tenn. Engine starter. No. 1,415,962; May 16.
Taylor, Herbert A., Sheffield, Ala. Retainer for lightning rods or ground wires. No. 1,416,525; May 16.
Taylor-Mayhew Pump Co. (See Cook, Alfred B., assignor.)
Taylor, Vance E., St. Louis, Mo. Interlocking tile. No. 1,415,906; May 16.
Telescope Cot Bed Company. (See Miller, Lloyd J., assignor.)
Theberath, Joseph C., assignor to The Standard Parts Company, Cleveland, Ohio. Vehicle wheel rim. No. 1,415,963; May 16.
Thomas, Adelbert A., assignor to Chicago Case Manufacturing Company, Chicago, Ill. Carrying case. No. 1,416,139; May 16.
Thomas Spark Plug Co. (See Thomas, William S., assignor.)
Thomas, William S., assignor to Thomas Spark Plug Co., Roselle Park, N. J. Securing spark-plug electrodes to conducting heads. No. 1,416,243; May 16.
Thomasson, Adam P., Chicago, Ill. Heating stove. No. 1,416,140; May 16.
Thompson, Eugene A., Syracuse, N. Y. Winding and dyeing machine. No. 1,415,964; May 16.
Thompson, George K., Maplewood, N. J., assignor to American Telephone and Telegraph Company. Means for equalizing transmission over lines of different electrical characteristics. No. 1,415,907; May 16.
Thompson, Henry B., assignor of one-third to K. D. Thompson and one-third to J. Fitzsimmons, San Antonio, Tex. Vapor medicating apparatus. No. 1,416,244; May 16.
Thompson, James, & Co. (See Pike, Clinton B., assignor.)
Thompson, John S., Chicago, Ill. Printing machine. No. 1,416,390; May 16.
Thompson, Kenna D., et al. (See Thompson, Henry B., assignor.)
Thurston, David W. (See Gass, E. J., and Thurston.)
Tofting, Neils T., Bradgate, Iowa. Jar closure. No. 1,415,908; May 16.
Tomasek, Frank, Chicago, Ill. Automobile bumper. No. 1,416,426; May 16.
Toth, John. (See Sandor, J., and Toth.)
Tower, Max L., assignor to Niagara Sprayer Co., Middleport, N. Y. Insecticide. No. 1,416,526; May 16.
Towl, Charles. (See Smith, D. J., and Towle.)
Townsend, Percival J., Redwood City, Calif. Electric fireless cooker. No. 1,416,527; May 16.
Trautwein, Jacob O., Chicago, Ill. Chart holder. No. 1,416,141; May 16.
Trost, Edward, Jacksonville, Fla. Escapement mechanism. No. 1,416,528; May 16.
Trumble, Chauncey B., Hartford, Conn. Fishing-snell carrier. No. 1,416,142; May 16.
Tumey, Charles H., Sr., San Antonio, Tex. Adjustable light visor. No. 1,415,245; May 16.
Tunnicliff, Frank, Burslem, Stoke-on-Trent, England. Pouring spout. No. 1,416,309; May 16.
Turck, Joseph A. V., Wilmette, assignor to Felt & Tarrant Mfg. Co., Chicago, Ill. Bearing. No. 1,416,246; May 16.
Turner, Harold H. (See Long, A. R., and Turner.)
Turner, Jack. (See Crisp, Thomas and T. F. M., assignors.)
Turner, Roy J., San Francisco, Calif, assignor to Efficiency File Co., Chicago, Ill. Index tab. No. 1,416,529; May 16.
Twining, Frank, B., assignor to Geo. P. Ide & Company, Inc., Troy, N. Y. Soft turndown collar. No. 1,416,530; May 16.
Twinsight Optical Company. (See Bugbee, Lucian W., assignor.)
U. S. Industrial Alcohol Co. (See Hayes, Albert, assignor.)
Ullom, Ralph B., assignor to The Cyclone Manufacturing Company, Urbana, Ind. Coop and feeding park there for. No. 1,416,531; May 16.
Underwood Computing Machine Company. (See Hanson, Hans, assignor.)
Underwood Computing Machine Company. (See Hausman, Walter J., assignor.)
Underwood Computing Machine Company. (See Stickney, Burnham C., assignor.)
Underwood Computing Machine Company. (See Waldheim, John, assignor.)
Underwood Typewriter Company. (See Howell, Arthur E., assignor.)
Underwood Typewriter Company. (See Smith, Jesse A. B., assignor.)
Union Switch & Signal Company, The. (See McCann, Ronald A., assignor.)
United Shoe Machinery Corporation. (See Conner, Charles E., assignor.)
United Shoe Machinery Corporation. (See Davey, John F., assignor.)
United Shoe Machinery Corporation. (See La Chapelle, Fred N., assignor.)
United Shoe Machinery Corporation. (See Latham, Albert, assignor.)
United Shoe Machinery Corporation. (See Mayo, Benjamin F., assignor.)
United Shoe Machinery Corporation. (See Morrison, Lewis J., assignor.)
United Shoe Machinery Corporation. (See Pym, Charles F., assignor.)
United Shoe Machinery Corporation. (See Webb, Horace D., assignor.)
United Shoe Machinery Corporation. (See White, Melbourne W., assignor.)
United Shoe Machinery Corporation. (See Winkley, Erastus E., assignor.)
United States Ferro Alloys Corporation. (See Sicard, Hugh C., assignor.)
United Stores Supply Company. (See Smith, John W., assignor.)
Universal Electric Welding Company. (See Lachman, Laurence S., assignor.)
Universal Turbine Company, The. (See Anderson, Emil, assignor.)
Vaaler, Jens, assignor to Clemetsen Company, Chicago, Ill. Typewriter desk. No. 1,415,909; May 16.
Valente, Umberto A., Brooklyn, N. Y. Attaching handles and the like. No. 1,416,532; May 16.
Van Brunt, John, Flushing, assignor to Combustion Engineering Corporation, New York, N. Y. Valve. No. 1,416,391; May 16.
Van Houten, John M., Beacon, N. Y. Shingle mold. No. 1,416,079; May 16.
Vapor Car Heating Company. (See Geissinger, Harry G., assignor.)
Variety Manufacturing Company. (See Backman, Herman, assignor)
Variety Manufacturing Company. (See Smurr, Samuel P., assignor.)
Vasselli, Anthony, Newark, N. J., assignor, by mesne assignments, to Harriman National Bank of the City of New York, trustee. Turntable. No. 1,416,080; May 16.
Verona Tool Works. (See Knell, Charles H., assignor.)
Verona Tool Works. (See Woodings, Emanuel, assignor.)
Virden Company, The. (See Pfeifer, Paul J., assignor.)
Volkman, Henry, Manchester, N. H. Hand truck. No. 1,416,427; May 16.
Wagner, William F., Washington, D. C. Suit hanger. No. 1,416,143; May 16.
Wagstaff, Richard A., Salt Lake City, Utah, assignor to American Smelting and Refining Company, New York, N. Y. Blast-furnace tuyère cap for pulverized coal. No. 1,415,910; May 16.
Waldheim, John, Elizabeth, N. J., assignor to Underwood Computing Machine Company, New York, N. Y. Combined typewriting and computing machine. No. 1,416,428; May 16.
Wales, Alfred B., Whitman, assignor to L. Muther, Newton, Mass. Folding and strip-attaching mechanism. No. 1,416,310; May 16.
Wallace, William W., assignor to R. C. Penfield, Chicago, Ill. Transfer car. No. 1,416,589; May 16.
Ward Leonard Electric Company. (See Burns, Dawson J., assignor.)
Waterbury Clock Co. (See Horn, Ernest H., assignor.)

Waterman, Herman, New York, N. Y. Burner. No. 1,415,965; May 16.
Watt, Delton C., and F. A. Grearson, Barre, Vt. Automobile top. No. 1,416,659; May 16.
Watters, George M., and W. A. Brown, Minneapolis, Minn. Broom and brush handle. No. 1,416,533; May 16.
Webb, Horace D., Rochester, N. Y., assignor to United Shoe Machinery Corporation, Paterson, N. J. Edge-trimming machine. No. 1,415,966; May 16.
Wedow, Gustav B., Chicago, Ill. Lithographing. No. 1,416,311; May 16.
Weeks, Seba R., and C. C. Brown, Campbell, Calif. Rail joint. No. 1,416,144; May 16.
Werner, Carrie, St. Louis, Mo. Sifter. No. 1,416,145; May 16.
West Disinfecting Company. (See Kooperstein, Louis, assignor.)
Western Blower Company. (See Dudley, William L., assignor.)
Western Electric Company. (See Allen, R. M., and Neill, assignors.)
Western Electric Company. (See Allen, Roy M., assignor.)
Western Electric Company. (See Andrick, W. P., and Dahl, assignors.)
Western Electric Company. (See Bellamy, H. T., and Sweely, assignors.)
Western Electric Company. (See Clement, Lewis M., assignor.)
Western Electric Company. (See Curtis, Austen M., assignor.)
Western Electric Company. (See De Coster, Charles J., assignor.)
Western Electric Company. (See Meade, Henry L., assignor.)
Western Electric Company. (See Reddig, Charles E., assignor.)
Western Electric Company. (See Tanner, De Witt C., assignor.)
Western Union Telegraph Company, The. (See Atherton, Albert, assignor.)
Western Union Telegraph Company, The. (See Janson, George W., assignor.)
Westinghouse Electric and Manufacturing Company. (See Albrecht, John H., assignor.)
Westinghouse Electric & Manufacturing Company. (See Brace, Porter H., assignor.)
Westinghouse Electric & Manufacturing Company. (See Brown, James M., assignor.)
Westinghouse Electric & Manufacturing Company. (See Carpenter, Cranston H., assignor.)
Westinghouse Electric & Manufacturing Company. (See Colby, Ora A., assignor.)
Westinghouse Electric & Manufacturing Company. (See Eaton, George M., assignor.)
Westinghouse Electric & Manufacturing Company. (See Eschholz, Otto H., assignor.)
Westinghouse Electric Products Company. (See Forshee, Frank F., assignor.)
Westinghouse Electric & Manufacturing Company. (See Harrison, William E., assignor.)
Westinghouse Electric & Manufacturing Company. (See Hellmund, Rudolph E., assignor.)
Westinghouse Electric & Manufacturing Company. (See Hibbard, Lloyd J., assignor.)
Westinghouse Electric & Manufacturing Company. (See Irwin, George R., assignor.)
Westinghouse Electric Manufacturing Company. (See Johnston, Howard H., assignor.)
Westinghouse Electric & Manufacturing Company. (See Kempton, Willard H., assignor.)
Westinghouse Electric and Manufacturing Company. (See Lamme, Benjamin G., assignor.)
Westinghouse Electric & Manufacturing Company. (See Meyer, Harry R., assignor.)
Westinghouse Electric & Manufacturing Company. (See Simmon, Karl A., assignor.)
Wetzel, George W., Macomb, Ill. Silo. No. 1,416,534; May 16.
Wexler, Benjamin, assignor to The Peelle Company, Brooklyn, N. Y. Expansion shoe for elevator doors. No. 1,416,247; May 16.
Whaley, Cyrus T., Norfolk, Va. Trolley guard for tunnels. No. 1,416,535; May 16.
Whaley, Cyrus T., Norfolk, Va. Trolley guard for tunnels. No. 1,416,536; May 16.
Whipple, Ralph, assignor of one-half to C. H. Mitchell, Detroit, Mich. Plow. No. 1,416,392; May 16.
White, Edward N., et al., trustees. (See Eidmann, Frank L.)
White, James A., Galt, Ontario, Canada. Brush handle. No. 1,416,081; May 16.
White, John S., Wilmington, Del., assignor to L. B. Smith, Atlanta, Ga. Portable housing device. No. 1,416,146; May 16.
White, Melbourne W., Lynn, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J. Lining-trimming machine. No. 1,415,967; May 16.
Wiberg, Charles A., Duluth, Minn. Shock absorber. No. 1,416,537; May 16.
Wichman, Frank S., Chicago, Ill. Separator for boiler-washing systems. No. 1,416,538; May 16.
Wilcox, Henry M., assignor to F. C. L. D'Aix, Chicago, Ill. Method of and apparatus for recovering copper. No. 1,416,147; May 16.
Wilhelms, Harry, Philadelphia, Pa. Valve. No. 1,416,590; May 16.
Wilhelms, Harry, Philadelphia, Pa. Valve. No. 1,416,591; May 16.
Willett, Tomaso J., Louisville, Ky. Automobile and vehicle locking device. No. 1,416,393; May 16.
Williams, Charles P., Cleveland, Ohio. Floor-scrubbing board. No. 1,416,429; May 16.
Williams, James H., Baltimore, Md. Grand piano. No. 1,416,248; May 16.
Williams, Ralph E., Los Angeles, Calif. Clamp for spotlight brackets and the like. No. 1,416,148; May 16.
Williams, White & Company. (See Kline, George P., assignor.)
Williams, William E., Chicago, Ill. Vehicle disk wheel. No. 1,416,149; May 16.
Williamson, Charles H. S., Chicago, Ill. Multiple-shelf incinerator. No. 1,416,430; May 16.
Willys Corporation. (See Post, Truman W., assignor.)
Wilms, William G., San Pedro, Calif. Tractor. No. 1,416,539; May 16.
Wilson, Emery J., Cleveland, Ohio. Rotary speed indicator. No. 1,416,082; May 16.
Wilson, Emery J., Cleveland, Ohio. Rotary speed indicator. No. 1,416,083; May 16.
Wilson, Emery J., Cleveland, Ohio. Rotary speed indicator. No. 1,416,084; May 16.
Wilson, Leslie A., Berlin, Wis. Repair stand. No. 1,415,968; May 16.
Wilson, Welder & Metals Company. (See Churchward, Alexander, assignor.)
Wilson, Wylie G., New York, N. Y., assignor to Sliding Valves Incorporated. Valve. No. 1,416,431; May 16.
Wimmer, Karl H., Holzhafen, Bremen, Germany, assignor to Hydrogenated Oil Company, St. Louis, Mo. Catalyzer. No. 1,416,249; May 16.
Wingquist, Sven G., assignor to Aktiebolaget Svenska-Kullagerfabrik, Gottenborg, Sweden. Roller bearing. No. 1,415,969; May 15.
Wingqvist, Nils, Tollarp, Sweden. Rotating kiln for burning cement and the like. No. 1,415,970; May 16.
Winkley, Erastus E., Lynn, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J. Forming stacks of wedge lifts. No. 1,416,085; May 16.
Winter, Andrew, Covington, Ky. Collapsible crate. No. 1,416,150; May 16.
Winterhoff, B. F. (See Nolan, Clyde, assignor.)
Wire Wheel Corporation of America. (See Pugh, John V., assignor.) (Reissue.)
Wismiewski, Walter, assignor of one-half to J. Baramski, Syracuse, N. Y. Combination lock. No. 1,416,250; May 16.
Wittenmyer, Carlos, Detroit, Mich. Vaporizer. No. 1,416,151; May 16.
Wolfe, John W., assignor of one-third to J. T. Scott, Washington, D. C. Air hammer. No. 1,416,086; May 16.
Wood, William G., assignor to Berkeley Light Corporation, San Francisco, Calif. Focusing device. No. 1,416,394; May 16.
Woodings, Emanuel, Verona, assignor to Verona Tool Works, Pittsburgh, Pa. Rail spring. No. 1,416,152; May 16.
Woods, Leonard G., Pittsburgh, Pa. Brick pallet. No. 1,416,432; May 16.
Woodward, Eugene A. (See Woodward, Irving C., assignor.)
Woodward, Irving C., Syracuse, N. Y., assignor to E. A. Woodward, Iron Mountain, Mich. Nut blank and locking nut. No. 1,416,087; May 16.
Woolard, Herbert, Stevenage, and J. H. F. Lodge, deceased, New Barnet, England; C. A. Lodge, administratrix. Folding door, partition, and wall. No. 1,416,540; May 16.
Worthington Pump and Machinery Corporation. (See Barrett, Charles G., assignor.)
Worthington Pump and Machinery Corporation. (See Bourne, Phillips P., assignor.)
Wright, John E., Pleasant Lake, Ind. Flash-light holster. No. 1,416,153; May 16.
Wyckoff, J. Lewis, et al, trustees. (See Eidmann, Frank L.)
Young, Frederick D., Hollidaysburg, Pa. Horseshoe. No. 1,416,541; May 16.
Young, Walter C., Brooklyn, N. Y. Milk-box. No. 1,416,542; May 16.
Zajac, Michael. (See Gazdzicki, Joseph, assignor.)

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

Alsopp, George A., Newark, N. J. Finger ring. No. 60,949; May 16.

Best, H. A., Lamp Company. (See Best, Harry A.)

Best, Harry A., assignor of one-half to H. A. Best Lamp Company, Chicago, Ill. Lamp. No. 60,950; May 16.

Cummings, Frank, Chicago, Ill. Phonograph cabinet. No. 60,951; May 16.

Curtiss, George E. (See Smith, C. F., and Curtiss.)

Goodenow, Lucene L., Battle Creek, Mich. Statuette. No. 60,952; May 16.

Hollingshead, William B., Mount Vernon, N. Y. Phonograph cabinet. No. 60,953; May 16.

Hornquist, Frank, Mount Jewett, Pa. Rubber heel. No. 60,954; May 16.

Horsman, E. I., & Aetna Doll Co. (See Trowbridge, Helen F., assignor.)

Humphrey, Hubert R., Kalamazoo, Mich. Gas heater. No. 60,955; May 16.

Juthe, John C., Allston, Mass. Wheeled toy. No. 60,956; May 16.

Klein, Benjamin F. (See Pfleager, Roscoe C., assignor.)

Kodama, Hisano. (See Kodama, Seizo, assignor.)

Kodama, Seizo, assignor of one-half to H. Kodama, San Francisco, Calif. Doll. No. 60,957; May 16.

Kuh, Louis, San Francisco, Calif. Child's garment. No. 60,958; May 16.

Levine, Louis, Brooklyn, N. Y. Lighting-fixture arm. No. 60,959; May 16.

Macomber, Lewis E., New York, N. Y., assignor to Seth Thomas Clock Co., Thomaston, Conn. Clock case. Nos. 60,960–1; May 16.

Malone, Annie M., St. Louis, Mo. Sealing tape. No. 60,962; May 16.

Mintz, Harry, Boston, Mass. Hammock. No. 60,963; May 16.

Pfleager, Roscoe C., assignor to B. F. Klein, Cleveland, Ohio. Lighting fixture. No. 60,964; May 16.

Schoeck, Frank, Syracuse, N. Y. Sewing cabinet. No. 60,965; May 16.

Silliman, William F., Philadelphia, Pa. Cradle chair. No. 60,966; May 16.

Slocum, Charles D., Topeka, Kans. Smoker's stand. No. 60,967; May 16.

Smith, Charles F., and G. E. Curtiss, New Britain, Conn. Electric heater. No. 60,968; May 16.

Sundstrand, Carl A., Rockford, Ill. Child's vehicle. No. 60,969; May 16.

Thomas, Seth, Clock Co. (See Macomber, Lewis E., assignor.)

Trowbridge, Helen F., Upper Montclair, N. J., assignor to E. I. Horsman & Aetna Doll Co., Inc., New York, N. Y. Doll. No. 60,970; May 16.

Western Reserve Rubber Company, The. (See Witten, Arthur P., assignor.)

Witten, Arthur P., assignor to The Western Reserve Rubber Company, Akron, Ohio. Toy balloon. No. 60,971; May 16.

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

Ace Specialties Corp., New York, N. Y. Sanitary napkins, aprons, belts, and diapers, and surgeons' rubber gloves. No. 154,854; May 16.

Acme Abrasive Company, Chicago, Ill. Grinding and polishing stones. No. 155,134; May 16.

Acme Screen Company, Dallas, Tex. Window and door screens. No. 154,855; May 16.

Acme Shear Company, The, Bridgeport, Conn. Scissors and shears. No. 154,856; May 16.

Aitchison & Company, New York, N. Y. Cases, boxes, and containers for eyeglasses, opera glasses, etc. No. 154,857; May 16.

Ajax Rope Company, Inc., New York, N. Y. Manila, sisal, wire, and marline-covered wire rope. No. 154,858; May 16.

Aktiebolaget Ablov Osakeyhtio, Helsingfors, Finland. Locks. Nos. 154,859–60; May 16.

Allen-Square Company, Spencer, Mass. Leather shoes. No. 155,135; May 16.

American Chain Company, Inc., New York, N. Y., and Bridgeport, Conn. Certain chains, loops, rings, and hooks, etc. No. 154,861; May 16.

American Lady Corset Co., Detroit, Mich. Corsets and brassières. No. 154,862; May 16.

American Safety Razor Corporation, Brooklyn and New York, N. Y. Shaving brushes. No. 154,863; May 16.

American Steel & Wire Company of New Jersey, The, Cleveland, Ohio. Wire for pianos and other musical instruments. No. 154,864; May 16.

American Steel & Wire Company of New Jersey, The, Cleveland, Ohio. Wire rope and cables and aeroplane cables. No. 154,865; May 16.

American Tobacco Company, The, New York, N. Y. Tobacco and cigarettes. No. 154,866; May 16.

Anaconda Copper Mining Company, Anaconda and Butte, Mont., and New York, N. Y. Fertilizers, those containing phosphate. No. 154,867; May 16.

Arrow Film Corporation, The, New York, N. Y. Motion pictures. No. 154,868; May 16.

Atkins-Blakeney Chemical Company, Scranton, Pa. Tooth paste. No. 154,869; May 16.

Atlas Publishing Company, The, New York, N. Y. Periodicals published weekly. No. 154,870; May 16.

Auer, John F., Philadelphia, Pa. Toilet paper. No. 154,871; May 16.

Automatic Steam Carburetor Company, Chicago, Ill. Vaporizers for applying water vapor to the cylinders of internal-combustion engines. No. 154,872; May 16.

Ayer, M. Isabel, Boston, Mass. Fountain pens. No. 155,136; May 16.

Badois Louis, Paris, France. Fountain pens. No. 154,873; May 16.

Baker, R. & L., Company, Cleveland, Ohio. Automatic make-and-break mechanisms for electric circuits. No. 155,137; May 16.

Balfour, Arthur, & Co., Limited, Sheffield, England. Steel and iron in certain forms, certain steels and steel castings, etc. No. 154,874; May 16.

Baynton Mills, Philadelphia, Pa. Sweaters, sweater coats, hosiery, gloves. No. 154,875; May 16.

Beacon Chocolate Company, Boston, Mass. Carbonated, maltless soft drinks and sirups therefor. Nos. 154,876–7; May 16.

Beckley-Ralston Co., The, Chicago, Ill. Automobile-radiator-solution testers. No. 154,878; May 16.

Benjamin, Pernard, Dayton, Ohio. Furniture polish. No. 154,879; May 16.

Benoit & Mathieu, Montreal, Quebec, Canada. Phonographs and parts therefor and phonograph records. No. 155,012; May 16.

Berberian, John M., Boston, Mass. Cigarettes and cigarette tobacco. No. 154,880; May 16.

Berkowitz Envelope Company, Kansas City, Mo. Writing paper commonly known as bond paper. No. 155,138; May 16.

Biffar, Fred, Jr., Chicago, Ill. Revolvers. Nos. 155,139–40; May 16.

Birkenfeld, Strauss & Co., New York, N. Y. Women's and children's underwear, children's dresses, and women's shirt waists or blouses. No. 155,141; May 16.

Blatt, Armand V., New York, N. Y. Hair nets. No. 154,881; May 16.

Borromite Company of America, Chicago, Ill. Water-softening apparatus. No. 154,882; May 16.

Brayley, Arthur W., Dorchester, Mass. Periodical published monthly. No. 154,883; May 16.

Briggs, Ray E., Los Angeles, Calif. Liquid automobile polish. No. 154,884; May 16.

Brittains Limited, Cheddleton, England. Certain papers. No. 154,885; May 16.

Brockton Rand Company, Montello, Brockton, Mass. Welting. No. 154,886; May 16.

Brompton Pulp & Paper Co. Limited, The, Montreal, Quebec, Canada. Newsprint paper. No. 154,887; May 16.

Brown Durrell Co., Boston, Mass. Certain articles of clothing. No. 154,888; May 16.

Brunswick-Balke-Collender Company, The, Chicago, Ill. Sound reproducers for phonographs. No. 154,889; May 16.

Brunswick-Balke-Collender Company, The, Wilmington, Del., and Chicago, Ill. Bowling-alley ball returns. No. 154,890; May 16.

Buescher Band Instrument Co., Elkhart, Ind. Saxophones. No. 154,891; May 16.

Burson Knitting Company, Rockford, Ill. Hosiery. No. 155,142; May 16.

Butler, Marie A., New York, N. Y. Powder puffs. No. 154,892; May 16.

California Packing Corporation, San Francisco, Calif. Grape, pineapple, and loganberry juices. No. 154,893; May 16.

Capen, George H., Canton Junction, Mass. Cedar-oil polish. No. 154,894; May 16.

Capen, George H., Canton Junction, Mass. Mucilage and library paste. No. 154,895; May 16.

Caravel Company, Inc., New York, N. Y. Certain articles of clothing. No. 154,896; May 16.

Carpenter Steel Company, The, Reading, Pa. Alloy steels in bars, billets, and shapes. No. 154,897; May 16.

Carroll Engineering Co., The, Dayton, Ohio. Special metal-working machinery and production tools. No. 154,898; May 16.

Cassriel, Alexander, Company, Chicago, Ill. Dental cement, alloy, temporary stopping. No. 154,899; May 16.

Cathcart, Herbert J., Plainfield, N. J., and New York, N. Y. Cotton, woolen, or silk piece goods. No. 155,143; May 16.

Celite Products Company, Los Angeles, Calif., and New York, N. Y. Material for separating impurities, etc., from fluids. No. 154,900; May 16.

Central Brass Manufacturing Co., The, Cleveland, Ohio. Cocks and faucets. No. 155,144; May 16.

Central-Spécialités Societe Anonyme, Paris, France. Hygienic powder for the toilet and bath, dentifrices, etc. No. 154,901; May 16.

Chandler, John H., Newnan, Ga. Cigars. No. 154,902; May 16.

Chesterman-Leeland Co., Philadelphia, Pa. Hernial trusses. No. 154,903; May 16.

Chicago Granitine Manufacturing Company, Chicago, Ill. Garbage and ash receptacles. No. 154,904; May 16.

Choate, Charles N., Bridgeport, Conn. Nonferrous ingots of copper, nickel, and zinc and alloys for same. No. 154,905; May 16.

Cincinnati Shaper Co., The, Cincinnati, Ohio. Shapers and crank planers. No. 155,145; May 16.

Clayes, Margaret, San Francisco, Calif. Certain receptacles. No. 154,906; May 16.

Cleveland Tractor Company, The, Euclid, Ohio. Cultivators, plows, harrows, etc., and hitches. No. 154,907; May 16.

Commercial Paste Company, The, Columbus, Ohio. Boiler and furnace pastes. No. 155,184; May 16.

Coors Porcelain Company, The, Golden, Colo. Certain articles of laboratory porcelain ware. No. 155,146; May 16.

Corona Rubber Manufacturing Co., Philadelphia, Pa. Golf balls. No. 154,909; May 16.

Cox, Rupert, Kansas City, Mo. Visible measuring gasoline-dispensing pumps and attachments for gasoline-measuring dispensing pumps. No. 155,147; May 16.

Craig Golfmeter Co., San Francisco, Calif. Captive-ball device for playing and practice of games—namely, golf. No. 154,910; May 16.

Crescent Belt Fastener Company, New York, N. Y. Fasteners, plates, etc., for machinery belting. No. 154,911; May 16.

Crown Oil & Wax Co. of Delaware, Baltimore, Md. Gasoline and fuel oils. No. 154,912; May 16.

Cumberland Tobacco Works, Inc., Nashville, Tenn. Plug tobacco. No. 154,913; May 16.

Darling Valve & Manufacturing Company, Williamsport, Pa. Certain valves and unions and indicator posts, floor stands, etc. No. 154,914; May 16.

Dayton Color Works Company, The, Dayton, Ohio. Black ready-mixed paint. No. 154,915; May 16.

Demmi Cigar Co., Tampa, Fla. Cigars, cigarettes, cheroots, stogies, chewing tobacco, etc. No. 154,916; May 16.

Diamond Iron Works, Minneapolis, Minn. Oil engines. No. 154,917; May 16.

Disston, Henry, & Sons, Incorporated, Philadelphia, Pa. Levels, bevels, squares, and cutting, marking, and mortise gauges. No. 154,918; May 16.

Dixon, Joseph, Crucible Company, Jersey City, N. J. Rubber erasers. No. 154,983; May 16.

Dougherty, A., New York, N. Y. Playing cards. No. 155,148; May 16.

Dragon Paper Mfg. Co. Inc., New York and Long Island City, N. Y. Waxed paper. No. 154,919; May 16.

Drouin, Gedea G., St. Eustache, Quebec, Canada. Fertilizers. No. 154,945; May 16.
Dunn-Pen Company, Inc., New York, N. Y. Fountain pens. Nos. 154,920–1; May 16.
Duplex Envelope Company, The, Quincy, Ill. Envelopes for mailing articles and for correspondence. No. 155,149; May 16.
Dyktor Brothers, Inc., New York, N. Y. Carbon steel, high-speed or alloyed tool steel. No. 154,922; May 16.
Eagle Lock Co., Terryville, Conn. Padlocks. No. 154,923; May 16.
Eberly, David A., Alameda, Calif. Castile soap. No. 154,924; May 16.
Eilert Beverage Company, The, Cleveland, Ohio. Carbonated beverages. No. 154,925; May 16.
Endres, Alfred, New York, N. Y. Malt extract. No. 154,926; May 16.
Enterprise Manufacturing Company, The, Akron, Ohio. Fishing reels. No. 154,927; May 16.
Erickson, C. E., Co. Inc., Des Moines, Iowa. Towel and broom holders. No. 154,928; May 16.
Eyers Drug & Chemical Co., Gloucester, Mass. Skin ointment. No. 154,929; May 16.
Faupel, William, London, England. Medicine used against cancer, stomach and liver troubles, and as a blood purifier. No. 154,930; May 16.
Fayart, Ernest J., Springfield, Ill. Abdominal bandages and supporters. No. 154,931; May 16.
Federal Phonograph Co. Inc., assignor to Paul B. Klugh, New York, N. Y. Phonographs. No. 154,932; May 16.
Finkl, A., & Sons Co., Chicago, Ill. Steel dies. No. 154,933; May 16.
Firth-Sterling Steel Company, McKeesport, Pa. Tool steel and die steel in the form of bars, blocks, and disks. No. 154,934; May 16.
Fischer, Carl, New York, N. Y. Violin strings. No. 154,935; May 16.
Flood, William Company, The, Cleveland, Ohio. Liquid stains. No. 155,127; May 16.
Follansbee Brothers Company, Pittsburgh, Pa. Ferrous metal plates and sheets. No. 154,936; May 16.
Forstmann & Huffmann Company, Passaic, N. J. Woolen piece goods. No. 154,937; May 16.
Forstmann & Huffmann Company, Passaic, N. J. Woolen piece goods. No. 155,150; May 16.
Fort Wayne Engineering & Manufacturing Co., Fort Wayne, Ind. Printed circulars and periodical pamphlets. No. 154,938; May 16.
Fraim, E. T., Lock Co., The, Lancaster, Pa. Locks and latches. No. 154,939; May 16.
Funk & Wagnalls Company, New York, N. Y. Phonograph records. No. 155,151; May 16.
Gabriel, Saml., Sons & Company, New York, N. Y. Games. No. 154,940; May 16.
Garner Print Works and Bleachery, New York, N. Y. Cotton piece goods. Nos. 154,941–3; May 16.
Gaynor Manufacturing Company, The, Bridgeport, Conn. Record cards. No. 154,944; May 16.
Gem Hammock & Fly Net Company, Milwaukee, Wis. Cotton and woolen rugs. No. 155,152; May 16.
Geraty, Jeremiah, New York, N. Y. Cleaning and polishing solution for floors, furniture, etc. No. 154,946; May 16.
Gillette Safety Razor Company, Boston, Mass. Safety razors. Nos. 154,947–9; May 16.
Gillette Safety Razor Company, Boston, Mass. Safety razors. No. 154,950; May 16.
Gilmore Petroleum Company, Los Angeles, Calif. Lubricating oil. Nos. 154,951–2; May 16.
Gladding, B. F., & Co. Inc., South Otselic, N. Y. Braided oil-silk fishing lines. No. 154,953; May 16.
Gladding, B. F., & Co. Inc., South Otselic, N. Y. Silk fishing lines. No. 154,954; May 16.
Goldman, Sigmund L., Chicago, Ill. Malt extracts in use in making nonalcoholic beverages. No. 154,955; May 16.
Goodman, Henry B., Boston, Mass. Expense-account books. No. 154,956; May 16.
Greer, John H., San Francisco, Calif. Portable savings bank. No. 154,957; May 16.
Greist Manufacturing Company, The, New Haven, Conn. Pressure gauges for pneumatic tires, etc. No. 154,958; May 16.
Hainer, Whitfield J., Providence, R. I. Planchette boards. No. 154,959; May 16.
Hamilton Card & Paper House, Inc., New York, N. Y. Certain specified articles of stationery. No. 154,960; May 16.
Handel-Maalschappij Planett, The Hague, Netherlands. Locks and safes. No. 155,021; May 16.
Hardinge Company, New York, N. Y. Ball and pebble mills. No. 155,153; May 16.
Hardy, F. A., & Company, Chicago, Ill. Finger-piece eyeglass mountings. No. 154,961; May 16.
Harris, A. W., Oil Company, Providence, R. I. Lubricating oils and greases. No. 154,962; May 16.
Haskins, Frances M., New York, N. Y. Baby exercisers. No. 154,963; May 16.
Hassinger, Egon, Barcelona, Spain. Steel pens, lead pencils, rubber erasers. No. 154,964; May 16.
Hazel Net Company, The, New York, N. Y. Hair nets. Nos. 154,965–6; May 16.
Henderson, Robert H., Ampere, N. J. Pipe-bending tools. No. 154,967; May 16.
Hendrickson, Frank L., Maysville, Ky. Nonalcoholic, maltless beverage. No. 154,968; May 16.
Hercules Petroleum Company, Dallas, Tex. Gasoline. No. 154,969; May 16.
Hieronimus, J. A., & Sons, San Francisco, Calif. Cereal malt beverage. No. 154,970; May 16.
Hoberg, John, Co., The, Green Bay, Wis. Toilet paper, paper napkins and towels, and wrapping paper. No. 154,971; May 16.
Holbrook, W. H., Company, Boston, Mass. Shoe-lining textile fabric in the piece. No. 155,154; May 16.
Holmes, Clay W., deceased, Elmira, N. Y., F. M. Shoemaker, administrator, assignor to F. H. Shoemaker. Skin lotions. No. 155,079; May 16.
Hooven & Allison Company, The, Xenia, Ohio. Fiber ropes and twines. Nos. 154,972–4; May 16.
Horwood, E. H., & Co., Hoboken, N. J., and New York, N. Y. Brassières. No. 155,155; May 16.
House Dress Apron Co. Inc., Amsterdam, N. Y. Aprons. No. 155,156; May 16.
Hughes, Robert D., Lynchburg, Va. Automobile rim tools. No. 154,975; May 16.
Hügo Büchner, Maschinenfabrik und Apparatebau-Anstadt Gesellschaft mit beschrankter Haftung, Berlin, Germany. Roller stropping apparatus for razors and safety-razor blades. No. 154,976; May 16.
Hygienic Fibre Company, Versailles, Conn. First-aid outfits. No. 154,977; May 16.
Hyman, Frank W., New York, N. Y. Transfer sheets for use in the art of printing. No. 154,978; May 16.
International Filter Co., Chicago, Ill. Water-purification apparatus. No. 154,979; May 16.
Ivoroid Mixed Paint Company, Newark, N. J. Paints, paint enamels, varnishes. No. 154,980; May 16.
Jackson Laboratories, Indianapolis, Ind. Puncture-sealing composition and preservative for pneumatic tires. No. 154,981; May 16.
Jackson, Marshall H., Chicago, Ill. Seal presses. No. 154,982; May 16.
Judycki, Carl, Athol, Mass. Locks and padlocks. No. 154,984; May 16.
Kahga Importing Company, New York, N. Y. Silk piece goods. No. 155,157; May 16.
Kellogg, M. W., Company, The, New York, N. Y. Steel plates. No. 154,985; May 16.
Keystone Lubricating Company, Philadelphia, Pa. Lubricants. No. 154,986; May 16.
Keystone Lubricating Company, Philadelphia, Pa. Lubricants consisting of oils and greases. No. 154,987; May 16.
Klemperer, Gustav, New York, N. Y. Hair nets. No. 155,158; May 16.
Klippert, George C., Chemical Co., Mount Vernon, N. Y. Ear cone adapted to receive medicine and be placed in the ear for healing effects. No. 154,988; May 16.
Koppel Industrial Car & Equipment Company, Koppel and Pittsburgh, Pa. Steam locomotives, turntables, bucket excavators, concrete mixers, etc. No. 154,989; May 16.
Kyoto Manufacturing & Trading Co., New York, N. Y. Toilet brushes. No. 154,990; May 16.
Lanett Cotton Mills, Lanett, Ala. Sheeting. No. 154,991; May 16.
Lauter-Humana Company, Newark, N. J. Pianos and player pianos. No. 154,992; May 16.
Lee, Harry C., & Company Inc., New York, N. Y. Tennis rackets. No. 154,993; May 16.
Leon, Henry H., Co., New York, N. Y. Handkerchiefs. No. 154,994; May 16.
Lessmann Bros., New York, N. Y. Cutlery. No. 154,996; May 16.
Liberty Paper Co., New York, N. Y. Sealing tape. No. 154,997; May 16.
Liggett & Myers Tobacco Company, New York, N. Y. Smoking and chewing tobacco and cigarettes. No. 154,998; May 16.
Lloyd, E. E., Paper Company, Chicago, Ill. Writing paper. No. 154,999; May 16.
Lowe Brothers Company, The, Dayton, Ohio. Substitute for preparel shellac. No. 155,000; May 16.
McCormick & Co., Inc., Baltimore, Md. Maltless fountain drinks and sirups and extracts therefor. No. 155,001; May 16.
McLaughlin, J. J., Limited, Toronto, Ontario, Canada. Ginger ale. No. 155,002; May 16.
Macungie Shoe Manufacturing Company, Macungie, Pa. Infants' and children's turn shoes and slippers. No. 155,159; May 16.
Madison Piano Company Inc., New York, N. Y. Pianos, electric, reproducing and player. No. 155,160; May 16.
Mallinson, H. R., & Co., Inc., New York, N. Y. Silk piece goods. No. 155,003; May 16.
Mantrose Corporation, The, New York, N. Y. Prepared shellac substitute. No. 155,004; May 16.
Marshall Field & Company, Chicago, Ill. Bedspreads. No. 155,005; May 16.
Marshall, John B., Catonsville, Md. Catamenial bandages. No. 155,006; May 16.
Martin Band Instrument Company, Elkhart, Ind. Saxophones, clarinets, piccolos, flutes, and horns. No. 155,161; May 16.
Martin, W. L., Broom & Mop Co., Louisville, Ky. Brooms. Nos. 155,007–9; May 16.
Mason City Oil & Grease Company, Mason City, Iowa. Lubricating oils and greases. No. 155,010; May 16.

Mason, Mayor, Glendale, Calif. Body and shoulder brace. No. 155,011; May 16.
Matthews, Jas. H., & Co., Pittsburgh, Pa. Marking tools for marking articles of metal. No. 155,013; May 16.
Mavromatas, Michel, New York, N. Y. Cigarettes. No. 155,014; May 16.
Mays Manufacturing Co. Inc., Providence, R. I. Lead pencils. No. 155,015; May 16.
Metal & Alloy Specialties Company Inc., Buffalo, N. Y. Golf-club heads. No. 155,016; May 16.
Metallograph Corporation, The, New York, N. Y. Mixing apparatuses for soda fountains. No. 155,017; May 16.
Meyer, Cyrus R., Baltimore, Md. Soap. No. 155,018; May 16.
Midwest Steel & Supply Company Inc., New York, N. Y. Cleaning apparatus for filter parts. No. 155,019; May 16.
Miller, Louis, Brooklyn, N. Y. Men's dress shirts. No. 155,162; May 16.
Monroe Tire Corporation, Chicago, Ill. Monthly trade publication. No. 155,020; May 16.
Montgomery, Le Roy, South Norwalk, Conn. Expansion bolts. No. 154,995; May 16.
Myer, Henry, & Company, Baltimore, Md. Negligee shirts. No. 155,163; May 16.
Nalty, Herbert, London, England. Golf balls and golf clubs. No. 155,022; May 16.
National Cloak & Suit Co., New York, N. Y. Certain articles of clothing. No. 155,023; May 16.
National Tool Company, The, Cleveland, Ohio. Milling cutters, reamers, hobs, etc. No. 155,024; May 16.
Nelson, P. W., Inc., Brooklyn, N. Y., and Chicago, Ill. Colors and prints in dry powder form. No. 155,025; May 16.
New Jersey Zinc Company, The, Newark and Franklin, N. J. Lithopone. No. 155,026; May 16.
Newark Paraffine and Parchment Paper Co., New York, N. Y. Wax paper. No. 155,027; May 16.
Ney, J. M., Co., The, Hartford, Conn. Gold alloys for dental purposes. Nos. 155,028–35; May 16.
Northwestern Oil Company, Superior, Wis., and Duluth, Minn. Liquid fuel oils. No. 155,036; May 16.
Oak Rubber Company, The, Ravenna, Ohio. Toy balloons. Nos. 155,037–8; May 16.
Oklahoma Producing and Refining Corporation of America, Tulsa, Okla. Lubricating oil. No. 155,039; May 16.
Old Scotch Co., Augusta, Me. Ginger ale. No. 155,164; May 16.
Oriental Silk Printing Company, Haledon, N. J., and New York, N. Y. Silk and silk and cotton piece goods and cotton goods in the piece. No. 155,165; May 16.
Owens, Thomas, Angola, Ind. Dressed poultry, eggs, and butter. No. 155,166; May 16.
Oxford Filing Supply Co., Brooklyn, N. Y. Filing cards. No. 155,040; May 16.
Oxford-Print, Boston, Mass. Certain named toys. No. 155,041; May 16.
Pacific Coast Biscuit Co., Seattle, Wash. Candies. No. 155,042; May 16.
Pacific Malt & Hops Co. Inc., Brooklyn, N. Y. Malt extract. No. 155,043; May 16.
Pagoda Import Company Inc., New York, N. Y., and Brooklyn, N. Y. Hair nets. No. 155,167; May 16.
Paramount Knitting Company, Chicago, Ill. Hosiery. Nos. 155,168–73; May 16.
Parker Pen Co., The, Janesville, Wis. Fountain pens. No. 155,044; May 16.
Parker, S. L., Howe, Ind. Laundry tablets. No. 155,174; May 16.
Parsons Paper Company, Holyoke, Mass. Printing and writing paper. No. 155,045; May 16.
Patchett, Samuel C., Washington, D. C. Paper weights. No. 155,046; May 16.
Permanent Manufacturing Co., Oakland, Calif. Needles or styli for sound-reproducing instruments. No. 155,047; May 16.
Peterson and Goodman, Chicago, Ill. Handle extensions. No. 155,048; May 16.
Polyphonwerke Aktiengesellschaft, Berlin, Germany. Phonographic sound records or plates. No. 155,049; May 16.
Polyphonwerke Aktiengesellschaft, Berlin, Germany. Certain accessories and supplies for phonographs. No. 155,058; May 16.
Porciron Mfg. Co., The, Royersford, Pa. Metal flower pots. No. 155,051; May 16.
Portland Cordage Co., The, Portland, Oreg. Manila rope. No. 155,052; May 16.
Power-Oil Co. Ltd., The, St. Louis, Mo. Lubricating oil. No. 155,053; May 16.
Power Paper Company, Springfield, Mass. Writing, printing, and typewriting papers, correspondence envelopes, etc. No. 155,175; May 16.
Premier Grand Piano Corporation, New York, N. Y. Pianos, and piano players. No. 155,054; May 16.
Progressive Leather Goods Co., New York, N. Y. Leather goods. No. 155,055; May 16.
Quinn, Richard, Philadelphia, Pa. Phonograph sound-box attachments. No. 155,056; May 16.
Rainford, Jacob A., Bergenfield, N. J. Piece goods used for interlining garments. No. 155,057; May 16.
Rathjen-Eggers Company, San Francisco, Calif. Mineral water. No. 155,058; May 16.
Rauch Cigar Company Inc., Indianapolis, Ind. Tobacco products. No. 155,059; May 16.
Rawles, James D., Company, Boston, Mass. Metal pipe fittings, pipe hangers, valves, and nuts. No. 155,060; May 16.
Real Fruit Beverage Co., South Bend, Ind. Nonalcoholic, maltless, noncereal beverages. No. 155,061; May 16.
Red "C" Oil Manufacturing Co., Baltimore, Md. Lubricating oils and greases, gasoline. No. 155,062; May 16.
Remington Arms Company, Inc., Bridgeport, Conn.; Ilion and New York, N. Y., and Swanton, Vt. Cash registers and parts thereof. Nos. 155,063–4; May 16.
Richmond Sundry Company, Inc., Richmond, Va. Hair nets. No. 155,176; May 16.
Roberts, G. G., Corporation, Whitman, Mass. Upholsterers' tacks. No. 155,065; May 16.
Rodeheaver Company, The, Philadelphia, Pa., and Chicago, Ill. Phonograph records. No. 155,066; May 16.
Rogers, Loyal D., Chicago, Ill. Laboratory apparatus. No. 155,067; May 16.
Rose, J., & Co. Inc., New York, N. Y. Refrigerators. No. 155,068; May 16.
Rosendahl, Reynold W., Philadelphia, Pa. Devices for holding razor blades for stropping purposes. No. 155,069; May 16.
Rosenthal Bros. & Bendetson, Boston, Mass. Cigars. No. 155,070; May 16.
Rubber and Cements, Chicago, Ill. Certain named cements. No. 155,071; May 16.
Rubberized Sheeting & Specialty Co. Inc., New York, N. Y. Household and nursery aprons. No. 155,177; May 16.
Samos Cigarette & Tobacco Co., Inc., New York, N. Y. Cigars, cigarettes, tobacco. No. 155,072; May 16.
Samson Cordage Works, Boston, Mass. Cord and twine. No. 155,073; May 16.
Santerba Perfumery Manufacturer Inc., New York, N. Y. Maltless sirups for use in nonalcoholic beverages. No. 155,074; May 16.
Savannah Beverage & Ice Co., Savannah, Ga. Nonalcoholic, noncereal, maltless beverages and sirups therefor. No. 155,075; May 16.
Scott, J. & J., Ltd., New York, N. Y. Paper, cardboard, box board, and mailing envelopes. No. 155,076; May 16.
Seamless Brassiere Co. Inc., New York, N. Y. Brassières. No. 155,178; May 16.
Shales, Alfred, Newton, Mass. Scratch fillers. No. 155,077; May 16.
Shaw-Walker Co., The, Muskegon, Mich. Wardrobes and office furniture. No. 155,179; May 16.
Sherwin-Williams Company, The, Cleveland, Ohio. Glue. No. 155,078; May 16.
Shoemaker, Flora H. (See Holmes, Clay W., assignor.)
Shoemaker, Floyd M., administrator. (See Holmes, Clay W.)
Silver Manufacturing Company, The, Salem, Ohio. Feed and ensilage cutters and fodder shredders. No. 155,080; May 16.
Singer Manufacturing Company, The, Elizabeth, N. J., and New York, N. Y. Family and manufacturing sewing machines, their parts, and attachments. No. 154,081; May 16.
Sitroux Importing Company, Inc., New York, N. Y. Hair nets. Nos. 155,082–5; May 16.
Smaltz-Goodwin Company, Philadelphia, Pa. Ladies' shoes of leather and of fabric. No. 155,086; May 16.
Smythe, J. L. N., Company, The, Philadelphia, Pa. Imitations of or substitutes for gold and silver leaf. No. 155,087; May 16.
Snow Flake Axle Grease Company, The, Boston, Mass. Axle greases and other lubricating oils and greases. No. 155,088; May 16.
Southern Oil Corporation, Kansas City, Mo. Gasolene. No. 155,089; May 16.
Standard Oil Company of New York, New York, N. Y. Petroleum and products of petroleum for illuminating, heating, etc. No. 155,090; May 16.
Stein Bros. Mfg. Co., Williamsport, Pa. Clothing. No. 155,091; May 16.
Sterrick, Harrison D., Pittsburgh, Pa. Malt sirup for beverages. No. 155,092; May 16.
St. Louis Pump & Equipment Company, St. Louis, Mo. Pumps for oil and other fluids. No. 155,180; May 16.
Street & Smith Corporation, New York, N. Y. Magazine issued twice monthly. No. 155,093; May 16.
Strevell-Paterson Hardware Co., Salt Lake City, Utah. Carpet sweepers, table forks, tool handles, etc. No. 155,094; May 16.
Strype, Fred C., New York, N. Y. Wrapping paper. No. 155,095; May 16.
Sturtevant, B. F., Company, Boston, Mass. Centrifugal fans. No. 155,096; May 16.
Superior Hat Company, St. Louis, Mo. Harvest hats. No. 155,181; May 16.
Swanberg, Julius, Chicago, Ill. Magazine pencils. No. 155,097; May 16.
Tenpenny Company, Incorporated, Norfolk, Va. Nonalcoholic, maltless beverages. No. 155,098; May 16.
Tulsa Oil Products Co., Tulsa, Okla. Gasoline. No. 155,099; May 16.
Tulsa Refined Oil Company, Tulsa, Okla. Mineral oils and greases. No. 155,100; May 16.
"Turmac" Turkish-Macedonian Tobacco Company, Arnhem, Netherlands. Smoking and chewing tobacco, cigarettes, cigars, and snuff. No. 155,101; May 16.
Twin City Forge and Foundry Company, Stillwater, Minn. Drop forgings and castings. No. 155,102; May 16.

Twinplex Sales Co., St. Louis, Mo. Electrical warming apparatus. No. 155,103; May 16.
U. S. Copper Products Corp., Cleveland, Ohio. Brass and copper seamless tubing. No. 154,908; May 16.
U. S. Glove Co., Marion, Ind. Leather-palm work gloves, a combination of leather and cotton flannel. No. 155,182; May 16.
Union Tool Company, Orange, Mass. Steel clamps, hack-saw frames, scribers screw drivers, etc. No. 155,104; May 16.
United Oil Company, Incorporated, The, Baltimore, Md. Lubricating oils. No. 155,105; May 16.
United Paper Company, Atlanta, Ga. Fruit and vegetable wrappers. No. 155,106; May 16.
United States Gutta Percha Paint Company, Saco, Me., and Providence, R. I. Ready-mixed paint. No. 155,107; May 16.
United States Playing Card Company, East Norwood, Cincinnati, Ohio. Playing cards. No. 155,183; May 16.
Van Toy Co., The, Cleveland, Ohio. Phonograph or sound-reproducing instrument. No. 155,108; May 16.
Wadsworth, Howland & Co., Incorporated, Boston, Mass. Painters' brushes. No. 155,109; May 16.
Waldref Manufacturing Co., The, St. Paul, Minn. Magazine pencils. No. 155,110; May 16.
Walsh Duplicator Corp., New York, N. Y. Duplicator rolls and lead pencils. No. 155,111; May 16.
Walter, S., Inc., Philadelphia, Pa. Toilet paper. No. 155,112; May 16.
Warner Gear Company, Muncie, Ind. Transmissions, differentials, clutches, control levers, and gears for automotive vehicles. No. 155,113; May 16.
Warren, S. D., Company, Boston, Mass. Printing paper. No. 155,114; May 16.
Webster Brothers Manufacturing Company, Waucoma, Iowa. Poultry coops and boxes, egg cases, butter and packing boxes. No. 155,115; May 16.
White, H. C., Company, North Bennington, Vt. Four-wheeled play wagons for children. No. 155,116; May 16.
White Mop Wringer Co., Fultonville, N. Y. Mop wringers. No. 155,117; May 16.
White, S. S., Dental Manufacturing Company, The, Philadelphia, Pa. Dental files and saws. No. 155,118; May 16.
White-Washburne Company, Inc., Hinsdale, N. H. Toilet paper. Nos. 155,119–21; May 16.
White-Washburne Company, Inc., Hinsdale, N. H. Toilet paper. No. 155,122; May 16.
Whiting Paper Company, Holyoke, Mass. Writing papers and mailing envelopes. No. 155,123; May 16.
Whiting Paper Company, Holyoke, Mass. Writing paper and mailing envelopes. No. 155,124; May 16.
Whitney, George E., Bridgeport, Conn. Bottle-capping machine. No. 155,125; May 16.
Wightman & Hough Co., Providence, R. I. Cigarette cases. No. 155,126; May 16.
Woolsey, C. A., Paint & Color Company, Jersey City, N. J. Ready-mixed roofing paint, waterproofing paint, etc. No. 155,128; May 16.
Work-Organizer Specialties Company, Detroit, Mich. Filing folders, data books, article sorting and distributing folders. No. 155,129; May 16.
Worthington Pump and Machinery Corporation, New York, N. Y. Pumping and certain other machinery. No. 155,130; May 6.
Wylie, Ruie C., Wichita, Kans. Flavoring for nonalcoholic, maltless beverages. No. 155,131; May 16.
Yangtze Corporation, New York, N. Y. Tea. No. 155,132; May 16.
Zorro Tobacco Co., Inc., The, New York, N. Y. Smoking tobacco. No. 155,133; May 16.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

Doodeward, Joseph, Covington, Ky. "Doodeward's Lightning Wonder Gloss." (For Automobiles, Pianos, Furniture, Woodwork, and All Varnished, Painted, and Enameled Surfaces.) No. 24,375; May 16.
Green, William T., Summit, N. J. "Yeast O Beauty Soap." (For a Toilet Soap.) No. 24,376; May 16.
Martin, J. A. (See Whiting, F. T., and Martin.)
Paris Manufacturing Company, The, Cleveland, Ohio. "Wonderful Improvement For Service and Cleaning." (For Window Shades, Being Applied to the Shade Rollers Thereof.) No. 24,377; May 16.
Routledge Bird, Pet and Animal Co., Portland, Oreg. "Routledge." (For Bird Remedies.) No. 24,378; May 16.
Routledge Bird, Pet and Animal Co., Portland, Oreg. "Routledge." (For Birdseed.) No. 24,379; May 16.
Russell Stover Company, Chicago, Ill. "Eskimo Pie." (For Confections.) No. 24,380; May 16.
Steele Wedeles Company, Chicago, Ill. "The Good Kind." (For Canned Corn.) No. 24,381; May 16.
Sussman, Wormser & Co., San Francisco, Calif. "S and W." (For Canned Peaches.) No. 24,382; May 16.
Sussman, Wormser & Co., San Francisco, Calif. "S. and W." (For Canned Corn.) No. 24,383; May 16.
Sussman, Wormser & Co., San Francisco, Calif. "S and W." (For Canned Peas.) No. 24,384; May 16.
Sussman, Wormser & Co., San Francisco, Calif. "S and W." (For Canned Asparagus.) No. 24,385; May 16.
Sussman, Wormser & Co., San Francisco, Calif. "S and W." (For Canned Apricots.) No. 24,386; May 16.
Sussman, Wormser & Co., San Francisco, Calif. "S and W." (For Canned Tomatoes.) No. 24,387; May 16.
Sussman, Wormser & Co., San Francisco, Calif. "S and W." (For Fruit Salad.) No. 24,388; May 16.
Sussman, Wormser & Co., San Francisco, Calif. "S and W." (For Canned Pineapple.) No. 24,389; May 16.
Sussman, Wormser & Co., San Francisco, Calif. "S and W." (For Canned Cherries.) No. 24,390; May 16.
Texas Tomato Growers Exchange, Tyler, Tex. "Blue Bonnet Brand East Texas Tomatoes." (For Tomatoes.) No. 24,391; May 16.
Whiting, F. T., and J. A. Martin, Charleston, W. Va. "Whiting's Liniment." (For Bottles Containing Liniment.) No. 24,392; May 16.

ALPHABETICAL LIST OF REGISTRANTS OF PRINTS.

Glover, H. Clay Co., New York, N. Y. "Gladys." (For Advertising Purposes for Glover's Mange Medicine.) No. 6,126; May 16.
Greist M'f'g Co., The, New Haven, Conn. "Shaves by Mail?" (For Advertising Purposes for Razor Blades.) No. 6,127; May 16.
Lotus Co., Inc., The, Newark, N. J. "How To Use This Sample of Lotus Hair Color Restorer." (For Advertising Purposes for the Lotus Preparation for the Hair.) No. 6,128; May 16.
Yellow Cab Manufacturing Co., Chicago, Ill. "Yellow Cab Manufacturing Co." (For Advertising Purposes for Taxicabs.) No. 6,129; May 16.
Yellow Cab Manufacturing Co., Chicago, Ill. "This Is the Vehicle That Has Standardized the Taxicab Industry in America." (For Advertising Purposes for Taxicabs.) No. 6,130; May 16.

ALPHABETICAL LIST OF TRADE-MARK APPLICANTS.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Abner-Drury Company, Washington, D. C. Ginger ale. No. 161,713; May 16.
Alloy Foundry and Machinery Corporation, New Rochelle, N. Y. Step plates. No. 156,954; May 16.
Alma Manufacturing Co. of Baltimore City, Baltimore, Md. Suspender buckles, buckles for men's and boys' clothing. No. 157,544; May 16.
American Bottling & Soda Water Co., San Francisco, Calif. Nonintoxicating, noncereal, maltless fruit beverage and sirups for same. No. 160,379; May 16.
American Garment Co., Indianapolis, Ind. Women's and children's aprons, dresses, nightgowns, and children's playsuits. No. 152,298; May 16.
American Insulator Company, New Freedom, Pa. Insulating composition materials for the manufacture of electrical and heat insulation in molded form, and plastic insulating compositions. No. 137,557; May 16.
American Sheet & Tin Plate Company. (See Tennessee Coal, Iron & Railroad Company, assignor.)

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Angert, S. & J., Bros., Philadelphia, Pa., and Atlantic City, N. J. Nonalcoholic, noncereal, maltless beverages. No. 161,613; May 16.

Anthony Nutype Company, Inc., Baltimore, Md. Type cleaner. No. 153,835; May 16.

Arr Tee Knitting Mills, Philadelphia, Pa. Knitted sweaters. No. 156,130; May 16.

Associated Commission Co., Inc., New York, N. Y. Woolen, worsted, linen, velvet, and other piece goods. No. 143,526; May 16.

Atlanta Sheet Metal Works, Atlanta, Ga. Skylights, gutters, and fire doors made of sheet metal. No. 148,189; May 16.

Baird, Wm. W., doing business as Heyfema Company, Columbus, Ga. Medicine for the treatment of hay fever and colds. No. 154,785; May 16.

Barrett Company, The, New York, N. Y. Felt roofing and sheathing and building paper. No. 160,991; May 16.

Beacon Manufacturing Company, Providence, R. I. Blankets, comfortables, traveling rugs, and baby bags, etc. No. 141,752; May 16.

Bear Manufacturing Co., Rock Island, Ill. Antiskid chains. No. 156,476; May 16.

Beautyaid Company, The, Cincinnati, Ohio. Hair tonic, toilet water, perfume, bath powder, tooth paste, deodorant, shampoo, etc. No. 101,982; May 16.

Bell Cap Company, The, Philadelphia, Pa. Hats and caps. No. 151,707; May 16.

Bemco Manufacturing Company. (See Bergman, Theodore R.)

Bergman, Theodore R., doing business as Bemco Manufacturing Company, New York, N. Y. Steel balls. No. 157,129; May 16.

Berliner, H. S., trading as The Compo Company, Lachine, Quebec, Canada. Talking machines, talking-machine parts, records, etc. Nos. 158,032–3; May 16.

Bishop, Robert, estate of, doing business as The Robert Bishop Mfg. Co., Boston, Mass. Cotton waste. No. 152,053; May 16.

Bishop, Robert, Mfg. Co., The. (See Bishop, Robert.)

Bissell, Lloyd, doing business as Star Piston Pin Co., Buffalo, N. Y. Piston pins. No. 155,427; May 16.

Bjorge Bros., Detroit, Minn. Insect traps. No. 144,841; May 16.

Blach, J., & Sons, Birmingham, Ala. Young men's and youths' coats, vests, pants, and overcoats. Nos. 152,737–8; May 16.

Blades, James L., doing business as The New Jersey Products Company, Woodcliff-on-Hudson, N. J. Cold creams, vanishing creams, talcum powders, etc. No. 157,875; May 16.

Bliss, Wm. B., Jr., & Co., assignor to Wm. B. Bliss, Jr., & Co. Incorporated, New York, N. Y. Woven and braided narrow fabrics. No. 157,353; May 16.

Bonwit, John, Skirt Co., Inc., New York, N. Y. Ladies' and misses' outer skirts. No. 151,075; May 16.

Bowdish, Gordon S., New Orleans, La. Bituminous cement. No. 159,241; May 16.

Bowen, Edward I., doing business as The Genuine Crude Oil Company, New York, N. Y. Hair grower and shampoo. No. 155,477; May 16.

Boyce & Veeder Company, Inc., Long Island City, N. Y. Portable fire extinguishers. No. 157,252; May 16.

Brody, F., & Sons Co., Des Moines, Iowa. Overalls, dress, work, negligée, and under shirts, men's, women's, and children's underwear, etc. No. 151,138; May 16.

Bruder, Edmund, Chicago, Ill. Game boards, indicator, counter, etc., and games played with a counter, indicator, or game piece. No. 156,563; May 16.

Bryan & Sandbach, Jersey City, N. J. Coaster car for children. No. 155,386; May 16.

Bryant, Lane. (See Leopold, Louis A.)

Cañco Chemical So. Inc., The Pittsburgh, Pa. Soaps and soap powders. No. 158,856; May 16.

California Fruit Beverages Co., Los Angeles, Calif. Apple cider, grape juice, and fruit sirups. No. 161,527; May 16.

California Products & Extract Co., San Francisco, Calif. Nonintoxicating, nonalcoholic, noncereal, maltless fruit beverage and sirups for same. No. 160,393; May 16.

Carborundum Co., The, Niagara Falls, N. Y. Refractory brick, cement, tile, mufflers, and shaped refractories. No. 160,537; May 16.

Carlisle Garment Co., The, Carlisle, Pa. Women's and children's dresses. No. 151,754; May 16.

Carr, John R., Philadelphia, Pa. Medicinal and pharmaceutical preparations for use as treatment for indigestion. No. 155,955; May 16.

Cedal Sawdust Cleanser Company, Wilmington, Calif. Soap paste. No. 126,182; May 16.

Central Radiator Company, New York, N. Y. Combined coal hot-water heater and open-fire grate. No. 153,540; May 16.

Cheney Brothers, South Manchester, Conn. Woven, knitted, netted, textile, and pile fabrics in the piece. No. 159,011; May 16.

Cherry Blossom Mfg. Co., Newton, Iowa. Nonalcoholic, noncereal, maltless beverages and sirups for making same. No. 159,923; May 16.

Cherry Blossom Mfg. Co., Newton, Iowa. Nonalcoholic, noncereal, maltless beverages and sirups for making same. No. 159,954; May 16.

Cherry Pride Company, The, Chicago, Ill. Nonalcoholic, noncereal, maltless beverages and sirups. No. 161,354; May 16.

City Brass Works Co., Chicago, Ill. Hinges, particularly windshield hinges. No. 160,284; May 16.

Cleveland Co-Operative Stove Co., The, Cleveland, Ohio. Gas ranges, heaters, furnaces, etc. No. 144,179; May 16.

Cohen, N. B., Scranton, Pa. Hair nets. Nos. 159,343–4; May 16.

Cohen, N. B., Scranton, Pa. Hair nets. No. 159,346; May 16.

Compo Company, The. (See Berliner, H. S.)

Copelof, Stillman & Co. Inc., New York, N. Y. Dresses, coats, cloaks, suits, and evening wraps for women. No. 156,212; May 16.

Culp, George K., Inc., Wilmington, Del., and New York, N. Y. Vehicle tires wholly or partly of rubber. No. 157,514; May 16.

D'Anna, John, New York, N. Y. Medicine for general tonic purposes, especially for rheumatism. No. 155,161; May 16.

Day, Matilda, doing business as William J. Day & Co., Boston, Mass. Hardwood floors. No. 158,918; May 16.

Day, William J., & Co. (See Day, Matilda.)

Delta Tours. (See James, Otho F.)

Denney, Annie A., Philadelphia, Pa. Cream for use on the human hair. No. 157,830; May 16.

Divir, Neil, doing business as N. Divir, New York, N. Y. Periodical publications. No. 157,218; May 16.

Dow Chemical Company, The, Midland, Mich. Fungicides used for spraying or dusting plants. No. 153,449; May 16.

D-Rex-U Safety Signal Company, Kansas City, Mo. Electrically-operated visible traffic signals for use on automotive vehicles. No. 155,669; May 16.

Elbro Knitting Mills, Milwaukee, Wis. Knitted outer wear, sweaters, coats, capes, hockey caps, hoods, etc. No. 152,793; May 16.

Elias, Joseph, & Co. Inc., New York, N. Y. Plate and roller glass and glass having wire reenforcements. No. 152,838; May 16.

Ely & Walker Dry Goods Company, St. Louis, Mo. Leather gloves, fabric gloves, and mittens. Nos. 156,154–5; May 16.

Empire Silk Company, Wilmington, Del., and New York, N. Y. Silk piece goods. No. 158,569; May 16.

Export Cap Mfg. Co. Inc., Trenton, N. J. Silk, felt, cloth, and fur caps. No. 1,421,137; May 16.

First Aid Syrup Co., The. (See Silverman, E. & H.)

Forstmann & Huffmann Company, Passaic, N. J. Woolen piece goods. Nos. 159,252–6; May 16.

Freedman & Co., Harrisburg, Pa. Hosiery. No. 155,675; May 16.

Freeman, A. Jay, Chicago, Ill. Liniment used for treatment of sprains, bruises, etc. No. 155,679; May 16.

Gas Motor Parts Company. (See Moor, Edward N.)

General Footwear Co. Inc., New York, N. Y. Bathing slippers and shoes and boudoir slippers made of leather, etc. No. 154,185; May 16.

Genuine Crude Oil Company, The. (See Bowen, Edward J.)

Glotex Hosiery Co., New York, N. Y. Hosiery. No. 155,747; May 16.

Gold Seal Products Company, Inc., Urbana, N. Y. Champagnes and wines. No. 159,452; May 16.

Goldstein, David S., & Co., Chicago, Ill. Coats, jackets, vests, waistcoats, trousers, etc. No. 155,684; May 16.

Goldy Brothers, New York, N. Y. Silk ribbons and silk and cotton ribbons. No. 158,708; May 16.

Golitsky, Posner, & Hock, Bayonne, N. J. Clothing, suits, coats, overcoats, trousers, etc. No. 153,807; May 16.

Gouléd, Felix, New York, N. Y. Linen, canvas, cotton, and sailcloth textile piece goods. No. 150,234; May 16.

Grays Harbor Shingle Co., Aberdeen, Wash. Red-cedar shingles. No. 161,127; May 16.

Greenwood, F., Inc., Paterson, N. J. Nonalcoholic, noncereal, maltless beverages, and sirups. No. 161,358; May 16.

Hamburger Co., The, Chicago, Ill. Nonintoxicating, nonalcoholic, noncereal fruit beverages and sirups for same. No. 161,553; May 16.

Hammarlund, Henning, Svangsta, Sweden. Speedometers. No. 138,288; May 16.

Harter, Leander D., Oklahoma, Okla. Artificial stone and composition for making same. No. 155,497; May 16.

Hayem, J., and Cie., Paris, France. Collars, cuffs, cravats, knitted and textile underwear for men and women, outer shirts for men. No. 152,373; May 16.

Heyfema Company. (See Baird, Wm. W.)

Held, Max, Inc., New York, N. Y. Sport shirts for women. No. 153,601; May 16.

Heller, Morris, doing business as Venice Importing Co., New York, N. Y. Olive oil. No. 155,617; May 16.

Herbine Chemical Co. (See Herbst, Max.)

ALPHABETICAL LIST OF TRADE-MARK APPLICANTS.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Herbst, Max, doing business as Herbine Chemical Co., New York, N. Y. Active astringent, antiseptic, and deodorant mouth wash. No. 156,691; May 16.

Herman, John C., & Co., Harrisburg, Pa. Cigars. No. 158,714; May 16.

Honigbaum, Harry H., New York, N. Y. Shingles. No. 161,047; May 16.

Hut Neckwear Company, New York, N. Y. Men's and boys' cravats. No. 153,285; May 16.

Import Paper Company, Chicago, Ill. Writing paper. Nos. 160,352–3; May 16.

International Salt Co. of New York, New York, N. Y. Salt. No. 156,449; May 16.

Interpreter Publishing Corporation, New York, N. Y. Weekly periodical. No. 162,298; May 16.

James, Otho F., doing business as Delta Tours, Washington, D. C. Travel pamphlets, maps, and guidebooks. No. 155,970; May 16.

Jefferson, Ida B., Longview, Tex. Liniment for rheumatism or sore joints, corns, toothache, etc. No. 155,263; May 16.

Joan Underwear Corporation, New York, N. Y. Silk, satin, crêpe de chine, and textile fabric underwear for men, women, and children. No. 152,710; May 16.

Johnson & Sons, New York, N. Y., and London, England. Photographic chemicals. No. 157,765; May 16.

Jones, Samuel & Company, Newark, N. J. Gummed paper—that is, paper coated on one side with mucilage or gum. No. 153,939; May 16.

Kant-Skore Piston Company, The, Cincinnati, Ohio. Pistons. No. 152,207; May 16.

Kay Brothers Limited, Stockport, England. Fly papers and flycatchers. No. 156,640; May 16.

Kee Lox Manufacturing Co., Rochester, N. Y. Carbon paper. No. 153,294; May 16.

Keith-Landis Corporation, Chicago, Ill. Clocks and watches. No. 157,399; May 16.

Kerlow Steel Flooring Company, New York, N. Y. Steel flooring, ventilator gratings, grids, and grilles. No. 161,053; May 16.

Kohl, T. G., Company, Wausau, Wis. Chimney cleaners. No. 156,746; May 16.

Kozlowski, Frank J., Detroit, Mich. Proprietary medicines. No. 154,410; May 16.

Krueger, Gottfried, Brewing Company, Newark, N. J. Malt and hop extract for beverages. No. 157,618; May 16.

La Boiteaux, C. L., Company, The, Cincinnati, Ohio. Strawboard, box board, etc., and particularly binders' board. No. 143,545; May 16.

Lee, Lionel F., doing business as Lee Rubber Company, Waukesha, Wis. Inner-tire rubber patches. No. 159,759; May 16.

Lee Rubber Company. (See Lee, Lionel F.)

Leopold, Louis A., trading as Lane Bryant, New York, N. Y. Shoes of leather, rubber, fabric, etc. No. 157,840; May 16.

Lesher, Whitman & Co. Inc., New York, N. Y. Draperies and upholsteries. No. 136,161; May 16.

Lewenthal, Edward A., trading as Standard Motor Service Company, San Antonio, Tex. Springs for automotive vehicles. No. 147,114; May 16.

Little, A. E., Co., Lynn, Mass. Boots and shoes of leather and leather and cloth. No. 157,154; May 16.

Lord Baltimore Bottling Company. (See Schonhoff, John Z.)

Louisville Paper Co., Louisville, Ky. Bond paper. No. 160,766; May 16.

Lournay, Inc., New York, N. Y. Rouge, cold cream, lip stick, toilet water, etc. Nos. 156,645–9; May 16.

Loux Sons, Philadelphia, Pa. Household, office, and porch furniture. No. 156,837; May 16.

Mappin & Webb Limited, Sheffield and London, England. Scent-bottle screws—i. e., bottle closures. Nos. 159,471–2; May 16.

Martin and Martin, Chicago, Ill. Men's, women's, and children's leather shoes. No. 158,089; May 16.

Martin Sons and Company Limited, Lindley, borough of Huddersfield, England. Cloths and stuffs of wool, worsted, or hair. No. 158,832; May 16.

Masury-Young Company, Boston, Mass. Wool oils and fulling and scouring oils. No. 150,246; May 16.

Memphis Packing Corporation, Memphis, Tenn. Smoked meats and lard. No. 144,931; May 16.

Michaels Stern & Co., Rochester, N. Y. Men's and boys' suits and overcoats. Nos. 156,307–8; May 16.

Migel, J. A., Inc., New York, N. Y. Ladies and misses' silk shirt waists, suits, blouses, skirts, dresses, etc. Nos. 153,678–80; May 16.

Miller, Joseph E. Inc., Providence, R. I. Bracelets, bar pins, brooches, neck chains, etc. No. 152,628; May 16.

Mitchell & Dillon Coal Company, Chicago, Ill. Coal. No. 156,796; May 16.

Mittelstaedt, Edward L., doing business as Mocq. Burnier & Cie., Inc. Perfume extracts and toilet waters. No. 156,999; May 16.

Mocq. Burnier & Cie., Inc. (See Mittelstaedt, Edward L.)

Moor, Edward N., Jr., doing business as Gas Motor Parts Company, San Francisco, Calif. Wrist pins. No. 156,288; May 16.

Mott, J. L., Company, Trenton, N. J. Seats and covers for water closets. No. 159,513; May 16.

Murray, John F., New York, N. Y. Pharmaceutical preparations for stimulating action of the liver cells. No. 151,055; May 16.

Myers Manufacturing Co., Los Angeles, Calif. Bathing suits. No. 156,170; May 16.

N. and H. Company, Kansas City, Kans. Vermifuge. No. 155,825; May 16.

National Garter Company, Cincinnati, Ohio. Garters. No. 153,363; May 16.

National Tool Company, The, Cleveland, Ohio. Milling cutters, reamers, counterbores, etc. No. 157,439; May 16.

New Jersey Products Company, The. (See Blades, James L.)

North American Wood Products Corporation, New York, N. Y. Wall board, blinds, doors, windows, etc. No. 141,797; May 16.

Osten, Otto, Chicago, Ill. Bleaching materials. No. 157,440; May 16.

Pacific Mills, Lawrence and Boston, Mass. Cotton piece goods. No. 158,724; May 16.

Pacific Mills, Lawrence and Boston, Mass. Cotton piece goods. No. 158,726; May 16.

Patton, Daniel T., and Company, Grand Rapids, Mich. Dress shirts. No. 152,649; May 16.

Patton, Daniel T., and Company, Grand Rapids, Mich. Work shirts. No. 152,650; May 16.

Pelzer Manufacturing Company, Pelzer, S. C. Sheetings. No. 158,799; May 16.

Pennsylvania Knitting Mills, The, Philadelphia, Pa. Sweaters. No. 151,924; May 16.

Perfek'tone Corporation, The, Philadelphia, Pa. Talking machines and parts. No. 121,316; May 16.

Perry Knitting Company, The, Perry, N. Y. Children's knit underwear. No. 151,886; May 16.

Pett Products Co. (See Pettersen, Holger.)

Pettersen, Holger, doing business as Pett Products Co., Chicago, Ill. Cough drops and cough candy. No. 156,597; May 16.

Pierce-Arrow Motor Car Company, The, Buffalo, N. Y. Change-speed transmissions and parts thereof. No. 138,185; May 16.

Plant, Thomas G., Company, Boston, Mass. Boots, shoes, and slippers of leather, rubber, felt, etc. No. 157,730; May 16.

Plumb, Fayette R. Incorporated, Philadelphia, Pa. Handled hammers, hatchets, axes, adzes, and sledges. No. 150,822; May 16.

Poldi Steel Corporation of America. (See Poldina Hut, továrna na kelímkovou ocel Crucible Steel Works, assignor.)

Poldihütte Tiegelguszstahlfabrik. (See Poldina Hut, továrna na kelímkovou ocel Crucible Steel Works.)

Poldina Hut, továrna na kelímkovou ocel Crucible Steel Works (also trading as Poldihütte Tiegelguszstahlfabrik, Prague and Kladno, Czech-Slovakia, assignor to Poldi Steel Corporation of America, New York, N. Y. Steel in blocks and in bars and forgings for all kind of machines, artisans' and cutting tools, and springs. No. 150,329; May 16.

Pollak Steel Company, The, Cincinnati, Ohio. Metal bars for reenforcing concrete. No. 159,719; May 16.

Poudreries Reunies de Belgique Societe Anonyme, Brussels, Belgium. Explosive powders, dynamite, and electric detonators, etc. No. 148,453; May 16.

Premier Malt Sales Corp. (See Wielich, Albert.)

Red River Lumber Company, Minneapolis, Minn., and Westwood, Calif. Pine, fir, and cedar lumber. No. 145,360; May 16.

Reynolds, C. W., New York, N. Y. Hydraulic jacks. No. 155,573; May 16.

Rice-Stix Dry Goods Company, St. Louis, Mo. Hosiery. No. 153,568; May 16.

Ripley, George A., doing business as Ripley Shirt Manufacturing Company, Dallas, Tex. Men's dress shirts. No. 156,199; May 16.

Ripley Shirt Manufacturing Company. (See Ripley, George A.)

Rhodes-Marden Corporation, The, New York, N. Y. Booklets and small text cards issued from time to time. No. 155,119; May 16.

Robles, Dorothy M., Los Angeles, Calif. Children's frocks and rompers for outer wear. No. 153,691; May 16.

Root, Charles F., doing business as Suaveline Mfg. Co., New York, N. Y. Lotion for dressing the hair. No. 155,831; May 16.

Rose, Frances, Washington, D. C. Ladies' hats and furs. No. 154,324; May 16.

Rosenfeld, M. C., Company, doing business as Standard Malt Product Co., Boston, Mass. Malt extract. No. 147,892; May 16.

Ross, Benjamin, Brooklyn, N. Y. Shoes and boots of leather. No. 155,366; May 16.

Royal Hat Co., The, New York, N. Y. Boys' and men's caps. No. 152,383; May 16.

Rutland Fire Clay Co., Rutland, Vt. Patching plaster for walls. No. 154,995; May 16.

Salt's Textile Manufacturing Company, The, Bridgeport, Conn. Pile fabrics in the piece. No. 159,114; May 16.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Sandvikens Jernverks Aktiebolag, Sandviken, Sweden. Articles of iron and steel manufacture. Nos. 137,967 S; May 16.

Sankey, Charles H., London, England. Fire cement. No. 161,706; May 16.

Sappington, J. W., doing business as the Two & Three Quarters Company, Fort Worth, Tex. Nonalcoholic malt cereal beverage sold as soft drinks. No. 140,211; May 16.

Savi, Paul A., Boston, Mass. Boots and shoes of leather, rubber, fabric, etc. No. 158,196; May 16.

Schonhoff, John Z., trading as Lord Baltimore Bottling Company, Baltimore, Md. Ginger ale. No. 160,306; May 16.

Sharp, John, doing business as She-ll Fire Spark Plug Co., Cleveland, Ohio. Ignition accessories. No. 146,740; May 16.

She-ll Fire Spark Plug Co. (See Sharp, John.)

Shlivek Brothers Fabrics Corporation, New York, N. Y. Wool, wool and cotton, and wool and silk mixture fabrics in the piece. No. 159,289; May 16.

Shlivek Brothers Fabrics Corporation, New York, N. Y. Wool, wool and cotton, and wool and silk mixture fabrics in the piece. No. 159,291; May 16.

Silverman, E. & H., doing business as The First Aid Sirup Co., Hazleton, Pa. Noncereal, nonalcoholic, maltless beverage. No. 159,621; May 16.

Simplex Tire & Rubber Company, Chicago, Ill. Pneumatic rubber tires. No. 155,368; May 16.

Smith Manufacturing Co. Inc., Ellensburg, Wash. Toy bicycle. No. 144,751; May 16.

Societe de Mecanique de Gennevilliers, Paris, France. Ball and roller bearings and thrust bearings. No. 156,110; May 16.

Spray Engineering Company, Boston, Mass. Water and other liquid spraying systems and parts of said systems. No. 154,421; May 15.

Stafford, George A., doing business as G. A. Stafford & Co., New York, N. Y. Woven cotton fabrics in the piece. No. 124,423; May 16.

Standard Malt Product Co. (See Rosenfeld, M. C., Company.)

Standard Motor Service Company. (See Lewenthal, Edward A.)

Star Extract Works, New York, N. Y. Nonalcoholic maltless beverage and extract. No. 161,456; May 16.

Star Piston Pin Co. (See Bissell, Lloyd.)

Star Suspender Co., Philadelphia, Pa. Garters. No. 156,303; May 16.

Suaveline Mfg. Co. (See Root, Charles F.)

Superior Brass N. C., New York, N. Y. Bathroom shelving, cup, soap, towel, and toilet-paper, racks, garment hooks. No. 144,788; May 16.

Tennessee Coal, Iron & Railroad Company, assignor to American Sheet & Tin Plate Company, Birmingham, Ala. Plain, corrugated, round, square, and flat iron and steel sheets, plates, and bars. No. 114,932; May 16.

Terry, George W., Greenfield, Mass. Compound for the treatment of barbers' itch, dogwood poison, and skin disease, etc. No. 154,890; May 16.

Texas Gulf Sulphur Company, New York, N. Y. Sulphur and sulphur inoculated with bacteria. No. 157,117; May 16.

Tiedemann, Theo., & Sons, Inc., New York, N. Y. Men's suits, children's suits, women's skirts, waists, suits, and dresses for burial purposes. No. 151,730; May 16.

Tilton & Keeler, Inc., New York, N. Y. Cotton piece goods. No. 158,268; May 16.

Tolhurst Machine Works, Troy, N. Y. Centrifugal drying machines, also known as hydro-extractors. No. 154,289; May 16.

Tomson, P. C., & Co., Philadelphia, Pa. Lye. No. 156,554; May 16.

Treadwell Engineering Company, Easton, Pa. Machinery. No. 154,391; May 16.

Twin City Brick Company, St. Paul, Minn. Brick. No. 139,685; May 16.

Two & Three Quarters Company. (See Sappington, J. W.)

United Shoe Machinery Corporation, Paterson, N. J., and Boston, Mass. Machines and parts thereof and tools used in the manufacture of boots, shoes. No. 156,870; May 16.

United States Envelope Company, Springfield, Mass. Envelopes. No. 157,861; May 16.

United States Tent & Awning Company, Chicago, Ill. Portable houses. No. 160,983; May 16.

Van Raalte Company., Inc., New York, N. Y. Hosiery. No. 156,037; May 16.

Venice Importing Co. (See Heller, Morris.)

Venus, Arch-Support Company, Chicago, Ill. Dressings and dry cleaners used on fabrics, leathers, etc. No. 153,059; May 16.

Vivaudou, V., Inc., New York, N. Y. Veils, hair nets, silk piece goods, woolen piece goods, and lace curtains. No. 158,957; May 16.

Voter, G. H., Inc., Boston, Mass. Roofing materials. No. 156,556; May 16.

Waxtwell Paper Company, Grand Rapids, Mich. Wrapping paper. No. 159,640; May 16.

White, L. Q., Shoe Co., Bridgewater, Mass. Rubber heels. No. 157,643; May 16.

Wiëlich, Albert, doing business as The Premier Malt Sales Corp., New York, N. Y. Malt extracts. No. 140,971; May 16.

Wiley-Bickford-Sweet Co., The, Worcester, Mass. Knitted fabrics in the piece. No. 150,579; May 16.

Wilson Process, Inc., New York N. Y. Boots and shoes made wholly or in part of leather, canvas, or textile materials. No. 156,123; May 16.

Wood, H. H., & Company, Laconia, N. H. Hosiery. No. 155,720; May 16.

Wooleather Corp., Salem, Mass. Dusting brooms, dusting brushes, and wool dusters. No. 155,037; May 16.

Wornova Mfg. Co., Inc., New York, N. Y. Children's rompers, jumpers, overalls, and smocks. No. 150,791; May 16.

Zales Bros., New York, N. Y. Mantles for incandescent gaseous fuel burners. No. 153,424; May 16.

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED ON THE 16TH DAY OF MAY, 1922.

NOTE.—Arranged in accordance with the first significant character or word of the name. (In accordance with city and telephone directory practice.)

Accounts, Handling. C. F. Balch. No. 1,416,437; May 16.
Adding machine. H. Landsiedel. Nos. 1,416,363–4; May 16.
Advertising and display case. H. R. McCleary. No. 1,416,566; May 16.
Agricultural machine. A. T. Brown. No. 1,416,259; May 16.
Air-cleansing device and ventilator. W. M. Reed. No. 1,416,381; May 16.
Air-cushion construction. M. Petterson. No. 1,416,233; May 16.
Air, Dehumidifying. A. W. Lissauer and R. E. Keyes. No. 1,416,218; May 16.
Air service station. A. A. Ewald. No. 1,416,627; May 16.
Airship. J. Schuette. Nos. 1,416,580–1; May 16.
Air-washing device. W. L. Dudley. No. 1,416,401; May 16.
Alarm: *See*—
Automatic alarm.
Aluminum, Composition of matter for and method of soldering and welding. P. de Clamecy. No. 1,415,925; May 16
Ammunition, Primer for small-arms. H. T. Peck. Nos. 1,416,121–3; May 16.
Andirons and screen, Fireplace. J. W. Mahoney. No. 1,416,369; May 16.
Annunciator. W. T. Dippel. No. 1,416,340; May 16.
Arch supports, Metatarsal. J. J. McCartin. No. 1,416,103; May 16.
Armature winding. A. W. Houchin. No. 1,415,875; May 16.
Auto attachment. D. W. Minnich. No. 1,416,569; May 16.
Autographic register. J. Q. Sherman. Nos. 1,416,129–30; May 16.
Automatic alarm. S. Hickey. No. 1,415,874; May 16.
Automobile and vehicle locking device. T. J. Willett. No. 1,416,393; May 16.
Automobile bumper. V. Krefl. No. 1,416,358; May 16.
Automobile bumper. F. Tomasek. No. 1,416,426; May 16.
Automobile bumper wing. J. Hoffman. No. 1,416,468; May 16.
Automobile door. E. L. Lanfair. No. 1,416,651; May 16.
Automobile time lock. A. W. Lyda. No. 1,415,885; May 16.
Automobile tonneau, Convertible. L. L. Fuller. No. 1,416,551; May 16.
Automobile top. D. C. Watt and F. A. Grerson. No. 1,416,659; May 16.
Automobiles, Adjustable suspending rig for. A. G. Girard. No. 1,416,191; May 16.
Automobiles, Hood latch for. E. L. Crum. No. 1,416,453; May 16.
Bag holder. J. N. Schwalen. No. 1,415,901; May 16.
Bag holder. J. Sturrock. No. 1,415,960; May 16.
Bag or case, Body-suspended. L. Seiler. No. 1,416,238; May 16.
Bait, Artificial. W. Auberlin. No. 1,415,913; May 16.
Baking pan. J. G. Jackson. No. 1,416,208; May 16.
Bale tie. J. F. Stauffer and J. F. Rowland. No. 1,416,587; May 16.
Band-joining device. J. D. Browne. No. 1,415,918; May 16.
Band-saw machine. E. Johnson. No. 1,416,355; May 16.
Barrier gate. L. S. Black. No. 1,416,162; May 16.
Bath fitting. L. Bloch. No. 1,416,599; May 16.
Bathing apparatus. W. L. Deming. No. 1,416,270; May 16.
Batteries, Depolarizer for primary. R. C. Benner and H. F. French. No. 1,415,860; May 16.
Battery: *See*—
Electric storage battery.
Battery construction, Storage-. R. S. Blair. No. 1,416,327; May 16.
Bearing. J. A. V. Turck. No. 1,416,246; May 16.
Bearing, Roller. R. G. Bodlund. No. 1,416,164; May 16.
Bed. C. L. Batchelor. No. 1,415,978; May 16.
Beds, Table attachment for. S. Kuczynski. No. 1,416,562; May 16.
Bedclothes clamp. J. Lundeen. No. 1,416,655; May 16.
Bedstead. L. Howe. No. 1,416,297; May 16.
Beet elevator. O. Hansen. No. 1,416,196; May 16.
Belt, Shell. E. Flurie. No. 1,416,184; May 16.
Billiard counter. A. H. Griswold. No. 1,416,015; May 16.
Blackboard and desk, Combined. C. W. Hall. No. 1,416,555; May 16.
Blower. J. H. Morgan. No. 1,416,229; May 16.
Board: *See*—
Game board. Scrubbing board.
Ironing board.
Boat hatch. A. D. Newcomb. No. 1,416,499; May 16.
Boiler. W. F. Groscup. No. 1,416,286; May 16.
Boiler clean-out device, Steam-. M. Huffman. No. 1,416,207; May 16.
Boiler cleaner. C. M. Garland. No. 1,416,552; May 16.
Boiler-washing systems, Separator for. F. S. Wichman. No. 1,416,538; May 16.
Boilers, Apparatus for blowing soot from tubes of. C. M. Garland. No. 1,416,553; May 16.
Bomb structure. E. E. Neal. No. 1,415,947; May 16.
Boring and milling machine. G. F. Kriesel. No. 1,415,878; May 16.
Bottle. G. G. Gregory. No. 1,416,347; May 16.
Bottle receptacle, Milk-. J. Sandor and J. Toth. No. 1,415,953; May 16.
Bottle stopper. C. Merrill. No. 1,416,227; May 16.
Bottle stopper, Safety. J. Furman. No. 1,416,278; May 16.
Bottle top, Sanitary. C. Lustgarten. No. 1,416,565; May 16.
Box: *See*—
Candy box. Safety and match box.
Display box. Shipping and dispensing box.
Milk box.
Phonograph sound box.
Box. B. Cohn. No. 1,416,451; May 16.
Box blanks, Corner-cutting machine for. S. S. Gipe. No. 1,416,282; May 16.
Box-filling machines, Tray-feeding mechanism for. H. C. Schumacher. No. 1,415,900; May 16.
Box-nailing form. E. V. Oliver. No. 1,416,230; May 16.
Box or package handling apparatus. W. G. Price. No. 1,416,060; May 16.
Boxes, Cover for. H. Schwenneke. No. 1,416,420; May 16.
Bracket: *See*—
Canopy-frame bracket.
Brake: *See*—
Car brake. Countershaft brake.
Brake lever. F. C. Denham. No. 1,416,338; May 16.
Breech mechanism. D. F. Asbury. No. 1,415,856; May 16.
Breech mechanism. D. F. Asbury. No. 1,415,912; May 16.
Brick pallet. L. G. Woods. No. 1,416,432; May 16.
Broom and brush handle. G. M. Watters and W. A. Brown. No. 1,416,533; May 16.
Brush handle. J. A. White. No. 1,416,081; May 16.
Buckle. D. A. Hart. No. 1,416,290; May 16.
Buckle and band hook. J. B. Robinson. No. 1,416,417; May 16.
Bulkhead doors and sluice gates, Means for automatically operating. D. J. Smith and C. Towl. No. 1,416,070; May 16.
Burner: *See*—
Oil burner. Oven burner.
Burner. H. Waterman. No. 1,415,965; May 16.
Butter cutting and printing machine. A. Sharp. No. 1,416,517; May 16.
Butter fat or oil from milk and cream, Extracting. C. E. North. No. 1,416,053; May 16.
Cabinet, Advertising. C. E. Closson. No. 1,416,267; May 16.
Cabinet, Storage. J. A. Miner. No. 1,416,409; May 16.
Calendar and diary page. C. F. Lewis. No. 1,415,883; May 16.
Call-box contact mechanism. G. W. Janson. No. 1,416,642; May 16.
Camera, Duplex. C. F. Jones. No. 1,416,645; May 16.
Cameras, Multiple-exposure attachment for. A. Payne. No. 1,416,502; May 16.
Cameras, Print-storage equipment for. J. S. Greene. No. 1,416,193; May 16.
Can opener and sealer. J. E. Reller and W. Krecker. No. 1,416,577; May 16.
Can salter. N. B. Anderson and J. A. Berg. No. 1,416,156; May 16.
Cans, Means for feeding. F. B. Donnellan. No. 1,416,178; May 16.
Candy box. P. Hall. No. 1,416,019; May 16.
Canopy-frame bracket. C. B. Pike. No. 1,416,414; May 16.
Cap-spinning frames. J. H. Jones. No. 1,416,356; May 16.
Car brake. R. Z. Farmer and G. S. Marsh. No. 1,416,181; May 16.
Car brake. R. H. Minich. No. 1,416,371; May 16.

Car coupling. T. E. McCarthy. No. 1,416,368; May 16.
Car, Drier. C. H. Klein. No. 1,416,091; May 16.
Car, Transfer. W. W. Wallace. No. 1,416,589; May 16.
Car wheels, Safety fender for. F. K. Cochran. No. 1,416,610; May 16.
Carrier: *See*—
Fishing-snell carrier. Tire carrier.
Cars, Buffer device for. S. G. H. Orell. No. 1,416,377; May 16.
Cars, Card holder for railway. A. E. Sopp. No. 1,416,072; May 16.
Carbonating device. C. J. Severson. No. 1,416,307; May 16.
Carburizing material. N. D. Nielsen. No. 1,416,501; May 16.
Cards, Holder for playing. R. C. Castles. No. 1,416,447; May 16.
Carriages, Runner for baby. J. E. Douglas. No. 1,416,454; May 16.
Carrying case. A. A. Thomas. No. 1,416,139; May 16.
Carton. G. F. Callery and R. W. Lotz. No. 1,415,988; May 16.
Case: *See*
Carrying case. Egg case.
Casting corners for metal beds. I. A. Featherman. No. 1,416,343; May 16.
Casting machines, Feeding device for die-. G. W. Bungay. No. 1,416,261; May 16.
Catalyzer. K. H. Wimmer. No. 1,416,249; May 16.
Cementitious materials, Reenforcing bar for. H. H. Muir. No. 1,416,117; May 16.
Centrifugal extractor. S. Prestwich. No. 1,416,125; May 16.
Chamber spring attachment. L. R. H. Dick. No. 1,416,177; May 16.
Channel-flap-laying machine. L. J. Morrison. No. 1,415,946; May 16.
Chart holder. J. O. Trautwein. No. 1,416,141; May 16.
Chartometer. W. E. C. Petersen. No. 1,416,380; May 16.
Check protector. A. B. Hines. No. 1,416,639; May 16.
Cheese, Forming. J. R. Meyers. No. 1,415,942; May 16.
Cheese, Making. J. R. Meyers. No. 1,415,943; May 16.
Cheese packing. J. R. Meyers. No. 1,415,944; May 16.
Chimneys and open fireplaces, Lining for. H. Harvey. No. 1,416,350; May 16.
Chips, Machine for reducing turning. J. Bing. No. 1,415,861; May 16.
Chlorine derivatives of hexamethylentetramine. R. Buratti. No. 1,416,606; May 16.
Chute, Waste. J. F. Hartley. No. 1,416,022; May 16.
Cistern outlet. H. M. Minnis. No. 1,416,228; May 16.
Clamp: *See*—
Bedclothes clamp. Hose clamp.
Clamp. C. H. Hathaway. No. 1,416,351; May 16.
Clamp support. H. A. Selah. No. 1,416,386; May 16.
Cleaner: *See*—
Boiler cleaner. Flue cleaner.
Eraser cleaner.
Cleaner and polish composition. G. W. Cable. No. 1,415,866; May 16.
Clock, Astronomical. M. Bulka. No. 1,416,605; May 16.
Clock-circuit-control device. G. A. Albright. No. 1,416,592; May 16.
Clock mechanism, Self-winding. C. E. Boillot. No. 1,416,254; May 16.
Closure operator. S. P. Smurr. No. 1,416,071; May 16.
Cloth-findings dispenser. I. E. Heller. No. 1,416,293; May 16.
Clothes hanger and window ladder, Combined. J. Petyo. No. 1,416,058; May 16.
Clothes wringer. R. L. Kincaid. No. 1,416,213; May 16.
Clutch and gear, Transmission. O. O. Storlc. No. 1,416,074; May 16.
Coal, Blast-furnace tuyère can for pulverized. R. A. Wagstaff. No. 1,415,910; May 16.
Coal chute. H. Steinbach. No. 1,416,073; May 16.
Coal slimes, Utilizing. H. Brune and H. Horst. No. 1,416,546; May 16.
Cock, Ball. L. Nair. No. 1,416,496; May 16.
Coin sorter. W. L. Paul. No. 1,416,120; May 16.
Coking retort oven. J. Becker. No. 1,416,322; May 16.
Collar, Soft turndown. F. B. Twining. No. 1,416,530; May 16.
Combination lock. W. Wismiewski. No. 1,416,250; May 16.
Combustible material, Making. H. S. Mork and G. J. Esselin, Jr. No. 1,416,493; May 16.
Commutator. H. W. Howes. No. 1,415,931; May 16.
Compensator. R. M. Allen and P. Neill. No. 1,415,973; May 16.
Computing machine. A. Guindon. No. 1,416,194; May 16.
Concrete structures, Reenforcing. J. Di Stasio. No. 1,416,548; May 16.
Condenser-apron lubricator. T. Astbury. No. 1,416,313; May 16.
Container. C. D. Burton. No. 1,415,986; May 16.
Control apparatus. H. R. Meyer. No. 1,416,047; May 16.
Control apparatus, Mounting of. H. R. Meyer. No. 1,416,046; May 16.
Control, System of. R. E. Hellmund. No. 1,416,024; May 16.
Control, System of. L. J. Hibbard. No. 1,416,026; May 16.
Control, System of. H. H. Johnston. No. 1,416,033; May 16.
Control, System of. K. A. Simmon. No. 1,416,076; May 16.
Controlling apparatus. G. A. Knaak. No. 1,416,092; May 16.
Conveyer. H. J. Fischer. No. 1,415,869; May 16.
Conveying apparatus. H. C. Moen and G. H. Benson. No. 1,415,892; May 16.
Cooker, Electric fireless. W. Campbell. No. 1,416,263; May 16.
Cooker, Electric fireless. P. J. Townsend. No. 1,461,527; May 16.
Coop and feeding park therefor. R. B. Ullom. No. 1,416,531; May 16.
Copper from slag in the reverberatory furnaces, Process and apparatus for extracting. P. P. Butler and H. H. Stout. No. 1,416,262; May 16.
Copper, Method of and apparatus for recovering. H. M. Wilcox. No. 1,416,147; May 16.
Cork, Nonremovable. L. Crane. No. 1,416,616; May 16.
Countershaft brake. W. F. Groene. Nos. 1,416,016–7; May 16.
Coupling: *See*—
Car coupling. Shaft coupling.
Flexible coupling.
Coupling device. N. Hansen. No. 1,416,020; May 16.
Crate, Collapsible. A. Winter. No. 1,416,150; May 16.
Crosshead adjuster. T. Rogatchoff. No. 1,416,418; May 16.
Crucible furnace, Three-phase. C. H. Carpenter. No. 1,415,989; May 16.
Cue holder. D. M. Cua. No. 1,416,617; May 16.
Cuspidor. N. Schlesinger. No. 1,415,955; May 16.
Cutting machine. C. E. Conner. No. 1,415,921; May 16.
Cutting machine. C. W. Hottmann. No. 1,416,204; May 16.
Cymbal holder. F. M. Straight. No. 1,416,522; May 16.
Dehydration. W. J. Huff. No. 1,416,205; May 16.
Dehydration of pyridine. W. J. Huff. No. 1,416,206; May 16.
Dental castings, Mechanism for preparing molds for. E. I. Rosheim. No. 1,416,305; May 16.
Dentist's chip blower. L. Sobol and G. M. Marr. No. 1,416,241; May 16.
Desk, Movable chair. W. A. Smiley. No. 1,416,132; May 16.
Desk top. W. A. Smiley. No. 1,416,518; May 16.
Detachable wheel. J. V. Pugh. (Reissue.) No. 15,357; May 16.
Detector: *See*—
Gas detector.
Diamagnetic minerals, Process and apparatus for concentration and separation of. W. C. Hall. No. 1,416,634; May 16.
Die: *See*—
Thread-cutting die.
Die-casting apparatus. C. H. Duckworth. No. 1,416,455; May 16.
Die-casting apparatus. J. Kralund. No. 1,416,476; May 16.
Die-casting process. C. Pack. No. 1,416,412; May 16.
Dipping machine. T. Stark. No. 1,415,959; May 16.
Dirigible-light projector. M. P. Nichols. No. 1,416,119; May 16.
Dirigible spotlight. W. W. Boulineau. No. 1,415,982; May 16.
Dispensing apparatus. H. C. Litchfield. No. 1,416,219; May 16.
Display box. J. A. Bloch. No. 1,416,598; May 16.
Display box. W. F. Harvey. No. 1,416,465; May 16.
Door, Combined screen and storm. F. L. Cizek. No. 1,415,920; May 16.
Door lock. L. J. Larson. No. 1,416,365; May 16.
Door, Side-curtain. G. E. Holmes, J. M. and A. G. Bostrom. No. 1,416,028; May 16.
Door opening and closing apparatus. P. K. Strochalen. No. 1,416,138; May 16.
Door, partition, and wall, Folding. H. Woolard and J. H. F. Lodge. No. 1,416,540; May 16.
Door stop and holder. C. A. French. No. 1,416,276; May 16.
Doormats, carpets, rugs, etc., Fastener for. H. Müller. No. 1,416,051; May 16.
Doorways, Closure for. L. A. Abramson. No. 1,415,854; May 16.
Drafting device. W. J. Laubenheimer. No. 1,416,652; May 16.
Drag link. H. B. Garman. Nos. 1,416,188–9; May 16.
Dress form. E. Gurney. No. 1,416,405; May 16.
Dress shield. A. Martin. No. 1,416,044; May 16.
Drill: *See*—
Rock drill.
Drill. N. C. King. No. 1,416,647; May 16.
Dry cell. C. W. Hazelett. No. 1,415,873; May 16.
Duster. C. H. Leatherman. No. 1,416,480; May 16.
Dyeing skins, hairs, and the like. O. Kaltwasser and H. Oehrn. No. 1,416,646; May 16.
Dyes, Manufacture of diazotizable trisazo. J. Dedichen. No. 1,416,621; May 16.
Dynamo, Inherently-regulated direct-current. H. Charlet. No. 1,416,265; May 16.
Edge-trimming machine. H. D. Webb. No. 1,415,966; May 16.
Egg case. J. S. Brown and R. R. Johnson. No. 1,416,604; May 16.

Electric-arc welding. A. Churchward. No. 1,416,449; May 16.
Electric-arc-welding system. O. H. Escholz. No. 1,416,007; May 16.
Electric-current-collecting device. S. S. Matthes. No. 1,416,045; May 16.
Electric currents, Apparatus for generating. C. T. Mason. No. 1,416,110; May 16.
Electric discharging tube. B. Donath. No. 1,416,623; May 16.
Electric fan. B. Schmelzer. No. 1,416,384; May 16.
Electric heater. E. E. Gold. No. 1,416,459; May 16.
Electric heater. F. M. May. No. 1,416,225; May 16.
Electric-heater controlling device. A. Longoria. No. 1,416,482; May 16.
Electric heating device. O. A. Colby. No. 1,415,993; May 16.
Electric high-velocity classifier. C. W. J. Hedberg. No. 1,416,089; May 16.
Electric-light fixture. P. J. Pfeifer. No. 1,416,124; May 16.
Electric-machine armature, Dynamo-. H. E. Borger. No. 1,416,256; May 16.
Electric motor. E. L. P. Colardeau. No. 1,416,612; May 16.
Electric storage battery. E. Hacking. No. 1,416,195; May 16.
Electric switch and means for locking it. J. Kavana. No. 1,416,471; May 16.
Electric toaster. E. C. Floriot. No. 1,416,272; May 16.
Electric-welding method and apparatus. A. Churchward. No. 1,416,450; May 16.
Electrical controlling device. D. J. Burns. No. 1,416,446; May 16.
Electrical driving means. E. L. P. Colardeau. No. 1,416,611; May 16.
Electrical heating element. P. A. E. Armstrong. No. 1,416,436; May 16.
Electrical signaling, System for. D. C. Tanner. No. 1,416,077; May 16.
Electrical switching device. R. M. Allen. No. 1,415,972; May 16.
Electrical system. F. Punga. No. 1,416,236; May 16.
Electrode. J. W. Fay. No. 1,416,183; May 16.
Electrodes to conducting heads, Securing spark-plug. W. S. Thomas. No. 1,416,243; May 16.
Electrolytes, Treating nonaqueous. P. H. Brace. No. 1,415,983; May 16.
Elevator: *See*—
Beet elevator.
Hod elevator.
Elevator-door expansion shoe. B. Wexler. No. 1,416,247; May 16.
Elongated articles, Mechanism for feeding. C. A. Hoy. No. 1,415,932; May 16.
Engine: *See*—
Internal-combustion engine.
V-type internal-combustion engine.
Traction engine.
Engine starter. B. U. Taylor. No. 1,415,962; May 16.
Engines, Apparatus for indicating ignition failures in internal-combustion. S. Fisher. No. 1,416,457; May 16.
Engines, Cylinder of internal-combustion. G. Cattaneo. No. 1,416,170; May 16.
Engines, Electric starter for internal-combustion. F. Billon. No. 1,416,326; May 16.
Engines, Hydraulic control attachment for beating, bleaching, and washing. E. A. Peterson and W. J. McGinnis. No. 1,416,056; May 16.
Engines, Oiling system for explosive. F. L. Johnson. No. 1,416,643; May 16.
Engines, Oiling system for internal-combustion. A. Monsen. No. 1,416,490; May 16.
Engines, Reversing mechanism for internal-combustion. R. Barbour. No. 1,416,319; May 16.
Ensilage cutters, Self-feeding attachment for. H. A. Billingsley. No. 1,416,251; May 16.
Eraser cleaner. W. J. Haynes, Jr. No. 1,416,201; May 16.
Eraser-cleaning machine. W. J. Haynes, Jr. No. 1,416,200; May 16.
Escapement mechanism. E. Trost. No. 1,416,528; May 16.
Excavator and scraper. M. Collins. No. 1,416,268; May 16.
Explosive. J. R. Mardick. No. 1,415,889; May 16.
Extractor: *See*—
Centrifugal extractor.
Fasteners, Machine for inserting. J. F. Davey. No. 1,415,924; May 16.
Fastening-inserting machine. F. N. La Chapelle. No. 1,415,935; May 16.
Feed roller. J. T. Fay and L. B. Grasberger. No. 1,416,404; May 16.
Fiber-handling mechanism. L. Holland-Letz. No. 1,415,930; May 16.
Fibers, Condenser for textile. J. Dexter. No. 1,416,339; May 16.
File, Map. G. H. Barnhart. No. 1,416,661; May 16.
Files, Hand grip for. J. L. Osgood. No. 1,415,948; May 16.
Filing device. G. D. Harrah. Nos. 1,416,287–9; May 16.
Filters, Scraper for rotary. J. S. Bates. No. 1,415,859; May 16.
Finger-nail buffer. H. E. Davis. No. 1,416,619; May 16.
Fire door, safety gate, and the like. H. Backman. No. 1,415,977; May 16.
Fire extinguishing apparatus. O. R. Erwin and C. B. Flory. (Reissue.) No. 15,355; May 16.
Firearm. E. B. Andes. No. 1,415,976; May 16.
Fishing-snell carrier. C. B. Trumble. No. 1,416,142; May 16.
Fishing tool. H. C. Cooper. No. 1,415,995; May 16.
Flash hider and recoil absorber. J. S. Butler and E. Fowler. No. 1,415,919; May 16.
Flash-light holster. J. E. Wright. No. 1,416,153; May 16.
Flasks, Eccentric hinge for molding. J. Fisher. No. 1,416,629; May 16.
Flasks, Hinge for molding. J. Fisher. No. 1,416,630; May 16.
Flexible coupling. C. W. Spicer. No. 1,416,134; May 16.
Flotation agent and producing same. R. E. Sayre. No. 1,415,899; May 16.
Flow meter. A. R. Long and H. H. Turner. No. 1,416,220; May 16.
Flue and flue section. W. M. Connery. No. 1,416,334; May 16.
Flue cleaner. S. S. Poole. No. 1,415,950; May 16.
Flue-cleaning apparatus. E. M. Jenkins and R. E. Jackson. No. 1,416,209; May 16.
Fluid meter. H. N. Packard. No. 1,416,572; May 16.
Flying-machine construction. G. Caproni. No. 1,416,167; May 16.
Focusing device. W. G. Wood. No. 1,416,394; May 16.
Folding and strip-attaching mechanism. A. B. Wales. No. 1,416,310; May 16.
Folding machine. C. H. Jones. No. 1,416,298; May 16.
Folding machine. R. S. Latimer. No. 1,416,099; May 16.
Folding machines, Combined guide and work-holding device for. C. F. Althouse No. 1,416,660; May 16.
Folding table. L. J. Miller. No. 1,416,048; May 16.
Food. B. F. Swezey. No. 1,416,588; May 16.
Food ingredients, Treating nut kernels to produce. H. R. and L. E. Scott. No. 1,416,128; May 16.
Food moore. No. 1,415,893; May 16.
Food product and making same. D. G. Sell. No. 1,416,387; May 16.
Foods, Preparing stable predigested. E. Monti. No. 1,416,372; May 16.
Forging machine. F. A. Halleck. No. 1,416,635; May 16.
Frame: *See*—
Cap-spinning frame.
Fruit catcher. G. Boelman. No. 1,415,863; May 16.
Fruit from leaves, Separating. J. Buckley. No. 1,459,985; May 16.
Fruit picker. J. Moore. No. 1,415,945; May 16.
Fuel, Apparatus for forming a liquid. A. Hayes. No. 1,416,291; May 16.
Fuel burners, Connection for liquid-. G. C. Lorenz. No. 1,416,221; May 16.
Fuel control, Automatic. G. N. Blanchard. (Reissue.) No. 15,354; May 16.
Fuel-feeding mechanism. A. B. Fahnestock. No. 1,415,927; May 16.
Funnel, Fruit. M. L. Little. No. 1,416,101; May 16.
Furnace: *See*—
Crucible furnace.
Furnace. D. S. Barrows. No. 1,416,438; May 16.
Furnace. L. C. Harvey. No. 1,416,406; May 16.
Furnace. W. L. Mersfelder. No. 1,416,111; May 16.
Furnace. G. L. Perrine. No. 1,416,055; May 16.
Furnace linings, Preserving electric-. H. C. Sicard. No. 1,416,584; May 16.
Furnaces, Automatic regulation for boiler. W. J. Manhire. No. 1,415,940; May 16.
Furnaces, Supporting apparatus for use in tempering. G. M. Eaton. No. 1,416,006; May 16.
Furnaces, Wind bung for melting. D. S. Barrows. No. 1,416,439; May 16.
Furniture, Combination article of. F. C. Hall. No. 1,416,018; May 16.
Fuse for electric irons. W. H. Fayle and W. G. Crowle. No. 1,416,008; May 16.
Fuse plug. F. W. Boyd. No. 1,416,602; May 16.
Fuse, Self-renewing. S. H. Brooks. No. 1,416,258; May 16.
Game. F. A. Schaetzke. No. 1,416,068; May 16.
Game, Amusement. T. H. Pope. No. 1,416,506; May 16.
Game apparatus. A. Alexander. No. 1,416,593; May 16.
Game apparatus. H. P. Harsha. No. 1,416,356; May 16.
Game board. T. Maher. No. 1,416,107; May 16.
Garment supporter. H. V. Clausen. No. 1,416,609; May 16.
Garments and the like. L. Macheroux. No. 1,416,486; May 16.
Gas cut off, Automatic safety. P. P. Catalano. No. 1,416,169; May 16.
Gas detector. A. B. Lamb and A. T. Larson. No. 1,416,361; May 16.
Gas-generating plant. J. Lowe. No. 1,416,042; May 16.
Gas lighter. C. F. Larsen. No. 1,416,098; May 16.
Gases from liquids, Apparatus for removing. H. Fothergill. No. 1,416,632; May 16.
Gate: *See*—
Barrier gate.
Water gate.
Gear-shift-controlling mechanism. F. C. Higgins. No. 1,416,466; May 16.
Generator: *See*—
Hydrocarbon generator.
Steam generator.
Glass composition. H. T. Bellamy and B. F. Sweely. No. 1,415,980; May 16.

Glove attachment. A. Lenneberg. No. 1,416,653; May 16.
Glycerin from the weak glycerinous liquors obtained in fermentation processes, Continuous distillation of. E. A. Barbet. No. 1,416,318; May 16.
Governor. W. F. Bouché. No. 1,415,981; May 16.
Grader and material transporting vehicle, Combined. J. T. Leinberger and J. L. Roth. No. 1,415,880; May 16.
Grain-separator. W. T. Merzenich. No. 1,416,489; May 16.
Grain shoe. H. W. Campbell. No. 1,416,331; May 16.
Grass-edge trimmer. A. McWhorter. No. 1,416,106; May 16.
Grates, Center rest for boiler. L. H. Simmons. No. 1,416,131; May 16.
Grating or ventilator. W. H. Lown. No. 1,416,484; May 16.
Grinder fixture. A. C. Lindholm. No. 1,416,366; May 16.
Grinding machine. B. M. W. Hanson. Nos. 1,416,462–3; May 16.
Gum, Chewing. W. A. Steinemann. No. 1,416,242; May 16.
Gyroscopic stabilizers, Driving system for. B. G. Lamme. No. 1,416,038; May 16.
Hair clipper. C. Monroe. No. 1,416,242; May 16.
Hair curler. E. D. Baker. No. 1,416,596; May 16.
Hair curler. M. D. Meserole. No. 1,416,301; May 16.
Hammer. F. E. Shourds. No. 1,415,956; May 16.
Hammer, Air. J. W. Wolfe. No. 1,416,086; May 16.
Hand, Artificial. J. J. Everson. No. 1,416,180; May 16.
Hand grenades, projectiles, and mines, Ignition mechanism for. F. N. Bröndby. No. 1,416,662; May 16.
Handle: *See*—
Broom and brush handle. Brush handle.
Handles and the like, Attaching. U. A. Valente. No. 1,416,532; May 16.
Hanger: *See*—
Suit hanger.
Hat holder. P. Schmidt. No. 1,416,385; May 16.
Headlight. C. H. Allen. No. 1,416,434; May 16.
Headlight. T. W. Post. No. 1,416,235; May 16.
Headlight, Automobile. E. H. Mueller. No. 1,416,375; May 16.
Headlight, Dirigible. A. N. Goodwin and W. Sutherland. No. 1,416,014; May 16.
Heat-controlling device. R. G. Barzen. No. 1,416,544; May 16.
Heat exchanger. H. V. Barclay. No. 1,416,320; May 16.
Heater: *See*—
Electric heater. Water heater.
Heater. R. G. Boone. No. 1,416,255; May 16.
Heater. G. S. Meikle. No. 1,415,890; May 16.
Heater and ventilator. J. A. Greene. No. 1,416,346; May 16.
Heater and ventilator, Combined. R. G. Boone. No. No. 1,416,601; May 16.
Heating apparatus. J. I. Herbert. No. 1,416,025; May 16.
Heating pad, Electric. A. Longoria. No. 1,416,481; May 16.
Heel, Resilient. E. Fuzessery. No. 1,416,279; May 16.
Heeling machine. B. F. Mayo. No. 1,415,941; May 16.
Hinge. F. A. Langston and G. A. Hoard. No. 1,416,039; May 16.
Hinge. S. W. Lyman. No. 1,416,656; May 16.
Hod elevator. C. W. Anderson. No. 1,416,395; May 16.
Horn, Diaphragm warning. L. E. Cowey. No. 1,416,452; May 16.
Horse overshoes, Central connecting member for. E. A. Conner. No. 1,416,333; May 16.
Horseshoe. M. Michelsen. No. 1,416,658; May 16.
Horseshoe. F. D. Young. No. 1,416,541; May 16.
Hose and making same. N. S. Dodge. No. 1,416,400; May 16.
Hose clamp. J. Gentile. No. 1,416,012; May 16.
Hose supporter. N. M. Lancaster. No. 1,416,650; May 16.
Housing device, Portable. J. S. White. No. 1,416,146; May 16.
Hydrocarbon generator. G. N. Blanchard. No. 1,416,328; May 16.
Ice pick. J. A. McWilliams. No. 1,415,887; May 16.
Index tab. R. J. Turner. No. 1,416,529; May 16.
Indicating system, Electrical. W. A. Lurie. No. 1,416,485; May 16.
Indicator: *See*—
Speed indicator. Street indicator.
Inlaid work, Producing. J. Kaufman. No. 1,416,212; May 16.
Inner-tube tester. E. Knott. No. 1,416,649; May 16.
Insecticide. M. L. Tower. No. 1,416,526; May 16.
Insulation and making same. W. H. Kempton. No. 1,416,036; May 16.
Integration calculations, Integrating apparatus for graphic. L. Sparr. No. 1,416,519; May 16.
Internal-combustion engine. C. G. Barrett. No. 1,415,858; May 16.
Internal-combustion engine. P. P. Bourne. No. 1,415,864; May 16.
Iron: *See*—
Soldering iron.
Ironing board. A. Swanson. No. 1,415,961; May 16.
Jacking apparatus. J. Gutmann, Jr. No. 1,416,633; May 16.
Jar closure. N. T. Tofting. No. 1,415,908; May 16.
Joint: *See*—
Rail joint.
Journal boxes, Waste retainer for. R. G. McKee. No. 1,416,105; May 16.
Key ring. P. Joffe. No. 1,415,934; May 16.
Kiln: *See*—
Rotary kiln.
Kiln. R. K. Meade. No. 1,416,657; May 16.
Kiln for burning cement, Rotating. N. Winqvist. No. 1,415,970; May 16.
Kiln, Rotary. A. B. Carstens. No. 1,415,990; May 16.
Knife-blade switch. R. Freund. No. 1,416,185; May 16.
Knitting machine. P. H. Fryer. No. 1,416,186; May 16.
Knitting machine, Spring-needle. G. P. Bosworth. No. 1,416,257; May 16.
Lacing, Apparel. O. Hobson. No. 1,416,203; May 16.
Lamp, Electric. L. C. Kuehner. No. 1,416,096; May 16.
Lamp-position controller. W. S. Nathan. No. 1,416,376; May 16.
Lamp socket. W. M. Carter. No. 1,416,607; May 16.
Lamp, Switchboard. J. M. Brown. No. 1,415,984; May 16.
Lamps, Generator for electric. S. Rosengart. No. 1,416,513; May 16.
Lamps, Manufacture of incandescent electric. F. Harrison. No. 1,416,197; May 16.
Latch. S. P. Gehret. No. 1,415,871; May 16.
Latch. M. J. C. A. Maurer. No. 1,416,370; May 16.
Latch, Door. C. Munzner. No. 1,416,495; May 16.
Lathe center. R. F. Lusk. No. 1,416,102; May 16.
Laundry bundling, packing, and wrapping device. R. W. Barrier. No. 1,416,160; May 16.
Leather, Making artificial. R. B. Respess. No. 1,416,064; May 16.
Ledger sheet. J. A. B. Smith. No. 1,415,904; May 16.
Ledger sheet. J. A. B. Smith. No. 1,416,239; May 16.
Leer and operating same, Rotating. J. Bailey. No. 1,416,595; May 16.
Lens. H. H. Marriott. No. 1,416,109; May 16.
Lenses, Making bifocal. L. W. Bugbee. No. 1,416,444; May 16.
Lettering instrument. O. A. Olson. No. 1,416,411; May 16.
Life preserver. J. Strobel. No. 1,416,523; May 16.
Lifeboat-releasing mechanism. A. D. Newcomb. No. 1,416,498; May 16.
Lifting jack, Roller-base. T. M. Avery. No. 1,415,857; May 16.
Light and structure, Combined. J. C. Hobbs. No. 1,416,467; May 16.
Light visor, Adjustable. C. H. Tumey, Sr. No. 1,416,245; May 16.
Lighting fixture. M. A. Healy and W. I. Kirk. No. 1,416,664; May 16.
Lightning rods or ground wires, Retainer for. H. A. Taylor. No. 1,416,525; May 16.
Lithographing. G. B. Wedow. No. 1,416,311; May 16.
Loader. G. C. Nuesse. No. 1,416,118; May 16.
Loading, Method of and apparatus for. W. L. Saunders. No. 1,416,515; May 16.
Lock: *See*—
Automobile time lock. Nut lock.
Combination lock. Window lock.
Door lock.
Locking device for motor vehicles. R. Baer and H. Kopp. (Reissue.) No. 15,353; May 16.
Locomotive for light railways. F. H. Dutton. No. 1,416,625; May 16.
Loom, Leno or cross weaving. F. J. Norris. No. 1,416,410; May 16.
Loom picker. M. B. Fredericks. No. 1,416,274; May 16.
Loom shuttle. S. Krawczyk and A. König. No. 1,416,095; May 16.
Looms, Cop-holding skewer for. W. H. Baker. No. 1,416,157; May 16.
Looms, Feeler mechanism for. A. E. Rhoades. No. 1,416,510; May 16.
Lubricator: *See*—
Condenser-apron lubricator.
Lubricator. C. C. Crispen. No. 1,415,997; May 16.
Machine tools, Cross-feed mechanism for. C. H. Norton. No. 1,416,054; May 16.
Magnetos, Collector and distributor system for high-tension. H. O. Putt. No. 1,416,507; May 16.
Measuring implement, Universal. E. F. Kirgan. No. 1,416,473; May 16.
Meat-handling apparatus. H. W. Brown. No. 1,416,443; May 16.
Metal articles, Cutting, shaping, and polishing. D. Lacy. No. 1,415,879; May 16.
Metal wheel. R. J. Burrows. No. 1,416,330; May 16.
Meter: *See*—
Flow meter. Fluid meter.
Micrometer attachment. J. A. Obole. No. 1,416,573; May 16.
Milk box. W. C. Young. No. 1,416,542; May 16.
Milk centrifuges, Lubricating device for. H. Holte. No. 1,416,640; May 16.
Milking-machine-operating system. M. Leitch. No. 1,415,882; May 16
Mills, Automatic control for. A. E. Jupp and R. Crooks. No. 1,416,211; May 16.
Mine-loading machine. J. P. Mosier and E. R. Campbell. No. 1,416,050; May 16.
Mirror and vanity case, Combined. R. Marcher. No. 1,416,223; May 16.
Mixing-device agitator. H. G. Levy. No. 1,416,100; May 16.

Mold: *See*—
Shingle mold.
Molding flask. E. C. Hafer. No. 1,416,349; May 16.
Motor: *See*—
Electric motor. Water motor.
Motor-control system. J. H. Albrecht. No. 1,415,971; May 16.
Motor-control system. G. R. Irwin. No. 1,416,032; May 16.
Motor-cycle. F. E. Baker and T. J. Biggs. No. 1,416,315; May 16.
Mouth wash. E. London. No. 1,416,666; May 16.
Musical instruments, Cutoff valve for pneumatically-operated. M. W. Obermiller. No. 1,415,894; May 16.
Musical instruments, Means for securing the strings of. L. Mazzocco. No. 1,416,568; May 16.
Nail strings, Machine for making. A. Latham. No. 1,415,936; May 16.
Net, Landing. F. Bartos. No. 1,416,543; May 16.
Nonskid unit, Chain. J. R. Reyburn. No. 1,416,382; May 16.
Nozzle. G. A. Gieseler. No. 1,416,013; May 16.
Nut blank and locking nut. I. C. Woodward. No. 1,416,087; May 16.
Nut lock. R. M. Hatch. No. 1,416,292; May 16.
Nut meats from broken nuts, Separator for. A. Stables. No. 1,416,585; May 16.
Nut-tapping machine. P. N. Spurk and R. Stramitz. No. 1,416,135; May 16.
Oil and gas burner. W. M. Oney. No. 1,416,574; May 16.
Oil and gasoline, Vacuum sampler for tanks of refined. C. E. Johnson. No. 1,416,554; May 16.
Oil burner. J. M. Seymour, Jr. No. 1,416,424; May 16.
Oil paintings, Reproducing. H. P. G. Steedman. No. 1,416,388; May 16.
Oil projectile. E. R. and O. H. Cramer. No. 1,416,615; May 16.
Oil purifier, Centrifugal. M. Leitch. No. 1,415,881; May 16.
Oiling device. W. Y. Headley. No. 1,416,202; May 16.
Ores, Treating sulphide. C. J. Reed. No. 1,415,897; May 16.
Organ-stop action, Combination. E. Louis. No. 1,416,367; May 16.
Oven burner. F. G. Nicolaus. No. 1,416,500; May 16.
Oven charger. B. B. Kahn. No. 1,416,034; May 16.
Packing gland. A. E. Osborn. No. 1,416,232; May 16.
Pad: *See*—
Electric heating pad.
Painting, Obtaining of grain and like effects in. W. Berry. No. 1,416,325; May 16.
Pan: *See*—
Baking pan.
Peas, Shelling. C. H. Plummer. No. 1,415,896; May 16.
Pen, Fountain. O. Mitchell. No. 1,416,302; May 16.
Pencil. C. Stehl. No. 1,416,137; May 16.
Penmanship, Device for teaching. W. C. Lowe. No. 1,416,564; May 16.
Perforating machine. C. R. Carleton. No. 1,416,168; May 16.
Petroleum-refining apparatus, Continuous. C. A. Jouett. No. 1,415,876; May 16.
Phonograph driving means. H. K. Sandell. No. 1,416,306; May 16.
Phonograph needle. H. Legge. No. 1,416,216; May 16.
Phonographic sound box. D. A. Sealey. No. 1,416,582; May 16.
Phonograph stop mechanism. C. Schatte. No. 1,415,954; May 16.
Phonographic-print-washing machine. G. M. Dye. No. 1,416,402; May 16.
Photographic-tray rocker. M. E. Anderson. No. 1,416,396; May 16.
Piano, Grand. J. H. Williams. No. 1,416,248; May 16.
Picker: *See*—
Fruit picker. Loom picker.
Picture cartoons, Method and apparatus for producing moving. W. F. Ahbe. No. 1,416,154; May 16.
Pile protector. W. E. Dashwood. No. 1,416,618; May 16.
Pipe: *See*—
Tobacco pipe.
Pipe sections, Making cast-iron. L. A. Griffin. No. 1,416,460; May 16.
Piston and piston ring. J. W. Kerns. No. 1,416,472; May 16.
Piston engines, Apparatus for measuring and indicating the pressure or the output of. D. Fischmann. No. 1,416,456; May 16.
Piston ring. A. F. Froussard. No. 1,416,011; May 16.
Plow. R. Whipple. No. 1,416,392; May 16.
Poles, masts, etc., which are set in the ground and have been damaged by weather influences, Manufacture of reenforcements for wooden. F. Jaeckle and P. Mehlhorn. No. 1,416,641; May 16.
Polishing table. M. W. Obermiller. No. 1,415,895; May 16.
Post. J. W. Stalder. No. 1,416,586; May 16.
Potatoes and the like, Apparatus for planting. W. Lippitz. No. 1,415,937; May 16.
Powder, Cleaning. J. W. Smith. No. 1,416,240; May 16.
Powder dispenser. F. McLaughlin. No. 1,416,043; May 16.
Power transmission and control. E. M. Fraser. No. 1,416,273; May 16.
Power-transmission mechanism. W. E. Bock. No. 1,416,163; May 16.
Power-transmitting device. R. Z. Farmer. No. 1,416,182; May 16.
Press. G. W. Beadle. No. 1,416,441; May 16.
Pressure-operated switch. T. D. Montee. No. 1,416,491; May 16.
Printing machine. J. S. Thompson. No. 1,416,390; May 16.
Printing-press feed gauge. E. L. Megill. No. 1,416,488; May 16.
Protractor. F. O. Knuusi. No. 1,416,357; May 16.
Puller: *See*—
Wheel puller.
Pulley. C. E. Reddig. No. 1,416,063; May 16.
Pulp-drying machine, Centrifugal. R. C. Mabry. No. 1,415,939; May 16.
Pulp used in the manufacture of paper, Apparatus for making. C. W. Shartle. No. 1,415,902; May 16.
Pulverulent material from bulk, Means for abstracting. A. Redler. No. 1,416,416; May 16.
Pump. G. and C. Burd. No. 1,416,445; May 16.
Pump, Condenser. E. Anderson. No. 1,415,975; May 16.
Pump, Deep-well. G. L. Fuller. No. 1,416,277; May 16.
Pump, Oscillating. A. B. Cook. No. 1,416,174; May 16.
Pump plunger. T. M. Adams. No. 1,415,911; May 16.
Pump, Pressure. C. H. Atkins. No. 1,416,314; May 16.
Punch-press guard. B. D. Rhodes. No. 1,416,511; May 16.
Radiator core. A. B. Modine. No. 1,416,570; May 16.
Radiator for motor vehicles. B. P. F. Deane. No. 1,416,337; May 16.
Radio-receiving system having high selectivity. M. I. Pupin and E. H. Armstrong. No. 1,416,061; May 16.
Radius tool. A. Sheberashenko. No. 1,415,903; May 16.
Rail, Conductor. E. B. Grace and W. J. Laffey. No. 1,416,192; May 16.
Rail-drilling device. P. G. Bodwell. No. 1,416,600; May 16.
Rail joint. S. R. Weeks and C. C. Brown. No. 1,416,144; May 16.
Rail joint and car replacer. C. L. Petty. No. 1,416,504; May 16.
Rail spring. E. Woodings. No. 1,416,152; May 16.
Railway friction draft rigging. W. H. Miner and J. F. O'Connor. No. 1,416,113; May 16.
Railway rail anchor. G. A. Prather. No. 1,416,576; May 16.
Railway rails, Anticreeping device for. C. H. Knell. No. 1,416,474; May 16.
Railway signal. R. A. McCann. No. 1,415,886; May 16.
Railway trains, Heating system for. H. G. Geissinger. No. 1,415,872; May 16.
Rammers, Butt for sand. E. W. Stevens. No. 1,415,905; May 16.
Range. J. F. Lamb. No. 1,416,478; May 16.
Ranges, Control system for electric. F. F. Forshee. No. 1,416,009; May 16.
Ratchet mechanism. E. W. Bullard. No. 1,416,316; May 16.
Razor-blade guard and face plate. H. S. Hasselquist. No. 1,416,199; May 16.
Razor, Safety. W. J. Klauberg. No. 1,416,090; May 16.
Razor, Safety. T. F. Murphy. No. 1,416,571; May 16.
Reed instrument, Vibrating. K. G. Frank. No. 1,416,550; May 16.
Reeling machines, Attachment for. C. J. De Coster. No. 1,416,000; May 16.
Refrigerating apparatus. L. G. Copeman. No. 1,415,922; May 16.
Refrigerating plant. J. Morawski. No. 1,416,492; May 16.
Refrigerator. F. Stoltman and W. Sumner. No. 1,416,389; May 16.
Register: *See*
Autographic register.
Repair stand. L. A. Wilson. No. 1,415,968; May 16.
Reserve-supply tank. F. E. Gubin. No. 1,416,554; May 16.
Resilient wheel. L. Horschetzky. No. 1,416,408; May 16.
Resilient wheel. J. R. McFall. No. 1,416,104; May 16.
Resilient wheel. A. C. Taylor. No. 1,416,078; May 16.
Resin and making same, Coumarone. L. Rabinovitz. No. 1,416,062; May 16.
Rifle. N. Pieper. No. 1,416,234; May 16.
Rifle grenade and hand grenade, Combined. F. N. Brondby. No. 1,416,545; May 16.
Rim, Demountable. M. B. Barszczewski. No. 1,416,440; May 16.
Rim, Demountable. R. H. Pierce and G. A. Anderson. No. 1,416,505; May 16.
Rims, Bolt lock for demountable. W. E. Lott. No. 1,415,938; May 16.
Ring: *See*—
Key ring. Piston ring.
Rivet-feeding mechanism. A. F. Renaud. No. 1,416,509; May 16.
Rock drill. W. A. Smith. No. 1,415,957; May 16.
Rock drills, Automatic air-feed control for. W. A. Smith. No. 1,415,958; May 16.
Roller: *See*—
Feed roller.
Roller bearing. S. G. Wingquist. No. 1,415,969; May 16.
Roof-scraping machine. J. S. Perelman. No. 1,415,949; May 16.

Roofing shingle strip, Prepared. R. B. Crabbs. No. 1,415,923; May 16.
Roofing tile. J. Seiler and E. Reiff. No. 1,416,583; May 16.
Rotary ventilator. W. F. Hirschman. No. 1,416,295; May 16.
Roving and similar machines, Detector for. T. Bentley. No. 1,415,917; May 16.
Safety and match box. I. Horwath. No. 1,416,559; May 16.
Sash and casement, and lock therefor, Interlocking swinging. G. W. Lancaster. No. 1,416,097; May 16.
Saw set. P. Morin. No. 1,416,374; May 16.
Scaffold machine. P. Hoitsma. No. 1,416,296; May 16.
Scraping or leveling machine. F. R. Morton. No. 1,416,494; May 16.
Screw-holding anchor. C. N. Ackerman. No. 1,416,433; May 16.
Scrubbing board, Floor-. C. P. Williams. No. 1,416,429; May 16.
Seed-breeding and infection purposes, Insulating case for. M. Plaut. No. 1,416,575; May 16.
Separator: *See*—
Centrifugal dust separator. Grain separator.
Separator. A. Levedahl. No. 1,416,040; May 16.
Serving tray. M. Timmelfarb. No. 1,416,294; May 16.
Swing machine. A. H. De Voe. No. 1,416,002; May 16.
Sewing machine. A. H. De Voe. No. 1,416,005; May 16.
Sewing machine, Buttonhole-. A. H. De Voe. No. 1,416,004; May 16.
Sewing machine, Pedal apparatus for. H. Berggraf. No. 1,416,324; May 16.
Sewing machines, Work-shifting mechanism for. A. H. De Voe. No. 1,416,003; May 16.
Shade and curtain hanger, Combination. C. Kondracki. No. 1,416,093; May 16.
Shaft coupling. T. C. Dobbins. No. 1,416,341; May 16.
Shaft, Yieldable drive. R. E. Carter. No. 1,416,264; May 16.
Shelf incinerator, Multiple-. C. H. S. Williamson. No. 1,416,430; May 16.
Shield, Manifolding. P. C. Huntly. No. 1,416,352; May 16.
Shingle mold. J. M. Van Houten. No. 1,416,079; May 16.
Ship construction. C. Ahola. No. 1,416,155; May 16.
Ship-indicating-device, Sunken. G. Czeperko. No. 1,416,336; May 16.
Shipping and dispensing box. M. E. Chapin. No. 1,416,448; May 16.
Shock absorber. C. A. Wiberg. No. 1,416,537; May 16.
Shoe holder. S. C. Pedersen and A. J. Nowakowski. No. 1,416,378; May 16.
Shoes, Binder for use in lasting. C. F. Pym. No. 1,415,951; May 16.
Sifter. M. D. Brown. No. 1,416,260; May 16.
Sifter. C. Werner. No. 1,416,145; May 16.
Signal: *See*—
Railway signal.
Signal. G. R. Marsico. No. 1,416,224; May 16.
Silo. G. W. Wetzel. No. 1,416,534; May 16.
Silver, gold, platinum, etc., Method and means for cleaning. W. W. Everts. No. 1,416,403; May 16.
Siphon-control device. A. W. Brater. No. 1,416,603; May 16.
Slag, Obtaining granular. W. Schumacher. No. 1,416,069; May 16.
Sled. W. Kaittila. No. 1,415,877; May 16.
Smoke-filtering medium. A. L. Clapp. No. 1,416,266; May 16.
Snow leveler and packer. J. M. Le Valley. No. 1,416,563; May 16.
Snowplow. L. Bedford. No. 1,415,979; May 16.
Soap, Process and apparatus for manufacturing. E. M. Loveland. No. 1,416,483; May 16.
Soldering iron. A. G. Quiry. No. 1,416,508; May 16.
Sound record and producing the same. V. H. Emerson. No. 1,416,342; May 16.
Spacing machine. G. P. Kline. No. 1,416,299; May 16.
Spark plug. M. B. Hill. No. 1,416,557; May 16.
Spat or legging. C. F. O. Seibert. No. 1,416,421; May 16.
Speed friction drive, Variable-. M. Balcker. No. 1,416,158; May 16.
Speed indicator, Rotary. E. J. Wilson. Nos. 1,416,082–4; May 16.
Speed-integrating mechanism. K. T. F. Jung and G. H. Petersson. No. 1,416,210; May 16.
Speed-regulating device. W. P. McNeel. No. 1,416,567; May 16.
Spotlight brackets, Clamp for. R. E. Williams. No. 1,416,148; May 16.
Spout, Pouring. F. Tunnicliff. No. 1,416,309; May 16.
Spraying apparatus. J. A. Rhodes. No. 1,416,065; May 16.
Spring: *See*—
Rail spring.
Spring friction clutch with auxiliary clutch, Helical-. A. Gmeinder. No. 1,416,283; May 16.
Spring wheel. L. L. Savoie. No. 1,416,516; May 16.
Sprinkler. D. F. McGill. No. 1,416,222; May 16.
Stack-forming apparatus. R. A. Minks. No. 1,415,891; May 16.
Staff or bandle connection. T. A. English. No. 1,416,626; May 16.
Stamping machine. W. E. Bishop. No. 1,416,442; May 16.
Stand: *See*—
Repair stand. Tape-measure stop-motion stand.
Switch stand.
Station, Receiving. L. M. Clement. No. 1,415,992; May 16.
Steam-boiler economizers, Method of and apparatus for operating. D. S. Jacobus. No. 1,416,353; May 16.
Steam generator. J. B. Rogillio. No. 1,415,952; May 16.
Steam generators, Means for using pulverized fuel in the furnaces of. J. G. Robinson. No. 1,416,512; May 16.
Steering wheel. A. E. Paige. No. 1,416,413; May 16.
Steering wheel, Foldable. D. A. Hanes. No. 1,416,636; May 16.
Stirrer. W. O. Chace. No. 1,416,332; May 16.
Stokers, Operating mechanism for automatic. E. B. Bryant. No. 1,416,547; May 16.
Stopcock. G. T. Conrath. No. 1,416,173; May 16.
Stopper: *See*—
Bottle stopper.
Storage-battery-ventilating system. C. C. King. No. 1,416,214; May 16.
Stove, Heating. A. P. Thomasson. No. 1,416,140; May 16.
Stoves, Hot-blast. L. M. Hartwick and P. J. Brown. No. 1,416,198; May 16.
Street indicator. J. R. Hume. No. 1,415,933; May 16.
Suit hanger. W. F. Wagner. No. 1,416,143; May 16.
Sulpho-aromatic substances for use in the decomposition of fats, Producing. A. Godal. No. 1,416,284; May 16.
Surface grinders, Water-control system for. C. Knowles. No. 1,416,475; May 16.
Surgical instrument. A. Saperstein. No. 1,416,514; May 16.
Suspenders. O. Croasdale. No. 1,416,335; May 16.
Sweeper, Motor-driven pick-up. M. V. Liddell. No. 1,416,041; May 16.
Swing, Lawn. L. R. Houchens. No. 1,416,560; May 16.
Switch: *See*—
Knife-blade switch. Pressure-operated switch.
Switch frog. B. P. Gilmour. No. 1,416,458; May 16.
Switch stand. W. M. Brown. No. 1,416,397; May 16.
Switch stand. I. K. Dixon. No. 1,416,399; May 16.
Syringe with progressively-graduated automatic action. J. Cournand. No. 1,416,614; May 16.
Table: *See*—
Folding table. Polishing table.
Tack machine. E. O. Starka. No. 1,416,136; May 16.
Tank: *See*—
Reserve-supply tank.
Tag, Price. F. Kohnle. No. 1,416,665; May 16.
Talking machine. V. Fegley. No. 1,416,549; May 16.
Tape-selvage stop-motion stand. J. A. Sorrells. No. 1,416,133; May 16.
Teapot and coffeepot. W. G. Barratt. No. 1,416,321; May 16.
Teeth and applying same, Filling anchor for. G. Holtz. No. 1,416,558; May 16.
Telephone-exchange system. W. P. Andrick and J. F. Dahl. No. 1,415,853; May 16.
Telephone-exchange system. E. E. Clement. No. 1,416,088; May 16.
Telephone-exchange system. H. L. Meade. No. 1,416,226; May 16.
Telephone mouthpiece, Sanitary. A. A. Freedman. No. 1,416,275; May 16.
Telephone repeater. B. C. Groh. No. 1,416,663; May 16.
Telpherage system. W. E. Harrison. No. 1,416,021; May 16.
Textile rovings with feeding belts, Drawing mechanism for. F. Casablancas. No. 1,416,608; May 16.
Thread-cutting die. C. J. Pihl, now C. J. Piel. No. 1,416,059; May 16.
Threads, Indicator of stripped. L. L. Schauer. No. 1,416,579; May 16.
Thumb and finger protector. A. E. Detwiler. No. 1,416,001; May 16.
Tie: *See*—
Bale tie.
Tile, Interlocking. V. E. Taylor. No. 1,415,906; May 16.
Timepieces, Spring click for. E. H. Horn. No. 1,416,407; May 16.
Timer. D. S. Haynes. No. 1,416,638; May 16.
Tire carrier. J. Galamb. No. 1,415,870; May 16.
Tire changing device, Pneumatic truck. G. C. Brown. No. 1,415,865; May 16.
Tire flap. J. R. Gammeter. No. 1,416,187; May 16.
Tire grip and tightener therefor, Chain. H. W. Loder. No. 1,416,300; May 16.
Tire, Pneumatic vehicle. H. S. Blynt. No. 1,416,252; May 16.
Tire, Pneumatic vehicle. J. Bobek. No. 1,416,253; May 16.
Tire, Punctureproof. E. J. Moran. No. 1,416,049; May 16.
Tire-setting machine. T. Krauska. No. 1,416,094; May 16.
Tire tool, Bench. J. W. Barton. No. 1,415,916; May 16.
Tire, Vehicle. G. M. Collins. No. 1,415,994; May 16.
Tire, Vehicle. W. C. Peck. No. 1,416,303; May 16.
Tires, Mold for pneumatic. H. M. Lambert. No. 1,416,362; May 16.
Tobacco pipe. J. Riedel. No. 1,416,066; May 16.
Tobacco pipe. L. Suedmeyer. No. 1,416,425; May 16.

Tool, Combination. A. B. Hance. No. 1,416,461; May 16.
Tool, Subdividing. J. F. Bergander. No. 1,416,323; May 16.
Toothbrush. B. H. Rost. No. 1,415,898; May 16.
Toy. H. E. House. No. 1,416,029; May 16.
Toy, Figure. M. J. Duff. No. 1,416,624; May 16.
Track cleaning device. O. J. Olson. No. 1,416,231; May 16.
Traction device. A. Scotti. No. 1,416,237; May 16.
Traction engine. V. V. Peone. No. 1,416,379; May 16.
Tractor. A. M. Schlagel. No. 1,416,127; May 16.
Tractor. W. G. Wilms. No. 1,416,539; May 16.
Tractor, Four-wheel-drive. S. Blodgett. No. 1,416,329; May 16.
Tractors and trailers, Means for coupling. M. Leytens. No. 1,416,217; May 16.
Tractors, Combination tongue and seat support for. A. D. Cole. No. 1,416,171; May 16.
Train-control mechanism. H. E. Jamison. No. 1,416,470; May 16.
Train-control system, Automatic. F. L. Dodgson. No. 1,416,622; May 16.
Train-stopping device. C. W. Marden. No. 1,416,108; May 16.
Transmission, Dual. M. A. Griffin. No. 1,416,285; May 16.
Transmission equalization arrangement. L. H. Darrow. No. 1,415,868; May 16.
Transmission over lines of different electrical characteristics, Means for equalizing. G. K. Thompson. No. 1,415,907; May 16.
Transmitter, Call-box. A. Atherton. No. 1,416,594; May 16.
Tray and filling device, Church communion. W. J. Rainey. No. 1,416,126; May 16.
Trimmer: *See*—
Grass-edge trimmer.
Trimming machine, Lining-. M. W. White. No. 1,415,967; May 16.
Tripping device. C. B. Beyer. No. 1,416,161; May 16.
Trolley guard. G. G. Cooper. No. 1,416,398; May 16.
Trolley-wheel mount. G. O. Burwell and C. M. Kurtz. No. 1,415,987; May 16.
Trousers pattern. A. J. Rose. No. 1,416,383; May 16.
Trowel. W. M. Stout. No. 1,416,521; May 16.
Truck, Elevating. F. L. Eidmann. No. 1,415,926; May 16.
Truck for waste material. C. H. Norton. (Reissue.) No. 15,356; May 16.
Truck, Hand. H. Volkman. No. 1,416,427; May 16.
Trunk, Wardrobe. J. Rauchbach. No. 1,416,415; May 16.
Trunks, Hanger support for wardrobe. T. M. House. No. 1,416,030; May 16.
Tube: *See*—
Electric discharging tube.
Tubing machines, Strainer head for. V. Royle. No. 1,416,067; May 16.
Tubs and sinks, Fitting for. P. Connolly. No. 1,416,172; May 16.
Tunnels, Trolley guard for. C. T. Whaley. No. 1,416,535; May 16.
Turntable. A. Vasselli. No. 1,416,080; May 16.
Typewriter desk. J. Vaaler. No. 1,415,909; May 16.
Typewriting and computing machine, Combined. H. Hanson. No. 1,416,464; May 16.
Typewriting and computing machine, Combined. W. J. Hausman. No. 1,416,023; May 16.
Typewriting and computing machine, Combined. B. C. Stickney. No. 1,416,520; May 16.
Typewriting and computing machine, Combined. J. Waldheim. No. 1,416,428; May 16.
Typewriting machine. A. E. Howell. No. 1,416,031; May 16.
Unloading device. E. J. Gass and D. W. Thurston. No. 1,416,190; May 16.
V-type internal-combustion engine. S. S. Guy. No. 1,416,348; May 16.
Vacuum filling machine. A. J. Gosselin. No. 1,416,345; May 16.
Valve. J. Van Brunt. No. 1,416,391; May 16.
Valve. F. J. Couch. No. 1,416,175; May 16.
Valve. H. Wilhelms. Nos. 1,416,590–1; May 16.
Valve. W. G. Wilson. No. 1,416,431; May 16.
Valve, Dispensing. L. Kooperstein. No. 1,416,037; May 16.
Valve, Flush. R. R. Banta. No. 1,416,317; May 16.
Valve for fire extinguishers, Dry-pipe. L. M. Lewis. No. 1,415,884; May 16.
Valve for milking machines. J. T. Buckwalter and F. T. Flinchbaugh. No. 1,416,166; May 16.
Valve, Plate. T. J. Hart. No. 1,416,637; May 16.
Vanity-case assemblage. A. Lenneberg. No. 1,416,654; May 16.
Vanity case or powder box. A. M. Peacock. No. 1,416,503; May 16.
Vapor medicating apparatus. H. B. Thompson. No. 1,416,244; May 16.
Vapors and means for utilizing the same, Recovering solids from. J. P. Kirkup. No. 1,416,215; May 16.
Vaporizer. C. Wittenmyer. No. 1,416,151; May 16.
Vehicle body inclosure. J. B. Fisher. No. 1,415,928; May 16.
Vehicle, Direction signal for motor. J. G. Hieb. No. 1,416,027; May 16.
Vehicle disk wheel. W. E. Williams. No. 1,416,149; May 16.
Vehicle safe. W. Ehrlich. No. 1,416,179; May 16.
Vehicle tops, Fastening device for. C. R. Allen. No. 1,416,435; May 16.
Vehicle wheel. H. F. Cleeve. No. 1,415,991; May 16.
Vehicle wheel. A. L. Putnam. (Reissue.) No. 15,358; May 16.
Vehicle wheel rim. J. C. Theberath. No. 1,415,963; May 16.
Vehicles, Front wheel drive for mechanism for motor. F. L. Freeman. No. 1,416,010; May 16.
Vehicles, Resilient wheel for. A. T. Maltby. No. 1,415,888; May 16.
Vehicles, Spring support for. A. Hupp. No. 1,416,469; May 16.
Vehicles, Telephone attachment for motor. J. A. Moren. No. 1,416,116; May 16.
Vehicles, Train of. E. L. P. Colardeau. No. 1,416,613; May 16.
Vending machine. S. C. Barr. No. 1,416,159; May 16.
Ventilator: *See*—
Rotary ventilator.
Vibrator. B. Giliberti. No. 1,416,281; May 16.
Violin shoulder rest. G. W. Jordan. No. 1,416,644; May 16.
Vulcanizing, Method and apparatus for continuous. O. Grosvenor. No. 1,415,929; May 16.
Washing machines, Driving mechanism for. J. F. Lamb. No. 1,416,479; May 16.
Watches, etc., Hand and indicator for. H. F. Cuntz. No. 1,416,176; May 16.
Water-cooled machines, Accelerator for. S. E. Allen. No. 1,415,974; May 16.
Water-elevating device. W. A. Stuart. No. 1,416,075; May 16.
Water gate. T. F. Ferguson. No. 1,416,628; May 16.
Water-gauge column. J. G. Blunt and H. Swoyer. No. 1,415,862; May 16.
Water heater, Gas. V. Mauck. No. 1,416,487; May 16.
Water motor. T. and T. F. M. Crisp. No. 1,415,996; May 16.
Water-tight doors, Locking device for. J. L. Silverman and J. W. Shields. No. 1,416,308; May 16.
Weaving machine, Circular. C. J. Feuerstein. No. 1,416,344; May 16.
Wedge lifts, Forming stacks of. E. E. Winkley. No. 1,416,085; May 16.
Weeding implement. J. L. Florin. No. 1,416,631; May 16.
Weighing apparatus. J. Kralund. No. 1,416,477; May 16.
Weighing machine, Automatic. H. V. Adam. No. 1,416,312; May 16.
Weighing mechanism. H. B. Bartlett. No. 1,415,915; May 16.
Welding device, Electric. L. S. Lachman. No. 1,416,360; May 16.
Welding wires, Side-. L. S. Lachman. No. 1,416,359; May 16.
Well-rod socket. J. A. Day. No. 1,416,620; May 16.
Wheel: *See*—

Detachable wheel.	Spring wheel.
Foldable steering wheel.	Steering wheel.
Metal wheel.	Vehicle wheel.
Resilient wheel.	Vehicle disk wheel.

Wheel and producing same, Pressed-steel. J. F. Surridge. No. 1,416,524; May 16.
Wheel construction, Cushion-. J. J. Morand. No. 1,416,373; May 16.
Wheel-dressing mechanism. B. M. W. Hanson. No. 1,416,667; May 16.
Wheel puller. M. M. Sauers. No. 1,416,578; May 16.
Wheels, Rim lug for vehicle. R. C. Kleffman. No. 1,416,648; May 16.
Whipper. E. H. Berg. No. 1,416,597; May 16.
Wind and rain shield. G. F. Miles. No. 1,416,112; May 16.
Winding and dyeing machine. E. A. Thompson. No. 1,415,964; May 16.
Windmill. C. Nolan. No. 1,416,052; May 16.
Window-cleaning apparatus. J. Gazdzicki. No. 1,416,280; May 16.
Window lock. M. T. A. Kelly. No. 1,416,035; May 16.
Window sill, Auxiliary. H. Johnson. No. 1,416,561; May 16.
Window, Storm. J. Peterson. No. 1,416,057; May 16.
Windshield canopy. C. M. Robinson. No. 1,416,304; May 16.
Windshield supporting bracket. O. F. Möller. No. 1,416,114; May 16.
Windshields, Wing for. W. B. Sewell. Nos. 1,416,422–3; May 16.
Wire-bound-box blank machines, Binding-wire-cutting mechanism for. J. Shellenberger. No. 1,416,419; May 16.
Wireless signals, Static reducer for. A. M. Curtis. No. 1,415,999; May 16.
Wire stretcher. P. Cullerton. No. 1,415,998; May 16.
Wire with silk, cotton, etc., Machine for covering. J. Narizzano. No. 1,416,497; May 16.
Wood, Seasoning. A. O. Crail. No. 1,416,269; May 16.
Work holder. P. M. Anderson. No. 1,415,855; May 16.

Wrapping machine. C. O. Brownell. No. 1,416,165; May 16.
Wrench: *See*—
Adjustable wrench.
Wrench. E. C. Coleman. No. 1,415,867; May 16.
Wrench. C. L. Devos. No. 1,416,271; May 16.
Wrench, Adjustable. L. E. Baltzley. No. 1,415,914; May 16.
Wringer: *See*—
Clothes wringer.

ALPHABETICAL LIST OF DESIGNS.

Clock case. L. E. Macomber. Nos. 60,960 1; May 16.
Cradle chair. W. F. Silliman. No. 60,966; May 16.
Doll. S. Kodama. No. 60,957; May 16.
Doll. H. F. Trowbridge. No. 60,970; May 16.
Electric heater. C. F. Smith and G. E. Curtiss. No. 60,968; May 16.
Finger ring. G. A. Alsopp. No. 60,949; May 16.
Garment, Child's. L. Kuh. No. 60,958; May 16.
Gas heater. H. R. Humphrey. No. 60,955; May 16.
Hammock. H. Mintz. No. 60,963; May 16.
Lamp. H. A. Best. No. 60,950; May 16.
Lighting fixture. R. C. Pfleager. No. 60,964; May 16.
Lighting-fixture arm. L. Levine. No. 60,959; May 16.
Phonograph cabinet. F. Cummings. No. 60,951; May 16.
Phonograph cabinet. W. B. Hollingshead. No. 60,953; May 16.
Rubber heel. F. Hornquist. No. 60,954; May 16.
Sewing cabinet. F. Schoeck. No. 60,965; May 16.
Smoker's stand. C. D. Slocum. No. 60,967; May 16.
Statuette. L. L. Goodenow. No. 60,952; May 16.
Tape, Sealing. A. M. Malone. No. 60,962; May 16.
Toy balloon. A. P. Witten. No. 60,971; May 16.
Toy, Wheeled. J. C. Juthe. No. 60,956; May 16.
Vehicle, Child's. C. A. Sundstrand. No. 60,969; May 16.

ALPHABETICAL LIST OF TRADE-MARKS REGISTERED.

Alloy steels. Carpenter Steel Company. No. 154,897; May 16.
Aprons. House Dress Apron Co. No. 155,156; May 16.
Aprons, Household and nursery. Rubberized Sheeting & Specialty Co. Inc. No. 155,777; May 16.
Automobile-radiator-solution testers. Beckley-Ralston Co. No. 154,878; May 16.
Automobile rim tools. R. D. Hughes. No. 154,975; May 16.
Baby exercisers. F. M. Haskins. No. 154,963; May 16.
Ball returns, Bowling-alley. Brunswick-Balke-Collender Company. No. 154,890; May 16.
Balls, Golf. Corona Rubber Manufacturing Co. No. 154,909; May 16.
Bandages and supporters, Abdominal. E. J. Fayart. No. 154,931; May 16.
Bank, Portable savings. J. H. Greer. No. 154,957; May 16.
Bedspreads. Marshall Field & Company. No. 155,005; May 16.
Belting, Fasteners, plates, etc., for machinery. Crescent Belt Fastener Company. No. 154,911; May 16.
Beverage, Cereal malt. J. A. Hieronimus & Sons. No. 154,970; May 16.
Beverage, Nonalcoholic. F. L. Hendrickson. No. 154,968; May 16.
Beverages and sirups therefor, Nonalcoholic. Savannah Beverage & Ice Co. No. 155,075; May 16.
Beverages, Carbonated. Eilert Beverage Company. No. 154,925; May 16.
Beverages, Malt extracts for use in making nonalcoholic. S. L. Goldman. No. 154,955; May 16.
Beverages, Nonalcoholic, maltless. Tenpenny Company. No. 155,098; May 16.
Beverages sold as soft drinks. Real Fruit Beverage Co. No. 155,061; May 16.
Bolts, Expansion. L. Montgomery. No. 154,995; May 16.
Books, Expense-account. H. B. Goodman. No. 154,956; May 16.
Bottle-capping machine. G. E. Whitney. No. 155,125; May 16.
Brace, Body and shoulder. M. Mason. No. 155,011; May 16.
Brassières. E. H. Horwood & Co. No. 155,155; May 16.
Brassières. Seamless Brassiere Co. No. 155,778; May 16.
Brooms. W. L. Martin Broom & Mop Co. Nos. 155,007–9; May 16.
Brushes, Painters'. Wadsworth, Howland & Co. No 155,109; May 16.
Brushes, Shaving. American Safety Razor Corporation. No. 154,863; May 16.
Brushes, Toilet. Kyoto Manufacturing & Trading Co. No. 154,990; May 16.
Candies. Pacific Coast Biscuit Company. No. 155,042; May 16.
Carbon steel, high-speed or alloyed tool steel. Dyktor Brothers, Inc. No. 154,922; May 16.
Cards, Playing. A. Dougherty. No. 155,148; May 16.
Cards, Playing. United States Playing Card Company. No. 155,183; May 16.
Cards, Record. Gaynor Manufacturing Company. No. 154,944; May 16.
Carpet sweepers, table forks, tool handles, etc. Strevell-Paterson Hardware Co. No. 155,094; May 16.
Cases, boxes, and containers for eyeglasses, opera glasses, etc. Aitchison & Company. No. 154,857; May 16.
Cash registers, and parts thereof. Remington Arms Company. Nos. 155,063–4; May 16.
Catamenial bandages. J. B. Marshall. No. 155,006; May 16.
Cements, Certain. Rubber and Cements, Incorporated. No. 155,071; May 16.
Chains, loops, rings, and hooks, etc., Certain. American Chain Company. No. 154,861; May 16.
Cigarette cases. Wightman & Hough Co. No. 155,126; May 16.
Cigarettes. M. Mavromatas. No. 155,014; May 16.
Cigarettes and cigarette tobacco. J. M. Berberian. No. 154,880; May 16.
Cigars. J. H. Chandler. No. 154,902; May 16.
Cigars. Rosenthal Bros. & Bendetson. No. 155,070; May 16.
Cigars, cigarettes, chewing tobacco, etc. Demmi Cigar Co. No. 154,916; May 16.
Cigars, cigarettes, tobacco. Samos Cigarette & Tobacco Co. No. 155,072; May 16.
Circulars and periodical pamphlets. Fort Wayne Engineering & Manufacturing Co. No. 154,938; May 16.
Cleaning and polishing solution for floors, furniture, etc. J. W. Geraty. No. 154,946; May 16.
Clothing. National Cloak & Suit Co. No. 155,023; May 16.
Clothing. Stein Bros. Mfg. Co. No. 155,091; May 16.
Clothing. Certain articles of. Brown Durrell Co. No. 154,888; May 16.
Clothing, Certain articles of. Caravel Company. No. 154,896; May 16.
Cocks and faucets. Central Brass Manufacturing Co. No. 155,144; May 16.
Colors and tints in dry powder form. P. W. Nelson, Inc. No. 155,025; May 16.
Coops, poultry boxes, egg cases, butter and packing boxes, Poultry. Webster Brothers Manufacturing Company. No. 155,115; May 16.
Copper, nickel, and zinc and alloys for same, Nonferrous ingots of. C. N. Choate. No. 154,905; May 16.
Cord and twine. Samson Cordage Works. No. 155,073; May 16.
Corsets and brassières. American Lady Corset Co. No. 154,862; May 16.
Cotton piece goods. Garner Print Works and Bleachery. Nos. 154,941–3; May 16.
Cotton, woolen, or silk piece goods. H. J. Cathcart. No. 155,143; May 16.
Cultivators, plows, harrows, etc., and hitches. Cleveland Tractor Company. No. 154,907; May 16.
Cutlery. Lessmann. Bros. No. 154,996; May 16.
Dental cement, alloy, temporary stopping. Alexander Cassriel Company. No. 154,899; May 16.
Dental files and saws. S. S. White Dental Manufacturing Company. No. 155,118; May 16.
Dies, Steel. A. Finkl & Sons Co. No. 154,933; May 16.
Drinks and sirups and extracts therefor, Maltless fountain. McCormick & Co. No. 155,001; May 16.
Drinks and sirups therefor, Soft carbonated. Beacon Chocolate Company. Nos. 154,876–7; May 16.
Duplicator rolls and lead pencils. Walsh Duplicator Corporation. No. 155,111; May 16.
Ear cone. George C. Klippert Chemical Co. No. 154,988; May 16.
Electric circuits, Automatic make-and-break mechanisms for. Baker R. & L. Company. No. 155,137; May 16.
Envelopes for mailing articles and for correspondence. Duplex Envelope Company. No. 155,149; May 16.
Erasers, Rubber. Joseph Dixon Crucible Company. No. 154,983; May 16.
Eyeglass mountings, Finger-piece. F. A. Hardy & Company. No. 154,961; May 16.
Fans, Centrifugal. B. F. Sturtevant Company. No. 155,096; May 16.
Feed and ensilage cutters and fodder shredders. Silver Manufacturing Company. No. 155,080; May 16.
Fertilizers. G. G. Drouin. No. 154,945; May 16.
Fertilizers, those containing phosphate. Anaconda Copper Mining Company. No. 154,867; May 16.
Fiber ropes and twines. Hooven & Allison Company. Nos. 154,972–4; May 16.
Filing cards. Oxford Filing Supply Co. No. 155,040; May 16.
Filing folders, data books, article sorting and distributing folders. Work-Organizer Specialties Company. No. 155,129; May 16.
Fillers, Scratch. A. Shales. No. 155,077; May 16.
Filter parts, Cleaning apparatus for. Midwest Steel & Supply Company. No. 155,019; May 16.
First-aid outfits. Hygienic Fibre Company. No. 154,977; May 16.
Fishing lines, Braided oil-silk. B. F. Gladding & Co. No. 154,953; May 16.
Fishing lines, Silk. B. F. Gladding & Co. No. 154,954; May 16.
Fishing reels. Enterprise Manufacturing Company. No. 154,927; May 16.
Flavoring for beverages. R. C. Wylie. No. 155,131; May 16.
Flower pots, Metal. Porciron Mfg. Co. No. 155,051; May 16.
Fluids, Material for separating impurities, etc., from. Celite Products Company. No. 154,900; May 16.
Forgings and castings, Drop. Twin City Forge and Foundry Company. No. 155,102; May 16.
Games. Saml. Gabriel Sons & Company. No. 154,940; May 16.
Games, Captive-ball device for playing and practice of. Craig Golfmeter Co. No. 154,910; May 16.
Gasoline. Hercules Petroleum Company. No. 154,969; May 16.
Gasoline. Southern Oil Corporation. No. 155,089; May 16.
Gasoline. Tulsa Oil Products Co. No. 155,099; May 16.
Gasoline and fuel oils. Crown Oil & Wax Co. of Delaware. No. 154,912; May 16.
Ginger ale. J. J. McLaughlin, Limited. No. 155,002; May 16.
Ginger ale. Old Scotch Co. No. 155,164; May 16.
Gloves, Leather-palm work. U. S. Glove Co. No. 155,182; May 16.
Glue. Sherwin-Williams Company. No. 155,078; May 16.
Gold alloys for dental purposes. J. M. Ney Company. Nos. 155,028–35; May 16.

Gold and silver leaf, Imitation of or substitutes for. J. L. N. Smythe Company. No. 155,087; May 16.
Golf balls and clubs. H. Nalty. No. 155,022; May 16.
Golf-club heads. Metal & Alloy Specialties Company. No. 155,016; May 16.
Grape, pineapple, and loganberry juices. California Packing Corporation. No. 154,893; May 16.
Greases and other lubricating oils and greases, Axle. Snow Flake Axle Grease Company. No. 155,088; May 16.
Grinding and polishing stones. Acme Abrasive Company. No. 155,134; May 16.
Hair nets. A. V. Blatt. No. 154,881; May 16.
Hair nets. Hazel Net Company. Nos. 154,965–6; May 16.
Hair nets. G. Klemperer. No. 155,158; May 16.
Hair nets. Pagoda Import Company. No. 155,167; May 16.
Hair nets. Richmond Sundry Company. No. 155,176; May 16.
Hair nets. Sitroux Importing Company. Nos. 155,082–5; May 16.
Handkerchiefs. Henry H. Leon Co. No. 154,994; May 16.
Handle extensions. Peterson and Goodman. No. 155,048; May 16.
Hats, Harvest. Superior Hat Company. No. 155,181; May 16.
Hosiery. Burson Knitting Company. No. 155,142; May 16.
Hosiery. Paramount Knitting Company. Nos. 155,168–73; May 16.
Interlining garments, Piece goods used for. J. A. Rainford. No. 155,057; May 16.
Laboratory apparatus. L. D. Rogers. No. 155,067; May 16.
Leather goods. Progressive Leather Goods Co. No. 155,055; May 16.
Levels, bevels, squares, and cutting gauges, marking gauges, and mortise gauges. Henry Disston & Sons, Incorporated. No. 154,918; May 16.
Lithopone. New Jersey Zinc Company. No. 155,026; May 16.
Locks. Aktiebolaget Abloy Osakeyhtio. Nos. 154,859–60; May 16.
Locks and latches. E. T. Fraim Lock Co. No. 154,939; May 16.
Locks and padlocks. C. Judycki. No. 154,984; May 16.
Locks and safes. Naamlooze Vennootschap Handel-Maatschappij Planeet. No. 155,021; May 16.
Locomotives, turntables, bucket excavators, etc. Koppel Industrial Car & Equipment Company. No. 154,989; May 16.
Lubricants. Keystone Lubricating Company. No. 154,986; May 16.
Lubricants. Keystone Lubricating Company. No. 154,987; May 16.
Magazine issued twice monthly. Street & Smith Corporation. No. 155,093; May 16.
Malt extract. A. Endres. No. 154,926; May 16.
Malt extract. Pacific Malt & Hops Co. No. 155,043; May 16.
Marking tools. Jas. H. Matthews & Co. No. 155,013; May 16.
Medicine used against cancer, etc., and as a blood purifier. W. Faupel. No. 154,930; May 16.
Metal plates and sheets, Ferrous. Follansbee Brothers Company. No. 154,936; May 16.
Metal-working machinery and production tools. Carroll Engineering Co. No. 154,898; May 16.
Milling cutters, reamers, hobs, etc. National Tool Company. No. 155,024; May 16.
Mills, Ball and pebble. Hardinge Company. No. 155,153; May 16.
Mucilage and library paste. G. H. Capen. No. 154,895; May 16.
Oil engines. Diamond Iron Works. No. 154,917; May 16.
Oil, Lubricating. Gilmore Petroleum Company. Nos. 154,951–2; May 16.
Oil, Lubricating. Oklahoma Producing and Refining Corporation of America. No. 155,039; May 16.
Oil, Lubricating. Power-Oil Co. Ltd. No. 155,053; May 16.
Oils and greases, gasoline, Lubricating. Red "C" Oil Manufacturing Co. No. 155,062; May 16.
Oils and greases, Lubricating. A. W. Harris Oil Company. No. 154,962; May 16.
Oils and greases, Lubricating. Mason City Oil & Grease Company. No. 155,010; May 16.
Oils and greases, Mineral. Tulsa Refined Oil Company. No. 155,100; May 16.
Oils, Liquid-fuel. Northwestern Oil Company. No. 155,036; May 16.
Oils, Lubricating. United Oil Company. No. 155,105; May 16.
Ointment, Skin-. Eyers Drugs & Chemical Co. No. 154,929; May 16.
Padlocks. Eagle Lock Co. No. 154,923; May 16.
Paint, Black ready-mixed. Dayton Color Works Company. No. 154,915; May 16.
Paint, waterproofing paint, etc., Ready-mixed roofing. C. A. Woolsey Paint & Color Company. No. 155,128; May 16.
Paints, paint enamels, varnishes. Ivoroid Mixed Paint Company. No. 154,980; May 16.
Paints, Ready-mixed. United States Gutta Percha Paint Company. No. 155,107; May 16.
Paper and mailing envelopes, Writing. Whiting Paper Company. No. 155,124; May 16.
Paper, cardboard, box board, and mailing envelopes. J. & J. Scott, Ltd. No. 155,076; May 16.
Paper, Newsprint. Brompton Pulp & Paper Co. No. 154,887; May 16.
Paper, paper napkins and towels, Toilet and wrapping. John Hoberg Co. No. 154,971; May 16.
Paper, Printing. S. D. Warren Company. No. 155,114; May 16.
Paper, Printing and writing. Parsons Paper Company. No. 155,045; May 16.
Paper, Toilet. J. F. Auer. No. 154,871; May 16.
Paper, Toilet. S. Walter, Inc. No. 155,112; May 16.
Paper, Toilet. White-Washburne Company. Nos. 155,119–22; May 16.
Paper, Wax. Newark Paraffine and Parchment Paper Co. No. 155,027; May 16.
Paper, Waxed. Dragon Paper Mfg. Co. No. 154,919; May 16.
Paper weights. S. C. Patchett. No. 155,046; May 16.
Paper, Wrapping. F. C. Strype. No. 155,095; May 16.
Paper, Writing. Berkowitz Envelope Company. No. 155,138; May 16.
Paper, Writing. E. E. Lloyd Paper Company. No. 154,999; May 16.
Papers and mailing envelopes, Writing. Whiting Paper Company. No. 155,123; May 16.
Papers, Certain. Brittains Limited. No. 154,885; May 16.
Papers, envelopes, etc. Powers Paper Company. No. 155,775; May 16.
Pastes, Boiler and furnace. Commercial Paste Company, The. No. 155,184; May 16.
Pencils, Lead. Mays Manufacturing Co. No. 155,015; May 16.
Pencils, Magazine. J. Swanberg. No. 155,097; May 16.
Pencils, Magazine. Waldref Manufacturing Co. No. 155,110; May 16.
Pens, Fountain. M. I. Ayer. No. 155,136; May 16.
Pens, Fountain. L. Badois. No. 154,873; May 16.
Pens, Fountain. Dunn-Pen Company. Nos. 154,920–1; May 16.
Pens, Fountain. Parker Pen Co. No. 155,044; May 16.
Pens, lead pencils, rubber erasers, Steel. E. Hassinger. No. 154,964; May 16.
Periodical, Monthly. A. W. Brayley. No. 154,883; May 16.
Periodicals. Atlas Publishing Company. No. 154,870; May 16.
Petroleum and products of petroleum for illuminating, etc. Standard Oil Company of New York. No. 155,090; May 16.
Phonograph or sound-reproducing instrument. Van Toy Co. No. 155,108; May 16.
Phonograph records. Funk & Wagnalls. No. 155,151; May 16.
Phonograph records. Rodeheaver Company. No. 155,066; May 16.
Phonograph sound-box attachments. R. Quinn. No. 155,056; May 16.
Phonographic sound records or plates. Polyphonwerke Aktiengesellschaft. No. 155,049; May 16.
Phonographs. Federal Phonograph Co. No. 154,932; May 16.
Phonographs, Accessories and supplies for. Polyphonwerke Aktiengesellschaft. No. 155,050; May 16.
Phonographs and parts therefor and phonograph records. Benoit & Mathieu. No. 155,012; May 16.
Phonographs, Sound reproducers for. Brunswick-Balke-Collender Company. No. 154,889; May 16.
Pianos and piano players. Premier Grand Piano Corporation. No. 155,054; May 16.
Pianos and player pianos. Lauter-Humana Company. No. 154,992; May 16.
Pianos, Electric, reproducing and player. Madison Piano Company. No. 155,160; May 16.
Pianos, etc., Wire for. American Steel & Wire Company of New Jersey. No. 154,864; May 16.
Pictures, Motion. Arrow Film Corporation. No. 154,868; May 16.
Pipe-bending tools. R. H. Henderson. No. 154,967; May 16.
Pipe fittings, paper hangers, valves, nuts. James D. Rawles Company. No. 155,060; May 16.
Planchette boards. W. J. Haines. No. 154,959; May 16.
Polish, Cedar-oil. G. H. Capen. No. 154,894; May 16.
Polish, Furniture. B. Benjamin. No. 154,879; May 16.
Polish, Liquid automobile. R. E. Briggs. No. 154,884; May 16.
Porcelain ware, Certain articles of laboratory. Coors Porcelain Company. No. 155,146; May 16.
Poultry, eggs, and butter, Dressed. T. Owens. No. 155,166; May 16.
Powder, dentifrices, beauty cream, perfumes, Hygienic. Central-Spécialités Societe Anonyme. No. 154,901; May 16.
Powder puffs. M. A. Butler. No. 154,892; May 16.
Publication, Monthly trade. Monroe Tire Corporation. No. 155,020; May 16.
Pumping and other machinery. Worthington Pump and Machinery Corporation. No. 155,130; May 16.
Pumps. St. Louis Pump & Equipment Company. No. 155,180; May 16.

Pumps and attachments for same, Visible measuring gasoline-dispensing. R. Cox. No. 155,147; May 16.
Razor blades for stropping, Device for holding. R. W. Rosendahl. No. 155,069; May 16.
Razors and safety-razor blades, Stropping apparatus for. Hugo Büchner, Maschinenfabrik und Apparatebau-Anstalt Gesellschaft mit beschrankter Haftung. No. 154,976; May 16.
Razors, Safety. Gillette Safety Razor Company. Nos. 154,947–50; May 16.
Receptacles, Certain. M. Clayes. No. 154,906; May 16.
Receptacles, Garbage and ash. Chicago Granitine Manufacturing Company. No. 154,904; May 16.
Refrigerators. J. Rose & Co. No. 155,068; May 16.
Revolvers. F. Biffar, Jr. Nos. 155,139–40; May 16.
Rope, Manila. Portland Cordage Co. No. 155,052; May 16.
Rope, Manila, sisal, wire, and marline-covered wire. Ajax Rope Company. No. 154,858; May 16.
Rugs, Cotton and woolen. Gem Hammock & Fly Net Company. No. 155,152; May 16.
Sanitary Napkins, aprons, belts, diapers, and surgeons' rubber gloves. Ace Specialties Corp. No. 154,854; May 16.
Saxophones. Buescher Band Instrument Co. No. 154,891; May 16.
Saxophones, clarinets, picolos, flutes, and horns. Martin Band Instrument Company. No. 155,161; May 16.
Scissors and shears. Acme Shear Company. No. 154,856; May 16.
Screens, Window and door. Acme Screen Company. No. 154,855; May 16.
Seal presses. M. H. Jackson. No. 154,982; May 16.
Sewing machines, their parts and attachments. Singer Manufacturing Company. No. 155,081; May 16.
Shapers and crank planers. Cincinnati Shaper Co. No. 155,145; May 16.
Sheeting. Lanett Cotton Mills. No. 154,991; May 16.
Shellac substitute. Mantrose Corporation. No. 155,004; May 16.
Shellac, Substitute for prepared. Lowe Brothers Company. No. 155,000; May 16.
Shirts, Men's dress. L. Miller. No. 155,162; May 16.
Shirts, Negligee. Henry Myer & Company. No. 155,163; May 16.
Shoes and slippers, Infants' and children's turn. Macungie Shoe Manufacturing Company. No. 155,159; May 16.
Shoes, Ladies. Smaltz-Goodwin Company. No. 155,086; May 16.
Shoes, Leather. Allen-Square Company. No. 155,135; May 16.
Silk and silk and cotton piece goods, and cotton goods in the piece. Oriental Silk Printing Company. No. 155,165; May 16.
Silk piece goods. Kahga Importing Company. No. 155,157; May 16.
Silk piece goods. H. R. Mallinson & Co. No. 155,003; May 16.
Sirup, Malt. H. D. Sterrick. No. 155,092; May 16.
Sirups for use in beverages, Maltless. Santerba Perfumery Manufacturer Inc. No. 155,074; May 16.
Skin lotions. C. W. Holmes. No. 155,079; May 16.
Soap. C. R. Meyer. No. 155,018; May 16.
Soap, Castile. D. A. Eberly. No. 154,924; May 16.
Soda fountains, Mixing apparatuses for. Metallograph Corporation. No. 155,017; May 16.
Sound-reproducing instruments, Needles or styli for. Permanent Manufacturing Co. No. 155,047; May 16.
Stains, Liquid. William Flood Company. No. 155,127; May 16.
Stationery. Hamilton Card & Paper House, Inc. No. 154,960; May 16.
Steel and iron in certain forms, certain steels, steel castings, forgings, and stampings. Arthur Balfour & Co. Limited. No. 154,874; May 16.
Steel clamps, hack-saw frames, scribers, screw drivers, etc. Union Tool Company. No. 155,104; May 16.
Steel plates. M. W. Kellogg Company. No. 154,985; May 16.
Steel, Tool and die. Firth-Sterling Steel Company. No. 154,934; May 16.
Sweaters, sweater coats, hosiery, gloves. Baynton Mills. No. 154,875; May 16.
Tablets, Laundry. S. I. Parker. No. 155,174; May 16.
Tacks, Upholsterers'. G. G. Roberts Corporation. No. 155,065; May 16.
Tape, Sealing. Liberty Paper Co. No. 154,997; May 16.
Tea. Yangtze Corporation. No. 155,132; May 16.
Tennis rackets. Harry C. Lee & Company. No. 154,993; May 16.
Textile fabric in the piece, Shoe-lining. W. H. Holbrook Company. No. 155,154; May 16.
Tires, etc., Pressure gauges for pneumatic. Greist Manufacturing Company. No. 154,958; May 16.
Tires, Puncture-sealing composition and preservative for pneumatic. Jackson Laboratories. No. 154,981; May 16.
Tobacco and cigarettes. American Tobacco Company. No. 154,866; May 16.
Tobacco and cigarettes. Liggett & Myers Tobacco Company. No. 154,998; May 16.
Tobacco, cigarettes, cigars, and snuff, Smoking and chewing. "Turmac" Turkish-Macedonian Tobacco Company. No. 155,101; May 16.
Tobacco, Plug. Cumberland Tobacco Works, Inc. No. 154,913; May 16.
Tobacco products. Rauch Cigar Company. No. 155,059; May 16.
Tobacco, Smoking. Zorro Tobacco Co. No. 155,133; May 16.
Tooth paste. Atkins-Blakeney Chemical Company. No. 154,869; May 16.
Towel and broom holders. C. E. Erickson Co. No. 154,928; May 16.
Toy balloons. Oak Rubber Company. Nos. 155,037–8; May 16.
Toys. Oxford-Print. No. 155,041; May 16.
Transfer sheets for use in the art of printing. F. W. Hyman. No. 154,978; May 16.
Trusses, Hernial. Chesterman-Leeland Co. No. 154,903; May 16.
Tubing, Brass and copper seamless. U. S. Copper Products Corporation. No. 154,908; May 16.
Underwear, children's dresses, and women's shirtwaists or blouses, Women's and children's. Birkenfeld, Strauss & Co. No. 155,141; May 16.
Valves and unions, valve boxes, fire hydrants, etc. Darling Valve & Manufacturing Company. No. 154,914; May 16.
Vaporizers for supplying water vapor to the cylinders of internal-combustion engines. Automatic Steam Carburetor Company. No. 154,872; May 16.
Vehicles, Transmission, differentials, clutches, control levers, and gears for automotive. Warner Gear Company. No. 155,113; May 16.
Violin strings. C. Fischer. No. 154,935; May 16.
Wagons, Play. H. C. White Company. No. 155,116; May 16.
Wardrobes and office furniture. Shaw-Walker Co., The. No. 155,179; May 16.
Warming apparatus, Electrical. Twinplex Sales Co. No. 155,103; May 16.
Water, Mineral. Rathjen-Eggers Company. No. 155,058; May 16.
Water purification apparatus. International Filter Co. No. 154,979; May 16.
Water-softening apparatus. Borromite Company of America. No. 154,882; May 16.
Welting. Brockton Rand Company. No. 154,886; May 16.
Wire rope and cables and aeroplane cables. American Steel & Wire Company of New Jersey. No. 154,865; May 16.
Woolen piece goods. Forstmann & Huffmann Company. No. 154,937; May 16.
Woolen piece goods. Forstmann & Huffmann Company. No. 155,150; May 16.
Wrappers, Fruit and vegetable. United Paper Company. No. 155,106; May 16.
Wringers, Mop. White Mop Wringer Co. No. 155,117; May 16.

ALPHABETICAL LIST OF LABELS.

"Blue Bonnet Brand East Texas Tomatoes." (For Tomatoes.) Texas Tomato Growers Exchange. No. 24,391; May 16.

"Doodeward's Lightning Wonder Gloss." (For Automobiles, Pianos, Furniture, Woodwork, and All Varnished, Painted, and Enameled Surfaces.) J. Doodeward. No. 24,375; May 16.

"Eskimo Pie." (For Confections.) Russell Stover Company. No. 24,380; May 16.

"Routledge." (For Bird Remedies.) Routledge Bird, Pet and Animal Co. No. 24,378; May 16.

"Routledge." (For Birdseed.) Routledge Bird, Pet and Animal Co. No. 24,379; May 16.

"S and W." (For Canned Peaches.) Sussman, Wormser & Co. No. 24,382; May 16.

"S and W." (For Canned Corn.) Sussman, Wormser & Co. No. 24,383; May 16.

"S and W." (For Canned Peas.) Sussman, Wormser & Co. No. 24,384; May 16.

"S and W." (For Canned Asparagus.) Sussman, Wormser & Co. No. 24,385; May 16.

"S and W." (For Canned Apricots.) Sussman, Wormser & Co. No. 24,386; May 16.

"S and W." (For Canned Tomatoes.) Sussman, Wormser & Co. No. 24,387; May 16.

"S and W." (For Fruit Salad.) Sussman, Wormser & Co. No. 24,388; May 16.

"S and W." (For Canned Pineapple.) Sussman, Wormser & Co. No. 24,389; May 16.

"S and W." (For Canned Cherries.) Sussman, Wormser & Co. No. 24,390; May 16.

"The Good Kind." (For Canned Corn.) Steele Wedeles Company. No. 24,381; May 16.

"Whiting's Liniment." (For Bottles Containing Liniment.) T. F. Whiting and J. A. Martin. No. 24,392; May 16.

"Wonderful Improvement for Service and Cleaning." (For Window Shades, Being Applied to the Shade Rollers Thereof.) Paris Manufacturing Company. No. 24,377; May 16.

"Yeast O Beauty Soap." (For a Toilet Soap.) W. T. Green. No. 24,376; May 16.

ALPHABETICAL LIST OF PRINTS.

"Gladys." (For Advertising Purposes for Glover's Mange Medicine.) H. Clay Glover Co. No. 6,126; May 16.

"How To Use This Sample of Lotus Hair Color Restorer." (For Advertising Purposes for the Lotus Preparation for the Hair.) Lotus Co. No. 6,128; May 16.

"Shaves by Mail?" (For Advertising Purposes for Razor Blades.) Greist M'f'g Co. No. 6,127; May 16.

"This is the Vehicle that has Standardized the Taxicab Industry in America." (For Advertising Purposes for Taxicabs.) Yellow Cab Manufacturing Company. No. 6,130; May 16.

"Yellow Cab Manufacturing Co." (For Advertising Purposes for Taxicabs.) Yellow Cab Manufacturing Co. No. 6,129; May 16.

ALPHABETICAL LIST OF TRADE-MARK TITLES.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Apple cider, grape juice, and fruit sirups. California Fruit Beverage Co. No. 161,527; May 16.

Aprons, dresses, and nightgowns and children's playsuits, Women's and children's. American Garment Co. No. 152,298; May 16.

Astringent, antiseptic, and deodorant mouth wash, Active. M. Herbst. No. 156,691; May 16.

Bathing suits. Myers Manufacturing Co. No. 156,170; May 16.

Bathroom shelving, cup racks, soap racks, etc. Superior Brass N. C. No. 144,788; May 16.

Bearings, Ball, roller, and thrust. Societe de Mecanique de Gennevilliers. No. 156,110; May 16.

Beverage and extract for making same. Star Extract Works. No. 161,456; May 16.

Beverage and sirup for making same, Fruit. American Bottling & Soda Water Co. No. 160,379; May 16.

Beverage and sirups for making same, Fruit. Hamburger Co. No. 161,553; May 16.

Beverage, Nonalcoholic malt cereal. J. W. Sappington. No. 140,211; May 16.

Beverage, Noncereal, nonalcoholic, maltless. E. & H. Silverman. No. 159,621; May 16.

Beverages and sirups for making same. Cherry Pride Company. No. 161,354; May 16.

Beverages and sirups for making same. F. Greenwood, Inc. No. 161,358; May 16.

Beverages and sirups for making same, Fruit. California Products & Extract Co. No. 160,393; May 16.

Beverages and sirups for making same, Nonalcoholic, noncereal, maltless. Cherry Blosson Mfg. Co. No. 159,923; May 16.

Beverages and sirups for making same, Nonalcoholic, noncereal, maltless. Cherry Blossom Mfg. Co. No. 159,954; May 16.

Beverages, Malt and hop extracts for. Gottfried Krueger Brewing Company. No. 157,618; May 16.

Beverages sold as soft drinks. S. & J. Angert Bros. No. 161,613; May 16.

Blankets, comfortables, traveling rugs and baby bags, etc. Beacon Manufacturing Company. No. 141,752; May 16.

Bleaching materials. O. Osten. No. 157,440; May 16.

Booklets and small text cards. Rhodes-Marden Corporation. No. 155,119; May 16.

Boots and shoes. A. E. Little Co. No. 157,154; May 16.

Boots and shoes. Wilson Process, Inc. No. 156,123; May 16.

Boots, shoes, and slippers. Thomas G. Plant Company. No. 157,730; May 16.

Boots and shoes, Leather, rubber, fabric, etc. P. A. Savi. No. 158,196; May 16.

Bottle screws, Scent-. Mappin & Webb Limited. Nos. 159,471–2; May 16.

Bracelets, bar pins, brooches, neck chains, watch chains, etc. Joseph E. Miller, Inc. No. 152,628; May 16.

Brick. Twin City Brick Company. No. 139,685; May 16.

Brick, cement, and tile, muffles, etc., Refractory. Carborundum Company. No. 160,527; May 16.

Brooms, dusting brushes, and wool dusters, Dusting. Wooleather Corp. No. 155,037; May 16.

Buckles, Suspender. Alma Manufacturing Co. of Baltimore City. No. 157,544; May 16.

Burial garments. Theo. Tiedemann & Sons, Inc. No. 151,730; May 16.

Burners, Mantles for incandescent gaseous-fuel. Zales Bros. No. 153,424; May 16.

Caps, Boys' and men's. Royal Hat Co. No. 152,383; May 16.

Caps, Silk, felt, cloth, and fur. Expert Cap Mfg. Co. No. 142,137; May 16.

Car for children, Coaster. Bryan & Sandbach. No. 155,386; May 16.

Cement, Bituminous. G. S. Bowdish. No. 159,241; May 16.

Chains, Antiskid. Bear Manufacturing Co. No. 156,476; May 16.

Champagnes and wines. Gold Seal Products Company. No. 149,452; May 16.

Cigars. John C. Herman & Co. No. 158,714; May 16.

Cleaners, Chimney. T. G. Kohl Company. No. 156,746; May 16.

Clocks and watches. Keith-Landis Corporation. No. 157,399; May 16.

Closet seals and covers, Water-. J. L. Mott Company. No. 159,513; May 16.

Clothing, Men's and youths'. Golitsky, Posner & Hock. No. 153,807; May 16.

Cloths and stuffs of wool, worsted, or hair. Martin Sons and Company. No. 158,832; May 16.

Coal. Mitchell & Dillon Coal Company. No. 156,796; May 16.

Coats, vests, pants, and overcoats. J. Blach & Sons. Nos. 152,737–8; May 16.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Collars, cuffs, cravats, knitted and textile underwear for men and women, outer shirts for men. J. Hayem and Cie. No. 152,373; May 16.
Compounds for the treatment of barbers' itch, poison ivy, blood poison, etc. G. W. Terry. No. 154,890; May 16.
Concrete, Metal bars for reenforcing. Pollak Steel Company. No. 159,719; May 16.
Cotton fabrics in the piece, Woven. G. A. Stafford. No. 124,423; May 16.
Cotton piece goods. Pacific Mills. No. 158,724; May 16.
Cotton piece goods. Pacific Mills. No. 158,726; May 16.
Cotton piece goods. Tilton & Keeler, Inc. No. 158,268; May 16.
Cotton waste. Estate of Robert Bishop. No. 152,053; May 16.
Cough drops and cough candy. H. Pettersen. No. 156,597; May 16.
Coats, jackets, vests, waistcoats, trousers, etc. David S. Goldstein & Co. No. 155,684; May 16.
Cravats, Men's and boys'. Hut Neckwear Company. No. 153,285; May 16.
Creams, talcum powders, nail polishes, etc., Cold and vanishing. J. L. Blades. No. 157,875; May 16.
Draperies and upholsteries. Lesher, Whitman & Co. No. 136,161; May 16.
Dresses, coats, cloaks, suits, and evening wraps for women. Copelof, Stillman & Co. No. 156,212; May 16.
Dresses, Women's and children's. Carlisle Garment Co. No. 151,754; May 16.
Dressings and dry cleaners used on fabrics, leathers, etc. Venus Arch-Support Company. No. 153,059; May 16.
Drying machines, also known as hydro-extractors, Centrifugal. Tolhurst Machine Works. No. 154,289; May 16.
Electrically-operated traffic signals. D-Rex-U Safety Signal Company. No. 155,669; May 16.
Envelopes. United States Envelope Company. No. 157,861; May 16.
Fire cement. C. H. Sankey. No. 161,706; May 16.
Fire extinguishers, Portable. Boyce & Veeder Company. No. 157,252; May 16.
Floors, Hardwood. M. Day. No. 158,918; May 16.
Fly papers and flycatchers. Kay Brothers Limited. No. 156,640; May 16.
Frocks and rompers for outer wear, Children's. D. M. Robles. No. 153,691; May 16.
Fungicides for plants. Dow Chemical Company. No. 153,449; May 16.
Furniture, Household, office, and porch. Loux Sons. No. 156,837, May 16.
Game boards, game indicator, counter, etc., and games played with counter, indicator, or game piece. E. Bruder. No. 156,563; May 16.
Garters. National Garter Company. No. 153,363; May 16.
Garters. Star Suspender Co. No. 156,303; May 16.
Ginger ale. Abner-Drury Company. No. 161,713; May 16.
Ginger ale. J. Z. Schonhoff. No. 160,306; May 16.
Glass and glass having wire reenforcements, Plate and rolled. Joseph Elias & Co. No. 152,838; May 16.
Gloves, fabric gloves, and mittens, Leather. Ely & Walker Dry Goods Company. Nos. 156,154–5; May 16.
Hammers, hatchets, axes, adzes, and sledges, Handled. Fayette R. Plumb, Incorporated. No. 150,822; May 16.
Hair, Cream for use on the human. A. A. Denney. No. 157,830; May 16.
Hair grower and shampoo. E. J. Bowen. No. 155,477; May 16.
Hair lotion. C. F. Root. No. 155,831; May 16.
Hair nets. N. B. Cohen. Nos. 159,343–4; May 16.
Hair nets. N. B. Cohen. No. 159,346; May 16.
Hair tonic, toilet water perfume, bath powder, etc. Beautyaid Company. No. 101,982; May 16.
Hats and caps. Bell Cap Company. No. 151,707; May 16.
Hats and furs, Ladies'. F. Rose. No. 154,324; May 16.
Hinges, particularly windshield hinges. City Brass Works Co. No. 160,284; May 16.
Hosiery. Freedman & Co. No. 155,675; May 16.
Hosiery. Glotex Hosiery Co. No. 155,747; May 16
Hosiery. Rice-Stix Dry Goods Company. No. 153,568; May 16.
Hosiery. Van Raalte Company. No. 156,037; May 16.
Hosiery. H. H. Wood & Company. No. 155,720; May 16.
Houses, Portable. United States Tent & Awning Company. No. 160,983; May 16.
Ignition accessories. J. Sharp. No. 146,740; May 16.
Insulating composition materials. American Insulator Company. No. 137,557; May 16.
Iron and steel manufacture, Articles of. Sandvikens Jernverks Aktiebolag. Nos. 137,967–8; May 16.
Iron and steel sheets, plates, and bars. Tennessee Coal, Iron & Railroad Company. No. 114,932; May 16.
Jacks, Hydraulic. C. W. Reynolds. No. 155,573; May 16.
Knit underwear, Children's. Perry Knitting Company. No. 151,886; May 16.
Knitted fabrics in the piece. Wiley-Bickford-Sweet Co. No. 150,579; May 16.
Knitted outer wear, sweaters, coats, capes, hockey caps, etc. Elbro Knitting Mills. No. 152,793; May 16.
Knitted sweaters. Arr Tee Knitting Mills. No. 156,130; May 16.
Liniment. A. J. Freeman. No. 155,679; May 16.
Liniment for rheumatism or sore joints, corns, toothache, etc. I. B. Jefferson. No. 155,263; May 16.
Lumber. Red River Lumber Company. No. 145,360; May 16.
Lye. P. C. Tomson & Co. No. 156,554; May 16.
Machinery. Treadwell Engineering Company. No. 154,391; May 16.
Machines and parts thereof and tools used in the manufacture of boots and shoes. United Shoe Machinery Corporation. No. 156,870; May 16.
Malt extract. M. C. Rosenfeld Company. No. 147,892; May 16.
Malt extracts. A Wielich. No. 140,971; May 16.
Meats and lard, Smoked. Memphis Packing Corporation. No. 144,931; May 16.
Medicinal and pharmaceutical preparation for indigestion. J. R. Carr. No. 155,955; May 16.
Medicine for general tonic purposes, especially rheumatism. J. D'Anna. No. 155,161; May 16.
Medicine for the treatment of hay fever and colds. W. W. Baird. No. 154,785; May 16.
Medicines, Proprietary. F. J. Kozlowski. No. 154,410; May 16.
Milling cutters, reamers, counterbores, etc. National Tool Company. No. 157,439; May 16.
Narrow fabrics, Woven and braided. Wm. B. Bliss, Jr., & Co. No. 157,353; May 16.
Oil, Olive. M. Heller. No. 155,617; May 16.
Oils, wool, fulling, and scouring. Masury-Young Company. No. 150,246; May 16.
Overalls, shirts, underwear, hosiery, belts, etc. F. Brody & Sons Co. No. 151,138; May 16.
Pamphlets, maps, and guidebooks, Travel. O. F. James. No. 155,970; May 16.
Paper, Bond. Louisville Paper Co. No. 160,766; May 16.
Paper, Carbon. Kee Lox Manufacturing Co. No. 153,294; May 16.
Paper, Gummed. Samuel Jones & Company. No. 153,939; May 16.
Paper, Wrapping. Waxtwell Paper Company. No. 159,640; May 16.
Paper, Writing. Import Paper Company. Nos. 160,352–3; May 16.
Perfume extracts, and toilet waters. E. L. Mittelstaedt. No. 156,999; May 16.
Periodical, Weekly. Interpreter Publishing Corporation. No. 162,298; May 16.
Pharmaceutical preparations for stimulating liver-cell action. J. F. Murray. No. 151,055; May 16.
Photographic chemicals. Johnson & Sons. No. 157,765; May 16.
Pile fabrics in the piece. Salt's Textile Manufacturing Company. No. 159,114; May 16.
Piston pins. L. Bissell. No. 155,427; May 16.
Pistons. Kant-Skore Piston Company. No. 152,207; May 16.
Plaster for walls, Patching. Rutland Fire Clay Co. No. 154,995; May 16.
Powders, nitrated (gun) cotton, dynamite detonators, etc., Explosive. Poudreries Reunies de Belgique Societe Anonyme. No. 1,484,453; May 16.
Publications, Periodical. N. Divir. No. 157,218; May 16.
Ranges, heaters, furnaces, etc. Cleveland Co-Operative Stove Co. No. 144,179; May 16.
Rompers, jumpers, overalls, and smocks, Children's. Wornova Mfg. Co. No. 150,791; May 16.
Roofing and sheathing and building paper, Felt. Barret Company. No. 160,991; May 16.
Roofing materials. G. H. Voter, Inc. No. 156,556; May 16.
Rouge, cold cream, lip stick, toilet water, etc. Lournay, Inc. Nos. 156,645–9; May 16.
Rubber heels. L. Q. White Shoe Co. No. 157,643; May 16.
Salt. International Salt Co. of New York. No. 156,449; May 16.
Sheetings. Pelzer Manufacturing Company. No. 158,799; May 16.
Shingles. H. H. Honigbaum. No. 161,047; May 16.
Shingles, Red-cedar. Grays Harbor Shingle Co. No. 161,127; May 16.
Shirts, Dress. Daniel T. Patton and Company. No. 152,649; May 16.
Shirts for women, Sport. Max Held, Inc. No. 153,601; May 16.
Shirts, Men's dress. G. A. Ripley. No. 156,199; May 16.
Shirts, Work. Daniel T. Patton and Company. No. 152,650; May 16.
Shirt waists, suits, blouses, skirts, dresses, etc., Ladies' and misses' silk. J. A. Migel, Inc. Nos. 153,678–80; May 16.
Shoes and boots, Leather. B. Ross. No. 155,366; May 16.
Shoes, Leather. Martin and Martin. No. 158,089; May 16.
Shoes, Leather, rubber, fabric, etc. L. A. Leopold. No. 157,840; May 16.
Silk piece goods. Empire Silk Company. No. 158,569; May 16.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Silk ribbons and silk and cotton ribbons. Goldy Brothers. No. 158,708; May 16.
Skirts, Ladies' and misses' outer. J. Bonwit Skirt Co. No. 151,075; May 16.
Skylights, gutters, and fire doors. Atlanta Sheet Metal Works. No. 148,189; May 16.
Slippers and shoes and boudoir slippers, Bathing. General Footwear Co. No. 154,185; May 16.
Soap paste. Cedal Sawdust Cleanser Company. No. 126,182; May 16.
Soaps and soap powders. Cafico Chemical Company, Inc. No. 158,856; May 16.
Speed transmissions and parts thereof, Change-. Pierce-Arrow Motor Car Company. No. 138,185; May 16.
Speedometers. H. Hammarlund. No. 138,288; May 16.
Spraying systems and parts thereof, Water and other liquid. Spray Engineering Company. No. 154,421; May 16.
Steel balls. T. R. Bergman. No. 157,129; May 16.
Steel flooring, ventilating gratings, grids, and grilles. Kerlow Steel Flooring Company. No. 161,053; May 16.
Steel in blocks, bars, and forgings. Poldina Hut, továrna na kelímkovou ocel Crucible Steel Works. No. 150,329; May 16.
Step plates. Alloy Foundry and Machine Corporation. No. 156,954; May 16.
Stone and composition for making same, Artificial. L. D. Harter. No. 155,497; May 16.
Strawboard, box board, etc. C. L. La Boiteaux Company. No. 143,545; May 16.
Suits and overcoats, Men's and boys'. Michaels Stern & Co. Nos. 156,307–8; May 16.
Sulphur and sulphur inoculated with bacteria. Texas Gulf Sulphur Company. No. 157,117; May 16.
Sweaters. Pennsylvania Knitting Mills. No. 151,924; May 16.
Talking machines and parts. Perfek'tone Corporation. No. 121,316; May 16.
Talking machines, talking-machine parts, records, and needles. H. S. Berliner. Nos. 158,032–3; May 16.
Textile piece goods. F. Gouléd. No. 150,234; May 16.
Tire rubber patches, Inner. L. F. Lee. No. 159,759; May 16.
Tires, pneumatic rubber. Simplex Tire & Rubber Company. No. 155,368; May 16.
Tires, Vehicle. George K. Culp, Inc. No. 157,514; May 16.
Toy bicycle. Smith Manufacturing Co. No. 144,751; May 16.
Traps, Insect. Bjorge Bros. No. 144,841; May 16.
Type cleanser. Anthony Nutype Company. No. 153,835; May 16.
Underwear, Silk, satin, crêpe de chine, and textile-fabric. Joan Underwear Corporation. No. 152,710; May 16.
Vehicles, Springs for automotive. E. A. Lewenthal. No. 147,114; May 16.
Veils, hair nets, silk, cotton, and woolen piece goods, and lace curtains. V. Vivaudou, Inc. No. 158,957; May 16.
Vermifuge. N. and H. Company. No. 155,825; May 16.
Wall board, blinds, doors, windows, frames for doors and windows, etc. North American Wood Products Corporation. No. 141,797; May 16.
Water heater and open-fire grate, Combined coal hot-. Central Radiator Company. No. 153,540; May 16.
Woolen piece goods. Forstmann & Huffmann Company. Nos. 159,252–6; May 16.
Woolen, worsted, linen, velvet, haircloth, venetian, canvas, and cotton piece goods. Associated Commission Co. No. 143,526; May 16.
Wool, wool and cotton, and wool and silk mixture fabrics. Shlivek Brothers Fabrics Corporation. No. 159,289; May 16.
Wool, wool and cotton, and wool and silk mixture fabrics. Shlivek Brothers Fabrics Corporation. No. 159,291; May 16.
Woven, knitted, netted, textile, and pile fabrics in the piece. Cheney Brothers. No. 159,011; May 16.
Wrist pins. E. N. Moor, Jr. No. 156,288; May 16.

CLASSIFICATION OF PATENTS

ISSUED MAY 16, 1922.

NOTE.—First number=class, second number=subclass, third number=patent number.

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19: 1,415,983
29: 1,416,195
1,416,214
1,416,327
38: 1,415,860
1,415,873
63: 1,416,584
64: 1,415,989
206— 44: 1,416,420
1,416,465
1,416,598
208— 93: 1,416,315

210— 54: 1,416,538
74: 1,415,939
1,416,125
211— 8: 1,416,159
1,416,219
16: 1,416,030
1,416,409
21: 1,416,566
29: 1,416,293
212— 136: 1,415,892
213— 13: 1,416,368
42: 1,416,377
64: 1,416,113
67: 1,416,020
214— 17: 1,416,416
26: 1,416,034
38: 1,416,515
46: 1,416,190
72: 1,416,268
102: 1,416,050
125: 1,416,021
132: 1,416,118
215— 1: 1,416,347
38: 1,416,565
47: 1,416,227
50: 1,415,908
54: 1,416,278
55: 1,416,616
217— 8: 1,416,604
22: 1,416,542
57: 1,416,019
218— 14.1: 1,415,924
219— 4: 1,416,360
5: 1,416,359
12: 1,416,183
13: 1,415,993
15: 1,416,007
1,416,449
1,416,450
19: 1,416,272
20: 1,416,009
1,416,026
1,416,099
1,416,482
25: 1,416,544
35: 1,416,527
36: 1,416,263
38: 1,416,025
1,416,598
1,416,151
39: 1,416,225

219— 39: 1,416,320
1,416,601
46: 1,416,481
48: 1,416,047
55: 1,416,446
63: 1,416,572
67: 1,416,459
76: 1,416,436
220— 6: 1,416,150
36: 1,416,260
43: 1,415,986
1,416,451
51: 1,416,577
221— 102: 1,416,043
112: 1,416,037
127: 1,415,937
222— 3: 1,416,657
7: 1,415,970
1,415,990
223— 18: 1,416,405
224— 5: 1,416,153
23: 1,416,184
28: 1,416,654
29: 1,415,870
225— 26: 1,416,307
226— 18: 1,416,160
30: 1,416,101
76: 1,416,345
94: 1,416,126
1,416,156
228— 2: 1,416,058
229— 17: 1,416,448
44: 1,415,988
230— 24: 1,416,092
27: 1,416,445
232— 41: 1,415,953
233— 21: 1,415,881
235— 59: 1,416,428
60: 1,416,363
1,416,364
1,416,464
1,416,520
61: 1,416,023
1,416,519
86: 1,416,141
87: 1,416,194
123: 1,416,015
236— 28: 1,415,940
36: 1,415,872
238— 231: 1,416,144

238— 259: 1,416,152
315: 1,416,576
324: 1,416,474
240— 1: 1,415,984
4: 1,416,664
7: 1,416,119
1,416,376
1,416,467
41: 1,416,235
1,416,375
1,416,434
44: 1,416,096
1,416,394
45.6: 1,416,245
62: 1,415,982
1,416,014
73: 1,416,124
106: 1,416,109
241— 4: 1,416,650
6: 1,416,609
29: 1,416,335
242— 58: 1,416,000
244— 3: 1,416,580
1,416,581
31: 1,416,167
246— 174: 1,415,933
182: 1,416,622
187: 1,416,470
200: 1,416,108
223: 1,415,886
286: 1,416,397
287: 1,416,399
458: 1,416,458
248— 20: 1,416,522
30: 1,416,148
249— 6: 1,416,477
28: 1,416,312
250— 8: 1,416,061
20: 1,415,992
27: 1,416,623
31: 1,415,999
251— 18: 1,416,431
41: 1,416,391
46: 1,416,530
1,416,591
91: 1,416,173
119: 1,416,637
155: 1,416,175
252— 1,415,899
253— 52: 1,415,981

254— 1: 1,415,857
10: 1,415,926
26: 1,415,956
72: 1,415,998
103: 1,416,633
255— 69: 1,416,647
257— 129: 1,416,337
1,416,570
259— 108: 1,416,332
132: 1,416,597
134: 1,416,100
260— 7: 1,416,062
42: 1,416,205
1,416,206
72: 1,416,621
141: 1,416,606
263— 6: 1,416,006
9: 1,416,305
19: 1,416,198
33: 1,416,406
46: 1,416,438
1,416,439
264— 19: 1,416,082
1,416,083
1,416,084
265— 62: 1,415,915
266— 28: 1,415,910
267— 17: 1,416,537
60: 1,416,469
65: 1,416,235
69: 1,416,486
268— 9: 1,416,118
270— 93: 1,416,660
271— 42: 1,416,404
274— 35: 1,416,582
38: 1,416,216
39: 1,416,080
280— 10: 1,416,454
23: 1,415,877
33.1: 1,416,217
33.2: 1,416,171
33.5: 1,416,613
56: 1,416,427
112: 1,416,127
281— 1: 1,416,437
14: 1,416,129
282— 16: 1,416,130
283— 2: 1,415,883
57: 1,415,904
1,416,239

286— 1: 1,416,232
108: 1,416,386
287— 23: 1,416,435
290— 10: 1,416,273
38: 1,416,326
292— 63: 1,416,453
76: 1,416,495
150: 1,416,370
173: 1,415,871
207: 1,416,035
278: 1,416,276
293— 55: 1,416,351
1,416,358
1,416,426
1,416,468
58: 1,416,610
294— 90: 1,416,620
100: 1,415,995
296— 44: 1,416,651
45: 1,415,928
63: 1,416,551
84: 1,416,422
1,416,423
91: 1,416,112
92: 1,416,114
95: 1,416,304
117: 1,416,659
139: 1,416,628
298— 19: 1,416,161
299— 41: 1,416,065
59: 1,416,401
68: 1,416,222
77: 1,416,627
301— 9: R. 15,357
17: 1,416,505
20: 1,416,648
32: 1,416,440
45: 1,416,257
63: R. 15,358
1,416,149
1,416,330
1,416,524
302— 17: 1,416,229
58: 1,416,913
304— 15: 1,416,561
18: 1,416,296
306— 4: 1,416,081
17: 1,416,626
30: 1,416,533

ALPHABETICAL LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 23D DAY OF MAY, 1922.

NOTE.—Arranged in accordance with the first significant character or word of the name. (In accordance with city and telephone directory practice.)

Abbott, Tom, Pontyclun, Llantrisant, Wales. Means for mechanically oiling the wheels of tramway and like vehicles. No. 1,416,668; May 23.

Abraham, John, Vancouver, British Columbia, Canada. Towing hook. No. 1,417,222; May 23.

Adams, John Q., assignor of one-half to W. J. McMurry, Hickman, Ky. Decoy. No. 1,417,441; May 23.

Albertus, Floyd A., assignor of one-fourth to C. S. Flint, Milwaukee, Wis. Soldering composition for aluminum. No. 1,416,924; May 23.

Albright, Jacob J., Columbus, Ga. Register. No. 1,417,011; May 23.

Anderson, Wilfred. (See Butler, H. and H., Hayhurst, and Alderson.)

Alexander, Lake C. (See Avril, Joseph, assignor.)

Allan, George W. (See Brittain, Isaac M., assignor.)

Allen, Jackson M., Grove City, Pa. Valve. No. 1,417,291; May 23.

Allen, Paul W. (See Lenders, A. W. H., and Allen.)

Allen, William E. (See Jones, Everett R., assignor.)

Allis, Hannora E. G., administratrix. (See Allis, Thomas V.)

Allis, Thomas V., deceased, by H. E. G. Allis, administratrix, Pittsburgh, Pa. Method of and furnace for heat-treating sheet and tin-plate bars. No. 1,417,012; May 23.

Allman, Charles W., Ottumwa, Iowa. Flagstaff. No. 1,416,669; May 23.

Alsatian Machine Works, Limited. (See Fossel, Joseph, assignor.)

American Brake Company, The. (See Redford, John E., assignor.)

American Can Company. (See Butler, William F., assignor.)

American Can Company. (See Grass, Alfred, assignor.)

American Can Company. (See Taylor, William E., assignor.)

American Cement Plaster Company. (See Tyler, Alva W., assignor.)

American Motor Body Company. (See Lambert, A. L., and Bell, assignors.)

American Optical Company. (See Dey, Gilbert S., assignor.)

American Smelting & Refining Company. (See Howard, Guy C., assignor.)

American Telephone and Telegraph Company. (See Kuhn, George W., assignor.)

American Telephone and Telegraph Company. (See Vernam, Gilbert S., assignor.)

Andersen, Offer L. K., Struer, Denmark. Boiler-fur preventative. No. 1,416,925; May 23.

Anderson, Carl A., Minneapolis, Minn. Rear package carrier for bicycles and the like. No. 1,417,223; May 23.

Anderson, John F., Oakland, Calif. Exhaust box. No. 1,417,224; May 23.

Andrew, Frederick W., assignor to Eisemann Magneto Corporation, Brooklyn, N. Y. Oscillating magneto. No. 1,416,670; May 23.

Andrews Crane Corporation. (See Andrews, Donald S., assignor.)

Andrews, Donald S., assignor to Andrews Crane Corporation, Cleveland, Ohio. Hoisting and conveying machine. No. 1,417,013; May 23.

Andrews, Donald S., assignor to Andrews Crane Corporation, Cleveland, Ohio. Hoisting and conveying device. No. 1,417,014; May 23.

Andrews, Donald S., assignor to Andrews Crane Corporation, Cleveland, Ohio. Hoisting and conveying device. No. 1,417,015; May 23.

Andrews, Ewart S., Beckenham, England. Vaporizer for liquefied gases. No. 1,417,292; May 23.

Angelo, Alan, Atlantic City, N. J. Deflecting device for automobile lamps. No. 1,417,128; May 23.

Angus, Arthur R., Minehead, England. Railway safe-running device. No. 1,417,016; May 23.

Apollo Magneto Corporation. (See Fuegel, G., and Schmid, assignors.)

Archer, George T. (See Taylor, S. E., Ellis, and Archer.)

Ardo, Joseph, Newhall, W. Va. Multipropelled aeroplane. No. 1,417,017; May 23.

Arleskie, William S., Pittston, Pa. Safety device for rolling stock. No. 1,416,926; May 23.

Armstrong, Bertha L. (See Tulloch, D. M., and Bodge, assignors.)

Armstrong, Oscar F., assignor to Ernest D. Haseltine Co., Haverhill, Mass. Sole-grooving machine. No. 1,417,018; May 23.

Armstrong, Percy A. E., Loudonville, N. Y. Apparatus for molding hollow bodies. No. 1,416,927; May 23.

Armstrong, Ralph W., Westfield, assignor of two-thirds to A. Waterman, East Orange, N. J. Cloth clip. No. 1,417,129; May 23.

Arrow Electric Company, The. (See Nero, Arvid H., assignor.)

Artamendi, Dionisio, assignor to Beristain & Cia, Barcelona, Spain. Automatic pistol. No. 1,416,671; May 23.

Arthur, James B., deceased; by M. R. Arthur, executrix, Joplin, Mo. Ore concentrator. No. 1,416,928; May 23.

Arthur, Mary R., executrix. (See Arthur, James B.)

Ashton Valve Company, The. (See Cutler, Arthur E., assignor.)

Asprooth, Axel H., assignor to Cotta Transmission Company, Rockford, Ill. Control set for change-speed transmission. No. 1,416,672; May 23.

Associated Engineers Company. (See Donahoe, Alfred H., assignor.)

Automatic Electric Washer Co. (See Nelson, J., and Seeds, assignors.)

Automatic Recording Sale Company, The. (See Fisher, Charles, assignor.)

Avolio, Vincenzo, and F. Lattanzi, Portland, Oreg. Sanding machine. No. 1,417,293; May 23.

Avril, Joseph, assignor of one-half to L. C. Alexander, Los Angeles, Calif. Box couch. No. 1,417,442; May 23.

Ayers, Theodore C., St. Clairsville, Ohio. Traction device for nonskid chains. No. 1,417,130; May 23.

Babcock Printing Press Manufacturing Company, The. (See Britcher, Charles W., assignor.)

Babson, Henry B., and J. J. Stampen, Chicago, Ill. Valve. No. 1,416,771; May 23.

Bacon, Nathaniel T., Peace Dale, R. I., assignor to The Solvay Process Company, Solvay, N. Y. Process of recovering ammonium chloride from solution. No. 1,416,772; May 23.

Bailey, Emmett L., assignor of one-half to R. L. Bailey, Williamson, W. Va. Mine car. No. 1,417,131; May 23.

Bailey, Robert L. (See Bailey, Emmett L., assignor.)

Bailey, William E., Washington, D. C. Electrolysis. No. 1,416,929; May 23.

Baird Machine Company, The. (See Lewis, Arthur J., assignor.)

Baker, Frederick, Blackheath, assignor to C. E. Hart, Warnford Court, London, England, and H. H. Bunyan, Maidenhead, England. Sewing machine. No. 1,417,476; May 23.

Baldwin, Bernard, Los Angeles, Calif. Ring-slot-cleaning tool. No. 1,416,673; May 23.

Ball, Arlington L., assignor of one-third to H. C. Hequembourg and one-third to G. P. Hequembourg, Dunkirk, N. Y. Hover for poultry. No. 1,417,225; May 23.

Ball, David A., Whittier, Calif. Fishing tool. No. 1,416,930; May 23.

Balthasar, Arthur, Montclair, N. J. Warp beam and analogous device. No. 1,416,931; May 23.

Barbour, Perley E., and H. Lyon, assignors to Brockton Rand Company, Brockton, Mass. Welt moistening machine. No. 1,416,773; May 23.

Bardeloni, Cesare, Rome, Italy. Device for receiving radiosignals. No. 1,416,774; May 23.

Barker, Frank C., St. Paul, Minn., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Pin-tumbler lock. No. 1,417,132; May 23.

Barnitz, Richard H., Washington, D. C. Mail-bag catcher. No. 1,416,932; May 23.

Barrett, Arthur M., Winnetka, Ill. Truck. No. 1,416,674; May 23.

Barrett, Arthur M., Winnetka, Ill. Truck. No. 1,416,675; May 23.

Barry, James T., Chicago, Ill. Pipe or conduit hanger. No. 1,416,679; May 23.

Bartolowsky, Jerome, Oakland, Calif. Musical toy. No. 1,417,019; May 23.

Barton, Henry L., Gary, Ind. Excavator. No. 1,416,933; May 23.

Bass, Earl H., Derby, Iowa. Cleat for tractor wheels. No. 1,417,020; May 23.

Bates, James N. (See Knowles, M. M., and Bates.)

Batie, Joseph E., assignor to Kelsey Wheel Company, Detroit, Mich. Felly-forming machine. No. 1,416,676; May 23.
Batie, Joseph E., assignor to Kelsey Wheel Company, Detroit, Mich. Machine for engaging ferrules with wheel spokes. No. 1,416,677; May 23.
Batie, Joseph E., assignor to Kelsey Wheel Company, Inc., Detroit, Mich. Apparatus for manufacturing vehicle wheels. No. 1,416,678; May 23.
Bauer, Frederick C., Philadelphia, Pa. Toy car. No. 1,416,775; May 23.
Baugher, Jacob, North Webster, and W. F. Kline, South Milford, Ind. Folding swing chair. No. 1,417,443; May 23.
Baum, J., Safe & Lock Company, The. (See Freyberg, J., and Wubbolding, assignors.)
Bawden, Fred M. (in trust). (See Newkirk, Perry B., assignor.)
Baxflat Barrel & Crate Corporation. (See Le Fevre, George A., assignor.)
Bayrer, Homer H., administrator. (See Bayrer, William J.)
Bayrer, William J., deceased, Hartford; H. H. Bayrer, administrator, assignor to R. G. Henry, West Hartford, Conn. Supporting means for shaft bearings. No. 1,416,776; May 23.
Bayrer, William J., deceased, Hartford; H. H. Bayrer, administrator, assignor to R. G. Henry, West Hartford, Conn. Drilling machine. No. 1,416,777; May 23.
Bayrer, William J., deceased, Hartford; H. H. Bayrer, administrator, assignor to R. G. Henry, West Hartford, Conn. Belt-shifting mechanism. No. 1,416,778; May 23.
Bednar, Louis, Westville, and J. Jasus, Catlin, Ill. Faucet for barrels. No. 1,416,779; May 23.
Beeman Tractor Company. (See Mader, Joseph, assignor.)
Bell, Alfred. (See Lambert, A. L., and Bell.)
Bennett, Overton M., Uniondale, Pa. Chicken feeder. No. 1,417,226; May 23.
Berg, Carl E., Minneapolis, Minn. Internal-combustion engine. No. 1,417,133; May 23.
Bergen, Charles B., Washington, D. C. Mute for stringed instruments. No. 1,416,780; May 23.
Beristain & Cia. (See Artamendi, Dionisio, assignor.)
Berkeley, Laurence J., assignor to Hercules Manufacturing Company, Racine, Wis. Gripping device. No. 1,417,294; May 23.
Berner, August, Nuremberg, assignor to C. & E. Fein Elecktrotechnische Fabrik, Stuttgart, Germany. Rock drill and like cutting machine. No. 1,417,227; May 23.
Bevel, Jack H., Dallas, Tex. Measuring device. No. 1,417,021; May 23.
Bevins, Edward C., Cleveland, Ohio. Inflating coupling. No. 1,416,781; May 23.
Biernd, Max F., Miami, Fla. Egg container. No. 1,416,934; May 23.
Binder, Louis, Newark, N. J. Box and making the same. No. 1,417,295; May 23.
Binder, Louis, Newark, N. J. Box fastening. No. 1,417,296; May 23.
Bingham, Jeremiah, assignor to The Bock Bearing Company, Toledo, Ohio. Roller bearing. No. 1,416,680; May 23.
Blair, Ernest F., Warren, Ohio. Condiment holder. No. 1,417,444; May 23.
Blocker, Andrew G., St. Louis, Mo. Attachment for motor-driven devices. No. 1,417,228; May 23.
Bloom, Frederick C., Norwood, Ohio. Display stand. No. 1,416,935; May 23.
Blossom, Alden, Newton Square, Pa. Shock absorber. No. 1,416,782; May 23.
Bobker, Henry. (See Ralph, Thomas L., assignor.)
Bobo, Georgie D. (See Bryan, William H., Jr., assignor.)
Boby, William V. (See Vogt, H. C., Boby, and Lancaster.)
Bock Bearing Company, The. (See Bingham, Jeremiah, assignor.)
Bodge, William. (See Tulloch, D. M., and Bodge.)
Boehck, William E., assignor to Revolvator Company, Jersey City, N. J. Hoisting apparatus. No. 1,417,022; May 23.
Bogda, Frank H., Horicon, Wis. Stock-watering device. No. 1,416,936; May 23.
Bohli, Jacques, Obach-Solothurn, assignor to the Firm Scintilla, Solothurn, Switzerland. Magneto-ignition apparatus for internal-combustion engines. No. 1,417,134; May 23.
Bohmker, John C., Bradley, assignor to Sears, Roebuck and Co., Chicago, Ill. Plowshare. No. 1,416,937; May 23.
Bollmann, Hermann, Hamburg, Germany. Separating extractive matters from solutions of mixtures of solvents and of recovering the latter. No. 1,417,477; May 23.
Bonnevie, Morris. (See Gschwind, Leon, assignor.)
Bonney-Floyd Company, The. (See Dorsey, Walter A., assignor.)
Bowers, John. (See Robinson, E. S., and Bowers.)
Bowers, Robert R., assignor to Dain Manufacturing Co. of Iowa, Ottumwa, Iowa. Draft attachment. No. 1,416,681; May 23.
Bowie, Augustus J., et al., trustees. (See Larsen, Edward A., assignor.)
Bowman, Robert L., Knoxville, Tenn. Vaporizing device for fuel oils. No. 1,416,938; May 23.
Bradshaw, Frederic W., Perth, West Australia, Australia. Construction of reenforced concrete columns or posts. No. 1,417,445; May 23.
Brandenstein, M. J., & Co. (See Burns, Wilford E., assignor.)
Briden, Charles G., assignor of one-half to H. Laughlin, Jr., Los Angeles, Calif. Demountable tire rim. No. 1,416,939; May 23.
Briden, Charles G., assignor of one-half to H. Laughlin, Jr., Los Angeles, Calif. Demountable tire rim. No. 1,416,940; May 23.
Brigham, Nelson E., Holyoke, assignor to Conoid Candy Machine Company, South Hadley Falls, Mass. Manufacture of confections of the coated type. No. 1,417,446; May 23.
Brilhart, Samuel B., New York, N. Y. Car truck. No. 1,417,135; May 23.
Britcher, Charles W., Springfield, Mass., assignor to The Babcock Printing Press Manufacturing Company, New London, Conn. Preparing cutting and scoring matrices for printing presses. No. 1,416,682; May 25.
Brittain, Isaac M., assignor of one-half to G. W. Allan, Denver, Colo. Railway safety switch. No. 1,417,297; May 23.
Brock, Ellis R., Athens, Ga. Window-shade roller. No. 1,417,298; May 23.
Brockton Rand Company. (See Barbour, P. E., and Lyon, assignor.)
Brockway & Meckensturm Machine Company. (See Brockway, Richard W., assignor.)
Brockway, Richard W., assignor to Brockway & Meckensturm Machine Company, Moodus, Conn. Twister. No. 1,416,941; May 23.
Broido, Benjamin, assignor to The Superheater Company, New York, N. Y. Boiler with superheater. No. 1,417,023; May 23.
Broido, Benjamin, assignor to The Superheater Company, New York, N. Y. Water-tube boiler with superheater. No. 1,417,024; May 23.
Brooks, Boultbee, assignor to J. B. Brooks and Company, Limited, Birmingham, England. Cycle, motor-cycle, and analogous saddle. No. 1,416,942; May 23.
Brooks, J. B., and Company. (See Brooks, Boultbee, assignor.)
Brooks, Winfred M., South Orange, N. J. Sealing means. No. 1,416,683; May 23.
Broughton, Walter C., Kansas City, Mo. Fireproof door. No. 1,416,943; May 23.
Brower, Lewis N., and P. Werle, Sellersburg, Ind. Plastic composition for use as a coating for walls of buildings. No. 1,416,684; May 23.
Brown, Joseph S., Portland, Oreg. Toe clip. No. 1,417,447; May 23.
Bruno, Michael A., Brooklyn, N. Y. Amusement device. No. 1,416,783; May 23.
Bryan, Herbert N. (See Ewing, C. M., and Bryan.)
Bryan, William H., Jr., Fresno, assignor to G. D. Bobo, Napa, Calif. Bench vise. No. 1,417,025; May 23.
Bryant Electric Company, The. (See Catlin, Hoyt, assignor.)
Bufford, George W., Buffalo, assignor to J. H. Williams & Company, Brooklyn, N. Y. Chain pipe wrench. No. 1,416,685; May 23.
Bull, George F., assignor of one-half to Charles H. Pugh Limited, Birmingham, England. Lawn mower and the like. No. 1,416,784; May 23.
Bunyan, Henry H., et al. (See Baker, Frederick, assignor.)
Burden, Joseph T., London, England. Case for clinical thermometers. No. 1,416,785; May 23.
Burdette, Robert T., Chicago, Ill. Metal railway tie. No. 1,416,686; May 23.
Burkel, Mathew J., Aurora, Ill. Air-inlet-valve mechanism for pneumatic tools. No. 1,417,136; May 23.
Burkhardt, Jacob R., assignor to The Springfield Metallic Casket Company, Springfield, Ohio. Grave vault. No. 1,417,137; May 23.
Burkhart, Ralph R., assignor of one-fourth to J. E. Clark, Spokane, Wash. Clutch-pedal lock. No. 1,417,138; May 23.
Burnham, George B., Borosolvay, Calif. Recovering sodium carbonate sulphate from saline waters. No. 1,417,139; May 23.
Burns, Wilford E., assignor to M. J. Brandenstein & Co., San Francisco, Calif. Ear-tinning machine. No. 1,417,448; May 23.
Butler, Harold, H., R. H. Hayhurst, and W. Alderson, Halifax, England. Slotting, shaping, milling, drilling, and other like machine tools. No. 1,416,786; May 23.
Butler, Herbert. (See Butler, H. and H., Hayhurst, and Alderson.)
Butler, William F., Fairport, N. Y., assignor to American Can Company. Fish-positioning machine. No. 1,416,687; May 23.
Byrne, Charles F. S., Janesville, assignor to General Motors Corporation, Detroit, Mich. Rod and cross-pin connection and making same. No. 1,417,229; May 23.
C. & E. Fein, Elektrotechnische Fabrik. (See Berner, August, assignor.)
Cahill, Thomas J., Philadelphia, Pa. Aerial bomb. No. 1,417,299; May 23.
Campbell, James C. (See Hatcher, O. M., and Campbell.)
Campbell, William S., New Kensington, Pa. Elevator lock. No. 1,417,449; May 23.
Campbell, William S., New Kensington, Pa. Elevator lock. No. 1,417,450; May 23.
Campbell, William S., New Kensington, Pa. Elevator lock. No. 1,417,451; May 23.

Cantrell, J. T., & Company. (See Cantrell, Joseph T., assignor.)
Cantrell, Joseph T., assignor to J. T. Cantrell & Company, Huntington, N. Y. Vehicle body. No. 1,417,140; May 23.
Caps, Arthur W., assignor to The Piersen Manufacturing Company, Topeka, Kans. Radiator. No. 1,417,026; May 23.
Caps, Arthur W., assignor to The Piersen Manufacturing Company, Topeka, Kans. Engine radiator. No. 1,417,027; May 23.
Caps, Arthur W., assignor to The Piersen Manufacturing Company, Topeka, Kans. Engine-cylinder-cooling means. No. 1,417,028; May 23.
Carling Turbine Blower Co. (See Carlson, Axel W., assignor.)
Carlson, Axel W., assignor to Carling Turbine Blower Co., Worcester, Mass. Rotor. No. 1,417,029; May 23.
Carlson, William A. (See Matson, David E., assignor.)
Carmean, James H. (See Carmean, Samuel M. and J. H.)
Carmean, Samuel M. and J. H., Kansas City, Mo. Electric heater. No. 1,416,688; May 23.
Carmichael, James H., Cedar Falls, Wash. Smoke-fuel attachment. No. 1,417,030; May 23.
Carpenter, Campbell C., assignor to U. S. Light & Heat Corporation, Niagara Falls, N. Y. Preparing paste. No. 1,416,787; May 23.
Carpenter, Campbell C., assignor to U. S. Light & Heat Corporation, Niagara Falls, N. Y. Storage-battery plates. No. 1,416,788; May 23.
Carter, Robert E., Sykesville, Md. Can closure. No. 1,417,141; May 23.
Casey-Hedges Co., The. (See Stimmel, Frederick C., assignor.)
Casorso, Napoleon P., and C. Vacher, Santa Barbara, Calif. Nozzle. No. 1,417,031; May 23.
Catlin, Hoyt, assignor to The Bryant Electric Company, Bridgeport, Conn. Attachment plug. No. 1,417,452; May 23.
Chaffin, Clarence M., Springfield, Mo. Lawn cleaner. No. 1,417,032; May 23.
Chaillaux, Paul, Paris, France. Manufacture of gold-colored sulphurs and vermilions of antimony. No. 1,417,033; May 23.
Chain Belt Company. (See Roddy, Gustav R., assignor.)
Chamberlain, Arthur R., et al. (See Charlton, Robert W., assignor.)
Champion Ignition Company. (See McDougal, Taine G., assignor.)
Chapman, William H., Portland, Me. Magneto generator. No. 1,416,789; May 23.
Chardard, Jean B. D. L., Paris, France. Radiator construction. No. 1,416,944; May 23.
Chardard, Jean B. D. L., Paris, France. Motor vehicle radiator. No. 1,416,945; May 23.
Charlton, Robert W., assignor of one-third to A. F. Klumpp and one-third to A. R. Chamberlain, Pineville, La. Kitchen utensil. No. 1,417,453; May 23.
Cincinnati Bickford Tool Company, The. (See Klausmeyer, David C., assignor.)
Ciotola, Joseph, and D. Polidoro, Philadelphia, Pa. Secret-combination lock. No. 1,416,790; May 23.
Clark, A. G., et al. (See Hahn, Frank R., assignor.)
Clark, Cadle, Harmon Corporation. (See Couch, Forrest J., assignor.)
Clark, John E. (See Burkhart, Ralph R., assignor.)
Clayton, James, Sebakwe, Babbacombe, England, assignor to The Viscose Company, Marcus Hook, Pa. Traverse mechanism. No. 1,417,454; May 23.
Clayton, James, Sebakwe, Babbacombe, England, assignor to The Viscose Company, Marcus Hook, Pa. Spinning box for artificial silk. No. 1,417,455; May 23.
Clayton, James, Sebakwe, Babbacombe, England, assignor to The Viscose Company, Marcus Hook, Pa. Spinning box for artificial silk. No. 1,417,456; May 23.
Cleveland, Clement, New York, N. Y. Pencil sharpener. No. 1,417,034; May 23.
Clough, Frederick H. (See Martin, J., and Clough.)
Clutter, Le Roy P., West Finley, Pa. Cabinet for phonographic disks. No. 1,416,689; May 23.
Cmeyla, Bozena, Kewaunee, Wis. Flour sifter. No. 1,417,035; May 23.
Cobus, Lawrence J., Milwaukee, Wis. Steering-wheel heater. No. 1,416,946; May 23.
Cockburn, David, and D. MacNicoll, Cardonald, near Glasgow, Scotland. Engine stop gear. No. 1,416,791; May 23.
Cohen, Philip, Elizabeth, N. J. Hand bag. No. 1,416,590; May 23.
Cole, Arthur D. (See Geiger, David F., assignor.)
Columbia Graphophone Manufacturing Company. (See Mattern, David L., assignor.)
Combination Machine Company. (See Thom, James C., assignor.)
Connell, Mary, et al. (See Tracy, Laurence J., assignor.)
Conoid Candy Machine Company. (See Brigham, Nelson E., assignor.)
Conover, Courtney, Philadelphia, Pa., and H. D. Gibbs, San Francisco, Calif.; said Conover assignor to J. M. Selden, Pittsburgh, Pa. Manufacture of anthraquinone. No. 1,417,367; May 23.
Cook, Walter H., New Orleans, La. Electric illumination. No. 1,417,457; May 23.
Corrado, Vincent. (See Delia, E., and Corrado.)
Cortez, Gip, Tipton, Calif. Restraining apparatus. No. 1,417,230; May 23.
Cory, Charles B., Chicago, Ill. Universal putting disk. No. 1,417,458; May 23.
Cotta Transmission Company. (See Asprooth, Axel H., assignor.)
Cotter, Richard G., Sausalito, Calif. Ballot tally sheet. No. 1,416,792; May 23.
Couch, Albert B., Marlin, Tex. Surgical instrument. No. 1,417,142; May 23.
Couch, Forrest J., assignor to Clark, Cadle, Harmon Corporation, Rochester, N. Y. Driving mechanism for laundry machines. No. 1,417,300; May 23.
Cox, David H., Roselle, N. J. Cap for valve tubes. (Reissue.) No. 15,359; May 23.
Cox, Joseph D., Healdsburg, Calif. Dehydrating apparatus. No. 1,416,793; May 23.
Cox, William A., Phoenix, Ariz. Combined hose drum and coupling. No. 1,417,459; May 23.
Cramer, Albert N. (See Landrum, F. H., and Cramer.)
Crawford, Dolph B., Chicago, Ill. Piston. No. 1,416,795; May 23.
Cremean, William F., Toledo, Ohio, assignor to The Wine Railway Appliance Company. Railway car. (Reissue.) No. 15,360; May 23.
Cresci, Anthony L., Vineland, N. J. Safety device for doors. No. 1,417,301; May 23.
Creveling, John L., White Plains, N. Y., assignor to Gould Coupler Company. Electric regulation. No. 1,417,143; May 23.
Crozier, Alfred O., New York, N. Y. Manufacture of hollow cementitious products. No. 1,416,691; May 23.
Cushman, Everett E., assignor to The Piersen Manufacturing Company, Topeka, Kans. Radiator. No. 1,417,037; May 23.
Cuthbert, Robert F., assignor to Theo. Tiedemann & Sons, Inc., New York, N. Y. Box for garments. No. 1,417,144; May 23.
Cutler, Arthur E., Somerville, assignor to The Ashton Valve Company, Boston, Mass. Pressure gauge. No. 1,416,794; May 23.
Dages, Louis P., assignor of one-half to L. F. Revell, Baltimore, Md. Lock. No. 1,417,038; May 23.
Dahl, Thure, New York, N. Y., assignor to Lightoiler Company. Lighting fixture. No. 1,417,145; May 23.
Dain Manufacturing Co. of Iowa. (See Bowers, Robert R., assignor.)
Dantsizen, Christian, Schenectady, assignor to General Electric Company, New York, N. Y. Electrolytic apparatus and method. No. 1,416,692; May 23.
Darrach, Bradford, Jr., Elizabeth, N. J., assignor to Laminated Shim Company, Inc., Long Island City, N. Y. Making shims. No. 1,417,039; May 23.
Davies, Samuel. (See Lewis, J., and Davies.)
Davis, Charles T., New York, N. Y. Coating process and apparatus. No. 1,416,796; May 23.
Davis, Tenney L., Somerville, Mass. Mercury nitrate as a reagent for the preparation of nitrophenols. No. 1,417,368; May 23.
Davis, Tenney L., Somerville, Mass. Preparation of guanidine. No. 1,417,369; May 23.
Dawson, Robert K., Guelph, Ontario, Canada. Fitting for stools or the like. No. 1,416,693; May 23.
Daylight Film Corporation. (See John, Robert, assignor.)
Dayton Rubber Manufacturing Company, The. (See Freedlander, A. L., and Goodwin, assignors.)
Dean Hotel Company. (See Reichl, Joseph, assignor.)
De Armond, Frank V., Topeka, Kans. Booster appliance for locomotives and other automotive machines. No. 1,417,302; May 23.
Decker, Margaret, et al. (See Tracy, Laurence J., assignr.)
Dederich, William, and S. Willner, London, England. Burner for fluid fuel. No. 1,417,146; May 23.
Deere & Company. (See Neighbour, Leonard B., assignor.)
Deering, Walter L., et al. (See Tracy, Laurence J., assignor.)
Defauconpret, Charles A., Paris, France. Delivering or bagging apparatus. No. 1,417,040; May 23.
De Leeuw, Adolph L., Plainfield, N. J., assignor to The Singer Manufacturing Company. Gauge. No. 1,416,694; May 23.
Delia, Egidio, and V. Corrado, New York, N. Y. Fan for sewing machines. No. 1,417,470; May 23.
De Luiz, Edward R. (See Kolbe, F. H., and De Luiz.)
Dennedy, James H., assignor to Kelvinator Corporation, Detroit, Mich. Compressor. No. 1,416,695; May 23.
Dennedy, James H., assignor to Kelvinator Corporation, Detroit, Mich. Compressor. No. 1,416,696; May 23.
Denny, James J. (See Fairlie M. F., and Denny.)
De Nolly, Hector, assignor to La Societe Metallurgique Du Frayol, Lyon, France. Electric furnace. No. 1,417,303; May 23.
Deschamps, Albert, Paris, France. Suspension means for motor cars. No. 1,416,797; May 23.
Deschner, Charles A., Portland, Oreg. Foot throttle control. No. 1,416,798; May 23.
Desrochers, Maximilian, Montreal, Quebec, Canada. Holder for pencils and the like. No. 1,416,799; May 23.
Des Rosier, Narcisse, Detroit, Mich. Window-shifting mechanism. No. 1,417,147; May 23.
Detjen, Henry, Manitowoc, Wis. Coupon-cutting device. No. 1,416,800; May 23.

De Voe, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Thread-controlling mechanism. No. 1,416,697; May 23.
Deweese, Albert C., Chicago, Ill. Street sweeper. No. 1,417,231; May 23.
De Witt, Harry E. (See Kibler, John, Jr., assignor.)
Dey, Gilbert S., assignor to American Optical Company, Southbridge, Mass. Lens-forming. No. 1,416,947. May 23.
Diana Knitting Company. (See Duesler, Walter, assignor.)
Diesel, William F., Rochester, and W. R. Price, New York, assignors to Sargent and Greenleaf, Inc., Rochester, N. Y. Lock. No. 1,417,148; May 23.
Dion, Adolphe A., et al. (See Moodie, Robert P., assignor.)
Ditson, Jesse, Littleton, Colo., assignor to Ingersoll-Rand Company, Jersey City, N. J. Double-drum hoist. No. 1,417,041; May 23.
Dobis, Jack, Detroit, Mich. Dispensing device. No. 1,417,042; May 23.
Dobson, William A., Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y. Typewriting machine. No. 1,417,304; May 23.
Dodds, Ethan I. (See Stafford, B. E. D., and Dodds.)
Dodds, Ethan I., Central Valley, N. Y., assignor to Flannery Bolt Company, Pittsburgh, Pa. Stay-bolt structure. No. 1,417,149; May 23.
Dodds, Ethan I., assignor to Flannery Bolt Company, Pittsburgh Pa. Stay-bolt construction. No. 1,417,150; May 23.
Donahoe, Alfred H., assignor to Associated Engineers Company, Chicago, Ill. Combination socket and resistance. No. 1,416,948; May 23.
Donop, August W., San Francisco, Calif., assignor to U. S. Light & Heat Corporation, Niagara Falls, N. Y. Compressible pile regulator. No. 1,417,151; May 23.
Dorsey, Walter A., assignor to The Bonney-Floyd Company, Columbus, Ohio. Mine car. No. 1,417,043; May 23.
Dorsey, Walter A., assignor to The Bonney-Floyd Company, Columbus, Ohio. Car. No. 1,417,044; May 23.
Doujak, Maria, New York, N. Y. Automobile safety device. No. 1,417,305; May 23.
Dow Chemical Company, The. (See Dow, Herbert H., assignor.)
Dow, Herbert H., assignor to The Dow Chemical Company, Midland, Mich. Making insecticides. No. 1,417,232; May 23.
Downey, James H. (See Harris, H. E., and Downey.)
Draver, Emil R., Richmond, Ind. Disk wheel. No. 1,417,233; May 23.
Dremel, Albert J., assignor to The Maytag Company, Newton, Iowa. Washing machine. No. 1,417,306; May 23.
Driggs, Louis L. Jr., New York, N. Y. Fixed ammunition. No. 1,417,460; May 23.
Duesler, Walter, assignor to Diana Knitting Company, Johnstown, N. Y. Making buttonholes. No. 1,416,801; May 23.
Duke, Charles M., Murphysboro, Ill. Butchering stand. No. 1,417,234; May 23.
Dukes, William, assignor to The Warland Dual Rim Company Limited, Coventry, Warwick, England. Road-vehicle wheel. No. 1,417,152; May 23.
Duket, Henry T., assignor to The Willys-Overland Company, Toledo, Ohio. Ignition system. No. 1,416,802; May 23.
Dunham, Joseph C., Oklahoma, Okla. Weather strip. No. 1,416,698; May 23.
Du Priest, John R., Baltimore, Md. Connecting rod. No. 1,417,307; May 23.
Dyrssen, Waldemar, New York, N. Y. Tilting furnace. No. 1,416,699; May 23.
Eason, Clarence M., Moline, Ill., assignor to Hyatt Bearings Division, General Motors Corporation, Newark, N. J. Dynamometer recording instrument. No. 1,417,461; May 23.
Eason, Clarence M., Moline, Ill., assignor to Hyatt Bearings Division, General Motors Corporation, Newark, N. J. Dynamometer. No. 1,417,462; May 23.
Eberts, Edward C., Jeffersonville, Ind. Stock divider. No. 1,417,045; May 23.
Edison, Thomas A., Llewellyn Park, West Orange, N. J. Production of thin metal sheets or foils. No. 1,417,464; May 23.
Edison, Thomas A., West Orange, and C. G. Kircher, Irvington, assignor to New Jersey Patent Company, West Orange, N. J. Mold. No. 1,417,463; May 23.
Edwards, Edward B. (See Smith, C. H., and Edwards.)
Edwards, Henry J., Elyria, assignor to The Willys-Overland Company, Toledo, Ohio. Baffle plate for V-type motors. No. 1,416,803; May 23.
Eisemann Magneto Corporation. (See Andrew, Frederick W., assignor.)
Ekin, Linn D., Butler, Pa. Hoisting-drum control. No. 1,417,465; May 23.
Elder, Edgar E. (See Ram, John H., assignor.)
Electric Boat Company. (See Grieshaber, Hugo E., assignor.)
Electrol Manufacturing Company. (See Williams, Horace M., assignor.)
Ellis, Frederick O. (See Taylor, S. E., Ellis, and Archer.
Ellis, Harry E., Jacksonville, Fla. Apparatus for producing ozone. No. 1,417,046; May 23.
Ellis, John T., and O. A. Kern, Nashville, Tenn. Explosive-engine attachment. No. 1,417,308; May 23.
England, Alexander, Wilkinsburg, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Pump valve. No. 1,417,235; May 23.
Eppley, Charles S., York, Pa., assignor to New Ideal Power Company. Chemical composition. No. 1,417,047; May 23.
Evans, Earl R., Great Barrington, Mass. Control apparatus. No. 1,416,804; May 23.
Evans, Ernest G. (See Shorter, Wily B., assignor.)
Evans, George, New York, N. Y. Dental instrument. No. 1,417,236; May 23.
Evans, George, New York, N. Y. Dental instrument. No. 1,417,237; May 23.
Ewing, Charles M., and H. N. Bryan, Deweyville, Ohio. Beet and vegetable harvester. No. 1,417,309; May 23.
Fairlie, Matthew F., and J. J. Denny, Cobalt, Ontario, Canada. Treating manganiferous ores of the precious metals. No. 1,417,153; May 23.
Faris, Edwin E., Chattanooga, Tenn. Valve lifter. No. 1,417,370; May 23.
Farkas, Eugene J., assignor to Ford Motor Company, Detroit, Mich. Tractor wheel. No. 1,416,949; May 23.
Farmer, Clyde C., Pittsburgh, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Safety car-control equipment. No. 1,417,238; May 23.
Farmer, Thomas, Jr., New York, N. Y. Gear indicator. No. 1,417,048; May 23.
Farmer, Thomas, Jr., New York, N. Y. Speed indicator. No. 1,417,049; May 23.
Farrar, James W., assignor to Farrar Motors Corporation, Buffalo, N. Y. Oil burner. No. 1,417,371; May 23.
Farrar Motors Corporation. (See Farrar, James W., assignor.)
Fauber, William H., Brooklyn, N. Y. Scavenging system for internal-combustion engines. No. 1,417,310; May 23.
Fay, Harold J. W., Westboro, Mass., assignor to Submarine Signal Company, Portland, Me. Ship protection. No. 1,416,950; May 23.
Feder, David P. (See Kimball, Matthew D., assignor.)
Fenicle, Frank J., Easton, Pa. Split pin. No. 1,416,700; May 23.
Fentress, James, Chicago, Ill. Die track for forming spiral steel tubing. No. 1,417,050; May 23.
Ferrier, Peter H., Jr., Chicago, Ill. Boiler. No. 1,416,805; May 23.
Fichten, Frank M., Manitowoc, Wis. Traction lug. No. 1,416,806; May 23.
Finizio, Thomas D., Kitchawan, N. Y., assignor to Steatite Electric Products Corporation. Electric heating apparatus. No. 1,417,154; May 23.
Fisher, Charles, assignor to The Automatic Recording Sale Company, Chicago, Ill. Apparatus for applying a cover to a casing. No. 1,417,155; May 23.
Fisher, Daniel C., Boston, Mass. Lock valve. No. 1,416,807; May 23.
Fisher, Frank L., Milwaukee, Wis. Attachment for grease plugs. No. 1,416,808; May 23.
Flanders, Warren B., Essington, Pa., assignor to Westinghouse Electric and Manufacturing Company. Turbine blade. No. 1,416,701; May 23.
Flanders, Warren B., Essington, Pa., assignor to Westinghouse Electric & Manufacturing Company. Reversing turbine. No. 1,416,702; May 23.
Flannery Bolt Company. (See Dodds, Ethan I., assignor.)
Flannery Bolt Company. (See Landgraf, Frederick K., assignor.)
Flannery Bolt Company. (See Stafford, B. E. D., and Dodds, assignors.)
Flesher, Henry L., Riley, Ind. Pneumatic or cushion vehicle wheel. No. 1,417,311; May 23.
Flint, Clayton S. (See Albertus, Floyd A., assignor.)
Forbes, Kingston, Flint, assignor to General Motors Corporation, Detroit, Mich. Latch device for vehicle doors. No. 1,417,239; May 23.
Force, Merton H., Danville, Ill. Door stop and holder. No. 1,416,703; May 23.
Ford Motor Company. (See Farkas, Eugene J., assignor.)
Fortunato, Antonio A., Boston, Mass. Heel for women's shoes. No. 1,417,156; May 23.
Fossel, Joseph, Grafton, assignor to Alsatian Machine Works, Limited, Boston, Mass. Combing machine. No. 1,416,951; May 23.
Foster, Ernest H., Dongan Hills, assignor to Power Specialty Company, New York, N. Y. Superheater. No. 1,416,809; May 23.
Foster, Shubel A., Hartford, Conn. Micrometer gauge. No. 1,416,810; May 23.
Fousek, Joseph, San Francisco, Calif. Cake-forming machine. No. 1,417,157; May 23.
Frankland, William H., Jackson, Tenn. Sharpening device. No. 1,417,158; May 23.
Fraser, Lester C., assignor of one-half to I. M. Walcott, Los Angeles, Calif. Oil-gas burner. No. 1,417,159; May 23.
Frayer, Lee A., and W. J. Miller, Columbus, Ohio. Tempering apparatus. No. 1,416,811; May 23.
Frederick, William H., Cristobal, Canal Zone. Combination cigarette and match case. No. 1,417,160; May 23.
Freedlander, Abraham L., and W. G. Goodwin, assignors to The Dayton Rubber Manufacturing Company, Dayton, Ohio. Rubber tire. No. 1,417,051; May 23.

French, Harry F., Fremont, Ohio, assignor to National Carbon Company, Inc. Electric battery. No. 1,416,704; May 23.
Freyberg, Joseph, and L. F. Wubbolding, Newport, Ky., assignors to The J. Baum Safe & Lock Company, Cincinnati, Ohio. Door and hinge construction. No. 1,416,812; May 23.
Fried. Krupp Aktiengesellschaft. (See Martin, Friedrich, assignor.)
Friedland, Jacob M., New York, N. Y. Revolving door. No. 1,417,372; May 23.
Fuegel, Gottlob, and Herman Schmid, assignors, by mesne assignments, to Apollo Magneto Corporation, Brooklyn, N. Y. Key. No. 1,417,161; May 23.
Fukuda, Kinsuke, Yokohama, Japan. Elastic roller. No. 1,417,240; May 23.
Fuller, Charles H., Co. (See Perkins, Floyd R., assignor.)
Fuller, Ralph E., Washington, D. C. Dustproofing and cooling tractor cabs. No. 1,416,813; May 23.
Gade, Frank, Chicago, Ill. Radiator attachment. No. 1,417,312; May 23.
Gagen, John E., Pittsburgh, Pa. Dishwashing machine. No. 1,417,162; May 23.
Gallaway, Merrill W. (See Price, Frank J., assignor.)
Gammeter, William F., Cadiz, Ohio. Film reel. No. 1,417,313; May 23.
Gardner, Ralph D., Beloit, Wis. Ring-grinding machine. No. 1,416,952; May 23.
Garrett, Ray, Burns City, Ind. Tire pump. No. 1,417,163; May 23.
Gas Research Company, The. (See Smith, Harry F., assignor.)
Gaskill, James A., Cleveland, Ohio. Furnace. No. 1,417,478; May 23.
Gasteiger, Justus A., Dormont, Pa. Pneumatic conveyer. No. 1,417,052; May 23.
Geiger, David F., assignor of one-third to A. D. Cole, Minneapolis, Minn. Hitch for tractors. No. 1,417,373; May 23.
George, Eleanor V. (See Ladd, Earnest W., assignor.)
George, Rugar E. (See Griffin, M. N., and George.)
General Electric Company. (See Dantsizen, Christian, assignor.)
General Electric Company. (See Martin, J., and Clough, assignors.)
General Electric Company. (See Steenstrup, Christian, assignor.)
General Motors Corporation. (See Byrne, Charles F. S., assignor.)
General Motors Corporation. (See Forbes, Kingston, assignor.)
General Motors Corporation. (See Mason, Arthur C., assignor.)
General Motors Corporation. (See Meyers, John M., assignor.)
General Motors Corporation. (See Schutt, Duny A., assignor.)
Gerhart, Harvey F., Philadelphia, Pa. Automatic brake mechanism. No. 1,417,241; May 23.
Gevecker, Charles J., et al. (See Tracy, Laurence J., assignor.)
Gevecker, Harry, et al. (See Tracy, Laurence J., assignor.)
Gibbs, Harry D. (See Conover, C., and Gibbs.)
Gibson, George H., Montclair, N. J. Furnace. No. 1,417,374; May 23.
Giles, J. S., & Sons. (See McGarrahan, John F., assignor.)
Gilson, Robert M., Pittsburgh, assignor to The Union Switch & Signal Company, Swissvale, Pa. Three-position relay. No. 1,416,953; May 23.
Girard, Alfred O., Decatur, assignor to Glacier Refrigerating Machine Co., a common-law trust, A. O. Girard, trustee, Chicago, Ill. Compressing machine with automatic oil return. No. 1,416,705; May 23.
Glacier Refrigerating Machine Co. (See Girard, Alfred O., assignor.)
Glickerman, Jacob I., Chicago, Ill. Tire gauge. No. 1,416,814; May 23.
Globe Optical Company. (See Presby, Leroy Q., assignor.)
Godley, Charles E., Detroit, Mich. Focusing device. No. 1,417,053; May 23.
Goodman, Charles J., Philadelphia, Pa. Winding device for motors of talking and other machines. No. 1,417,314; May 23.
Goodwin, William G. (See Freedlander, A. L., and Goodwin.)
Gould Coupler Company. (See Creveling, John L., assignor.)
Grace, Edwin B., and W. J. Laffey, Memphis, Tenn. Freight-handling system. No. 1,417,242; May 23.
Graf, Martin T., assignor of one-half to F. X. Irr, Buffalo, N. Y. Knife sharpener. No. 1,417,054; May 23.
Graff, Walter W., Cleveland, Ohio. Electric water heater. No. 1,417,315; May 23.
Graffam, Walter S., Shrewsbury, Mass. Folding table. No. 1,416,815; May 23.
Grass, Alfred, assignor to American Can Company, New York, N. Y. Master sheets for use in making lithographic printing surfaces and making same. No. 1,416,706; May 23.
Gravel, Albundius, assignor to The Willys-Overland Company, Toledo, Ohio. Rear-deck construction. No. 1,416,816; May 23.
Graves, Clarence D., Dublin, Ga. Coffee pot or urn. No. 1,417,243; May 23.
Greelish, Rose A., South Braintree, Mass. Window washer and cleaner. No. 1,416,817; May 23.
Green, Charles A., and H. F. Schuh, assignors to The C. F. Pease Company, Chicago, Ill. Drawing instrument. No. 1,417,375; May 23.
Green, James F., Jarbalo, assignor of one-half to B. F. Samuels, Leavenworth, Kans. Drying grain bin. No. 1,417,316; May 23.
Green, James M., Chicago, Ill. Nonskid chain for automobile tires. No. 1,417,055; May 23.
Greenberg, Samuel L., New York, N. Y. Artificial tooth. No. 1,417,376; May 23.
Greer, John H., San Francisco, Calif. Savings bank. No. 1,417,164; May 23.
Grieshaber, Hugo E., Groton, Conn., assignor to Electric Boat Company. Valve mechanism for submarines. No. 1,417,165; May 23.
Griffin Choker Ash Tray, Inc. (See Griffin, John P., assignor.) (Reissue.)
Griffin, John P., Waddington, N. Y., assignor to Griffin Choker Ash Tray Inc., Dover, Del. Ash tray. (Reissue.) No. 15,361; May 23.
Griffin, Mortimer N., and R. E. George, Rome, Ga. Quick-lift pump. No. 1,417,317; May 23.
Gschwind, Leon, Youngstown, Ohio, assignor to M. B. Bonnevie, Chicago, Ill. Manhole frame and cover. No. 1,417,377; May 23.
Gudknecht, Albert F., Minneapolis, Minn. Securing rims for receptacle covers. No. 1,417,166; May 23.
Guggenheim, Markus, Basel, Switzerland, assignor to The Hoffmann-La Roche Chemical Works, New York, N. Y. Complex silver salts of α-amino acids. No. 1,417,167; May 23.
Hadaway, John B., Swampscott, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J. Cutting machine. No. 1,416,707; May 23.
Hagedorn, Ernst F. C., and H. P. Hansen, Helsinger, Denmark. Apparatus for blowing out soot in boiler tubes. No. 1,416,708; May 23.
Hahn, Frank R., Decatur, assignor of fifty-nine and two-thirds per cent to W. P. Landon, Rochelle, Ill., and fifteen per cent to A. G. Clark, St. Paul, Minn. Building construction. No. 1,416,709; May 23.
Hall, C. M., Lamp Co. (See Platz, Henry T., assignor.)
Hall, Eric E., Chicago, Ill. Ceiling and floor construction. No. 1,417,056; May 23.
Hall, Leon A., Keene, N. H. Medical appliance. No. 1,417,318; May 23.
Hall, Nathaniel C., Old Lyme, Conn. Strawberry huller. No. 1,416,818; May 23.
Halvorsen, Halbert B., Chicago, Ill., assignor to Sullivan Machinery Company. Lubricating mechanism. No. 1,417,057; May 23.
Halvorsen, Halbert B., Chicago, Ill., assignor to Sullivan Machinery Company. Lubricating mechanism for compressors. No. 1,417,058; May 23.
Hamler, Jerome P., assignee. (See Hamler, Peter J.) (Reissue.)
Hamler, Peter J., deceased, Chicago, Ill., by J. P. Hamler, assignee, Chicago, Ill. Fertilizer drier. (Reissue.) No. 15,362; May 23.
Hammerberg, Erick O., Chicago, Ill. Garter. No. 1,417,244; May 23.
Handy, Lucius, Woodlynn, N. J. Grip hook. No. 1,417,378; May 23.
Hansen, Hans P. (See Hagedorn, E. F. C., and Hansen.)
Hansley, Edward M., Stockton, Calif. Merry-go-round attachment for phonographs. No. 1,417,060; May 23.
Hansley, Edward M., Stockton, Calif. Advertising novelty and toy. No. 1,417,061; May 23.
Harris Accessory Company. (See Harris, William A., assignor.)
Harris, Hubert E., and L. O. Swaim, assignors of one-third to J. F. Pickard, Atlanta, Ga. Noiseless blower for locomotives. No. 1,416,954; May 23.
Harris, Hubert E., Jonesboro, and J. H. Downey, Gainesville, Ga. Railway spike. No. 1,416,819; May 23.
Harris, Oliver H., Moro, assignor of one-fourth to J. L. Lee, Thomasville, Ark. Animal poke. No. 1,417,245; May 23.
Harris, William A., assignor to Harris Accessory Company, Greenville, S. C. Low-pressure alarm for pneumatic tires. No. 1,417,168; May 23.
Hart, Cyril E., et al. (See Baker, Frederick, assignor.)
Harvat, John, Eastman, Wis. Combined thrasher and clover huller. No. 1,416,820; May 23.
Harvin, Arthur L., Washington, D. C. Method and means for treating and filling tooth cavities and nerve canals. No. 1,417,379; May 23.
Haseltine, Ernest D., Co. (See Armstrong, Oscar F.)
Haskel, Fred, Detroit, Mich. Card holder. No. 1,417,319; May 23.
Hatch, Herbert F., Newton, Mass. Golf-club separator. No. 1,417,380; May 23.
Hatcher, Oscar M., and J. C. Campbell, Mankato, Minn. Extension steering device. No. 1,417,320; May 23.
Hawkins, Elbert E., Binghamton, N. Y. Electric transportation system. No. 1,417,062; May 23.
Hayhurst, Richard H. (See Butler, H. and H., Hayhurst, and Alderson.)
Hazeltine, Benjamin P., Wheeling, W. Va. Ingot. No. 1,417,246; May 23.
Heath, Earl, Marinette, Wis. Building structure. No. 1,416,821; May 23.

Heath, Ralph D., assignor of one-half to J. Ring, Portland, Oreg. Pneumatic brake for vehicles. No. 1,416,822; May 23.
Hecht, Ephraim S., New York, N. Y. Shoe rest. No. 1,416,823; May 23.
Heigh, John W., Rochester, N. Y. Chuck for lathes and the like. No. 1,417,169; May 23.
Hemfling, John A., Lester Prairie, Minn. Shade and curtain bracket. No. 1,417,247; May 23.
Hengst, Fredrick G., Covina, Calif. Cultivator. No. 1,417,381; May 23.
Hennessy, James J., New York, N. Y. Locomotive journal lubricator. No. 1,416,710; May 23.
Henry, Robert G. (See Bayrer, William J., assignor.)
Hequembourg, Harry C., et al. (See Ball, Arlington L., assignor.)
Hercules Manufacturing Company. (See Berkeley, Laurence J., assignor.)
Herting, Charles F. C., Berkeley, Calif. Refining crude carbon. No. 1,416,955; May 23.
Heyl, Triphon D. (See Schmidt, B. F., and Heyl.)
Himes, Samuel F., Indianapolis, Ind. Baseball game. No. 1,417,063; May 23.
Hickok Manufacturing Company. (See Shields, Lowell W., assignor.)
Hindahl, David, assignor to Rodger Ballast Car Company, Chicago, Ill. Convertible dump car. No. 1,416,711; May 23.
Hindle, Charles F., Elmhurst, N. Y. Galvanometer. No. 1,416,824; May 23.
Hindle, Thomas, Glossop, England. Calico-printing machine. No. 1,416,712; May 23.
Hink, William H., assignor of one-half to J. P. Morningstar, Wheeling, W. Va. Vehicle fender. No. 1,417,321; May 23.
Hoelscher, Gottlieb H., Battle Creek, Iowa. Combination soap holder and grater for washing-machine dashers or agitators. No. 1,416,825; May 23.
Hoffman-La Roche Chemical Works, The. (See Guggenheim, Markus, assignor.)
Hoffman, Rudolph, Kankakee, assignor to Sears, Roebuck and Co., Chicago, Ill. Stove construction. No. 1,416,956; May 23.
Hogg, Francis, Pittsburgh, Pa., assignor to Locomotive Stoker Company. Locomotive tender. No. 1,417,322; May 23.
Hoglund, Erick. (See Strom, M., and Hoglund.)
Holder, William H., Moscow, Pa. Mirror fastener. No. 1,416,826; May 23.
Hollenbeck, Michael J., Gloversville, N. Y. Mitten. No. 1,417,323; May 23.
Holmes, Bradford B., New York, N. Y. Ordnance. No. 1,416,827; May 23.
Holmes, Bradford B., New York, N. Y. Firearm. No. 1,416,828; May 23.
Holmes, Bradford B., Bellingham, Wash. Forming helically-convoluted tubes. No. 1,417,324; May 23.
Holmgren, Charles H., Bloomfield, N. J. Centrifugal separator. No. 1,417,064; May 23.
Honig, Sigmund, New York, N. Y. Telephone receiver. No. 1,417,479; May 23.
Hopkins, Charles E., Plainfield, N. J. Cooling finished stereotype printing plates. No. 1,416,714; May 23.
Hopkins, Morton K., assignor to J. L. Kennedy, Chicago, Ill. Fusible link. No. 1,416,713; May 23.
Hopp, Herman and L., New York, N. Y. Ticket holder. No. 1,417,325; May 23.
Hopp, Leo. (See Hopp, Herman and L.)
Horváth, Jozseph, South Bethlehem, Pa. Combined milk-bottle receptacle and mail box. No. 1,417,382; May 23.
Hosmer, Edward E., New York, N. Y. Shoe construction. No. 1,417,170; May 23.
Hostetler, Charles N. (See Wunderlick, Jay E., assignor.)
Hoting, Hans C., Neuss, Germany, assignor to Troy Laundry Machinery Co. Ltd., Chicago, Ill. Pressing machine. No. 1,416,829; May 23.
Hottman, Charles W., assignor to C. Offenhauser, Philadelphia, Pa. Cutting and mixing machine. No. 1,417,065; May 23.
Howard, Guy C., Tacoma, Wash., assignor to American Smelting & Refining Company. Enriching metallurgical gases containing sulphur dioxide. No. 1,417,066; May 23.
Howard, Guy C., Tacoma, Wash., assignor to American Smelting & Refining Co. Recovering sulphur dioxide from waste metallurgical gases. No. 1,417,067; May 23.
Howard, Guy C., Tacoma, Wash., assignor to The American Smelting & Refining Co. Making sulphur from sulphur dioxide. No. 1,417,068; May 23.
Howell, William Q., and C. B. Rader, Denver, Colo. Pressed-steel automobile brake-shoe construction. No. 1,417,069; May 23.
Hughes, Arthur S., Mansfield, Ohio. Baluster-railing construction. No. 1,416,957; May 23.
Hughes Tool Company. (See Wadsworth, Frank L. O., assignor.)
Humphrey, Orson J., Elyria, Ohio. Pneumatic-tire tube. No. 1,417,383; May 23.
Hunnewell, Elbridge R., New York, N. Y. Split-rim attachment. No. 1,417,171; May 23.
Husson, Jean, Berne, Switzerland. Soil mixture for a forced growing of potatoes and its manufacture. No. 1,417,248; May 23.
Hutter, Francis, New York, N. Y., assignor to The McCall Company. Pattern chart or envelope. No. 1,416,715; May 23.
Hyatt Bearings Division, General Motors Corporation. (See Eason, Clarence M., assignor.)
Hydraulic Pressed Steel Company, The. (See Kranz, H. W., and Lukes, assignors.)
Hyndman, Hugh, Palmerston, Ontario, Canada. Sled. No. 1,417,172; May 23.
Imler, Thomas E., Salina, Kans. Automobile turntable. No. 1,417,384; May 23.
Ingersoll-Rand Company. (See Ditson, Jesse, assignor.)
International Coal Products Corporation. (See Smith, C. H., and Edwards, assignors.)
International Precipitation Company. (See Wolcott, Edson R., assignor.)
Irr, Frank X. (See Graf, Martin T., assignor.)
Jack, Alexander G. M., Sheffield, England. Suspension transporter arrangement. No. 1,417,070; May 23.
Jacob, Ernst A. H., San Antonio, Tex. Feeder drum. No. 1,416,830; May 23.
Jacobs, Learcus H., Carthage, Ark. Hitch rack. No. 1,417,385; May 23.
Jacobsson, Axel T., Cleveland, Ohio. Lens mounting. No. 1,417,326; May 23.
Jasus, John. (See Bednar, L., and Jasus.)
Jeffries, Charles M. (See Smith, John F., assignor.)
Jervis, Harry, Weirton, W. Va. Automatic gas-conduit control means. No. 1,416,831; May 23.
Jette, Archie N., Anaconda, Mont. Roof construction for reverberatory furnaces. No. 1,416,716; May 23.
Johansen, Harry C., Chicago, Ill., assignor to Sullivan Machinery Company. Lubricating mechanism. No. 1,417,059; May 23.
Johansson, Ernst A., Strangnas, Sweden. Tool holder. No. 1,416,832; May 23.
John, Robert, assignor, by mesne assignments, to Daylight Film Corporation, New York, N. Y. Photograph positive and negative. No. 1,417,328; May 23.
Johnson, Henry V., St. Paul, Minn. Automatic timer for automobiles. No. 1,416,833; May 23.
Johnson, John G., St. Louis, Mo. Hoisting machine. No. 1,417,386; May 23.
Jones, Arthur E., Ridley Park, Pa. Gravity toy railway. No. 1,417,071; May 23.
Jones, Everett R., assignor of one-half to W. E. Allen, Wyandotte, Mich. Automobile bumper. No. 1,416,834; May 23.
Jones, Gordon B., Wilson, N. C. Support for oil cans. No. 1,417,327; May 23.
Jones, Walter O., Lyons Platt, Ohio. Bundling machine. No. 1,417,329; May 23.
Jungerheld, Frederick F., assignor of one-fourth to W. B. Wylie and one-fourth to Stork Motor Company, Saginaw, Mich. Radiator tube. No. 1,417,387; May 23.
Kahns, Walter R., assignor to J. H. White Manufacturing Company, Brooklyn, N. Y. Electric-candle-lighting fixture. No. 1,417,330; May 23.
Kaiserman, Jacob R., Livingston, Mont. Electrical door-operating device. No. 1,417,173; May 23.
Kalaf, John, Jr., Meta, Mo. Musical instrument. No. 1,417,174; May 23.
Kalmus, Comstock & Wescott, Incorporated. (See Wescott, William B., assignor.)
Kardong, Theodore, Minneapolis, Minn. Spiral machine. No. 1,417,249; May 23.
Karitzky, John. (See Pleister, H. W., and Karitzky.)
Keenan, Walter F., Jr., New York, N. Y., assignor to Power Specialty Company. Superheater support. No. 1,416,835; May 23.
Keesing, Isäac, Jr., Amsterdam, Netherlands. Sealing apparatus. No. 1,416,836; May 23.
Kehoe, Thomas J., assignor to The Willys-Overland Company, Toledo, Ohio. Radiator for automobiles. No. 1,416,837; May 23.
Keller, John E., Independence, Kans. Well-casing ripper. 1,417,331; May 23.
Keller, Karl, assignor to J. H. White Manufacturing Company, Brooklyn, N. Y. Alarm for automobile radiators. No. 1,417,332; May 23.
Kelley, Emmor H., and G. A. Stewart, Jr., South Brownsville, Pa. Portable crane. No. 1,416,958; May 23.
Kelly, Robert E., Jacksonville, Fla. Back brace. No. 1,417,250; May 23.
Kelsey, Jesse E., Theresa, N. Y. Direction indicator. No. 1,417,251; May 23.
Kelsey Wheel Company. (See Batie, Joseph E., assignor.)
Kelvinator Corporation. (See Dennedy, James H., assignor.)
Kelvinator Corporation. (See Kolbe, F. H., and De Luiz, assignors.)
Kendall, William G., Newark, N. J. Vanity case. No. 1,417,333; May 23.
Kennedy, John L. (See Hopkins, Morton K., assignor.)
Kern, Ora A. (See Ellis, J. T., and Kern.)
Kerr, James M., Crawfordsville, Ind. Shock absorber. No. 1,417,175; May 23.
Kerr, James M., Crawfordsville, Ind. Shock absorber. No. 1,417,176; May 23.
Kerr, James M., Crawfordsville, Ind. Shock absorber. No. 1,417,177; May 23.
Kerr, James M., Crawfordsville, Ind. Shock absorber. No. 1,417,178; May 23.

Kerr, James M., Crawfordsville, Ind. Shock absorber. No. 1,417,179; May 23.
Kester, Malcolm R., Chicago, Ill. Cam-holder frame. No. 1,416,959; May 23.
Keyzer, Joseph N. M., Lynchburg, Va. Lawn mower. No. 1,417,252; May 23.
Kibler, John, Jr., assignor of one-half to H. E. De Witt, Walla Walla, Wash. Folding camp bed. No. 1,417,253; May 23.
Kiesel, William F., Jr., Altoona, Pa. Locomotive. No. 1,416,717; May 23.
Kiesel, William F., Jr., Altoona, Pa. Locomotive. No. 1,416,718; May 23.
Kimball, Matthew D., assignor of one-half to D. P. Feder, Omaha, Nebr. Nut lock. No. 1,417,334; May 23.
Kindervater, Julius. (See Lassiter, C. K., and Kindervater.)
King Automatic Trolley Co. (See Trew, Thomas J., assignor.)
King, Bert W., Detroit, Mich. Scale. No. 1,416,719; May 23.
Kingsbury, Albert, Pittsburgh, Pa. Bearing. No. 1,417,072; May 23.
Kircher, Charles G. (See Edison, T. A., and Kircher.)
Klausmeyer, David C., Cincinnati, assignor to The Cincinnati Bickford Tool Company, Oakley, Cincinnati, Ohio. Safety lifting jack. No. 1,417,254; May 23.
Kline Engineering Company, The. (See Kline, Walter, assignor.)
Kline, Walter, assignor to The Kline Engineering Company, Chillicothe, Ohio. Method and apparatus for manufacturing tires. No. 1,417,180; May 23.
Kline, William F. (See Baugher, J., and Kline.)
Klise, Earl L., Le Mars, Iowa. Starter for internal-combustion engines. No. 1,416,720; May 23.
Klumpp, August F., et al. (See Charlton, Robert W., assignor.)
Knott, Clyde L., Beverly, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J. Press. No. 1,416,721; May 23.
Knowles, Harford C., assignor to The Willys-Morrow Company, Elmira, N. Y. Antifriction bearing. No. 1,416,838; May 23.
Knowles, Madison M., and J. N. Bates, Fort Branch, Ind. Tractor hitch. No. 1,417,335; May 23.
Kohn, Leo M., New York, N. Y. Combined ironing and folding machine. No. 1,417,255; May 23.
Kokoval, Lawrence, Dante, Va. Vehicle chassis and spring. No. 1,417,256; May 23.
Kolb, Louis M., Philadelphia, Pa. Auto signal. No. 1,417,388; May 23.
Kolbe, Frederick H., and E. R. De Luiz, Detroit, Mich., assignors to Kelvinator Corporation, Wilmington, Del. Thermostat. No. 1,416,722; May 23.
Kölsch, Reinhard, assignor to Firm of Louis Kuppenheim, Pforzheim, Germany. Machine for the manufacture of ringlet mesh or net work. No. 1,417,257; May 23.
Kraffi, Emil, Baltimore, Md. Knife. No. 1,416,723; May 23.
Kramer, Andrew A. (See Livengood, Winfield S., assignor.)
Kranz, Harry W., and J. Lukes, assignors to The Hydraulic Pressed Steel Company, Cleveland, Ohio. Clamp for welding-machine attachments. No. 1,416,839; May 23.
Kraut, Max, Los Angeles, Calif. Liquid-feeding apparatus. No. 1,416,840; May 23.
Kretschmar, Karl A., Palmer, Mass. Aeronautical compass. No. 1,416,841; May 23.
Krider, George E., Duncanville, assignor to McLanahan Stone Machine Co., Hollidaysburg, Pa. Stone crusher. No. 1,417,389; May 23.
Kromm, Georg, Stuttgart, Germany. Typewriting machine. No. 1,416,842; May 23.
Kruesheld, Henry, assignor to The Perfection Electric Products Co., New Washington, Ohio. Electric heater. No. 1,417,073; May 23.
Krueshеld, Henry, assignor to The Perfection Electric Products Co., New Washington, Ohio. Electrically-heated cooking utensil. No. 1,417,074; May 23.
Krumsick, William H., Spokane, Wash. Wrench. No. 1,417,390; May 23.
Kuczkowski, Joseph, Bay City, Mich. Door latch. No. 1,417,391; May 23.
Kuhn, George W., Brooklyn, N. Y., assignor to American Telephone and Telegraph Company. Telephone circuits. No. 1,416,724; May 23.
Kuhn, Warner. (See Kuhne, Paul, assignor.)
Kuhne, Paul, Chicago, Ill., assignor of one-half to W. Kuhn, Birmingham, Ala. Radiator for motor vehicles. No. 1,417,466; May 23.
Kuppenheim, Firm of Louis. (See Kölsch, Reinhard, assignor.)
Labonté, Joseph, Blaisville, Quebec, Canada. Cutting tool. No. 1,416,843; May 23.
La Cour, Dan, Charlottenlund, near Copenhagen, and C. V. Schou, Copenhagen, Denmark. Production of heat and its application for heating liquids and other purposes. No. 1,417,075; May 23.
Ladd, Earnest W., assignor to E. V. George, New York, N. Y. Record-filing rack. No. 1,417,471; May 23.
Ladisch, Karl, Meissen, Germany. Drier. No. 1,416,960; May 23.
Laffey, William J. (See Grace, E. B., and Laffey.)
La France, Richard, assignor to The Owens Bottle Company, Toledo, Ohio. Means for guiding molten glass. No. 1,416,725; May 23.
Lambert, Albert L., Narbeth, Pa., and A. Bell, Philadelphia, Pa., assignors to American Motor Body Corp., Philadelphia, Pa. Windshield. No. 1,417,076; May 23.
Laminated Shim Company. (See Darrach, Bradford, Jr., assignor.)
Lancaster, Sidney D. (See Vogt, H. C., Boby, and Lancaster.)
Lander, Samuel, Sutersville, Pa. Toy gun. No. 1,417,392; May 23.
Landgraf, Frederick K., assignor to Flannery Bolt Company, Pittsburgh, Pa. Metal-drilling machine. No. 1,417,181; May 23.
Landis Tool Company. (See Stoner, Paul, assignor.)
Landon, W. P., et al. (See Hahn, Frank R., assignor.)
Landrum, Francis H., and A. N. Cramer, assignors to The Wedoit Company, Columbus, Ohio. Sterilizing apparatus. No. 1,417,182; May 23.
Langton, Vera F., and J. J. Underwood, New York, N. Y. Print-washing device. No. 1,417,077; May 23.
Larsen, Edward A., Larkspur, Calif., assignor to himself, J. D. Whalen, A. J. Bowie, and E. N. Richardson, trustees, San Francisco, Calif. Mold for casting concrete hulls. No. 1,416,844; May 23.
La Societe Metallurgique Du Frayol. (See Du Nolly, Hector, assignor.)
Lassiter, Columbus K., and J. Kindervater, New York, N. Y. Making return bends. No. 1,417,393; May 23.
Lassiter, Columbus K., and J. Kindervater, New York, N. Y. Die for making return bends. No. 1,417,394; May 23.
Lassiter, Columbus K., and J. Kindervater, New York, N. Y. Connecting pipes and return bends. No. 1,417,395; May 23.
Lassiter, Columbus K., and J. Kindervater, New York, N. Y. Return bend and method and apparatus for making same. No. 1,417,396; May 23.
Lattanzi, Ferdinando. (See Avolio, V., and Lattanzi.)
Laughlin, Homer, Jr. (See Briden, Charles G., assignor.)
Lavigne, Napoleon G., Virginia, Minn. Oxyacetylene lighter. No. 1,416,845; May 23.
Lawton, Charles L., Hancock, Mich. Scraper. No. 1,417,183; May 23.
Lea, Charles, assignor, by mesne assignments, to Shawmut Engineering Company, Boston, Mass. Pattern mechanism. No. 1,417,078; May 23.
Lebzelter, William F., assignor, by mesne assignments, to E. M. Miller, Elizabethtown, Pa. Electric heating device. No. 1,417,079; May 23.
Leddy, John F., Hoboken, N. J. Plumber's soil. No. 1,417,258; May 23.
Lederer, Eugene H., State College, Pa. Game. No. 1,417,336; May 23.
Lee, John L. (See Harris, Oliver H., assignor.)
Leedy, Walter L., Youngstown, Ohio. Damper-control device. No. 1,417,259; May 23.
Le Fevre, George A., Richmond Hill, assignor to Baxflat Barrel & Crate Corporation, New York, N. Y. Knock-down barrel. No. 1,417,337; May 23.
Leighton, John W., assignor to Pressed Metals Company of Canada Limited, Toronto, Ontario, Canada. Manufacturing bushings and similar articles. No. 1,416,846; May 23.
Lenahan, John E., Newburgh, N. Y. Wrench. No. 1,417,338; May 23.
Lenders, Adolph W. H., and P. W. Allen, Cedar Rapids, Iowa, assignors, by mesne assignments, to Penick & Ford, Ltd., Incorporated. Manufacture of cornstarch and products therefrom. No. 1,417,467; May 23.
Lenton, Frank, New York, N. Y. Record disk. No. 1,417,339; May 23.
Letmolee, Gust, Kandahar, Saskatchewan, Canada. Safety pin. No. 1,417,080; May 23.
Lewis, Arthur J., Stratford, assignor to The Baird Machine Company, Bridgeport, Conn. Metal-forming machine. No. 1,417,397; May 23.
Lewis, John, and S. Davies, Briton Ferry, Wales. Indicator. No. 1,416,847; May 23.
Lewis, John M. B., Lynchburg, Va. Stanchion support. No. 1,417,184; May 23.
Lhermitte, Georges, Nantes, France. Motion-transmitting apparatus. No. 1,417,398; May 23.
Lightfield, John M., Chicago, Ill. Welding hood. No. 1,416,848; May 23.
Lightoiler Company. (See Dahl, Thure, assignor.)
Lindroos, John H., Brooklyn, N. Y. Ship structure. No. 1,417,260; May 23.
Lindsey, Horace W., Atlanta, Ga. Emergency structure for railway cars. No. 1,417,185; May 23.
Lindstrom, Nils J., Evansville, Minn. Nonskid-tire grip. No. 1,417,186; May 23.
Litrem, André P., Paris, France. Permutation lock for automobiles. No. 1,417,340; May 23.
Livengood, Winfield S., assignor to A. A. Kramer, Kansas City, Mo. Equalizing hoist. No. 1,417,187; May 23.
Locomotive Stoker Company. (See Hogg, Francis, assignor.)
Loop, C. H., Steel Manufacturing Company. (See Loop, Charles H., assignor.)
Loop, Charles H., Pawhuska, Okla., assignor to C. H. Loop Steel Manufacturing Company. Tank. No. 1,416,849; May 23.

Loop, Leonard, Tulsa, Okla. Safety hook. No. 1,416,961; May 23.
Lorenz, Oswald, New York, N. Y. Phonograph-record cabinet. No. 1,417,188; May 23.
Luckenbach Processes, Inc. (See Luckenbach, Royer, assignor.)
Luckenbach, Royer, Brooklyn, N. Y., assignor to Luckenbach Processes, Inc., San Francisco, Calif. Concentrating ores. No. 1,417,261; May 23.
Luckenbach, Royer, Brooklyn, N. Y., assignor to Luckenbach Processes, Inc., San Francisco, Calif. Concentration of ores. No. 1,417,262; May 23.
Luckenbach, Royer, Brooklyn, N. Y., assignor to Luckenbach Processes, Inc., San Francisco, Calif. Concentration of ores. No. 1,417,263; May 23.
Lukes, John. (See Kranz, H. W., and Lukes.)
Luttmann, Joseph, assignor to The Mendel-Drucker Company, Cincinnati, Ohio. Trunk lock. No. 1,417,264; May 23.
Lyon, Harry. (See Barbour, P. E., and Lyon.)
Lyon Metallic Manufacturing Company. (See O'Connor, John B., assignor.)
McCall Company, The. (See Hutter, Francis, assignor.)
McCarthy, Joseph B., Copper Cliff, Ontario, Canada. Concentrator. No. 1,417,189; May 23.
McClaire, Katherine, Chicago, Ill. Curler. (Reissue.) No. 15,363; May 23.
McClarran, George T., Greensburg, Pa. Gear remover or pinion puller. No. 1,417,265; May 23.
McConnell, Walter B., Philadelphia, Pa. Ink-bottle holder. No. 1,417,081; May 23.
McCreary, Gilbert A., Edinburg, Pa. Wheeled toy. No. 1,417,190; May 23.
McCurry, James M., San Luis Obispo, Calif. Hollow concrete wall block construction. No. 1,417,399; May 23.
McDill, Rex D. O., Haines City, Fla., assignor to W. E. Richardson, Beaufort, S. C. Fruit cleaning and brushing machine. No. 1,417,266; May 23.
McDougal, Taine G., assignor to Champion Ignition Company, Flint, Mich. Burning ceramic wares and apparatus therefor. No. 1,416,726; May 23.
McDougal, Taine G., assignor to Champion Ignition Company, Flint, Mich. Burning ceramic wares. No. 1,416,727; May 23.
McElroy, William A., San Francisco, Calif. Attachment for artificial arms. No. 1,417,267; May 23.
McGarrahan, John F., Congress Park, assignor to J. S. Giles & Sons, Chicago, Ill. Double-seal spring cap. No. 1,417,341; May 23.
McGarvin, Edgar, Los Angeles, Calif. Illuminated license plate. No. 1,417,400; May 23.
McGovern, Daniel F., Montpelier, Vt. Emery ring. No. 1,416,728; May 23.
McGovern, Daniel F., Montpelier, Vt. Polishing wheel. No. 1,416,729; May 23.
McGrane, Rebecca, et al. (See Tracy, Laurence J., assignor.)
McIntyre, Dallas, assignor of one-half to W. J. Stone, Horton, Kans. Coach ventilator. No. 1,417,268; May 23.
McIntyre, William H., et al. (See Moodie, Robert P., assignor.)
McLanahan Stone Machine Co. (See Krider, George E., assignor.)
McLaren, Alexander. (See Sharp, Lee C., assignor.)
McLaughlin, William J., Owatonna, Minn. Ice-cream overrun tester. No. 1,416,730; May 23.
McMurry, Walter J. (See Adams, John Q., assignor.)
McNamara, Grace E., Plymouth, Ind. Corset clasp. No. 1,416,850; May 23.
McNamara, Vincent J., New York, N. Y. Fountain shaving brush. No. 1,417,082; May 23.
McNeil, Alfred H., Chingford, England. Thermostatic regulating or controlling apparatus. No. 1,416,851; May 23.
Mackenzie, Duncan G. (See Wellington, J. M., and Mackenzie.)
MacLachlan, John C., St. Paul, Minn. Reducing semifluid food substances to dry powdered form. No. 1,417,083; May 23.
MacNicoll, Donald. (See Cockburn, D., and MacNicoll.)
MacMichael, Alexander, and C. Schink, Ashland, Ky. Means for casting ingots. No. 1,417,269; May 23.
Mader, Joseph, assignor, by mesne assignments, to Beeman Tractor Company, Minneapolis, Minn. Steering-post support for traction machines. No. 1,417,270; May 23.
Maer, Morris, Brooklyn, N. Y. Means for manipulating collapsible tubular containers. No. 1,417,271; May 23.
Magnus, Gustaf W., Seattle, Wash. Waterproofing composition. No. 1,416,852; May 23.
Mahoney, Clarence, assignor to G. I. Sellers and Sons Company, Elwood, Ind. Kitchen cabinet. No. 1,417,401; May 23.
Maier, Frank X., Sterling, Ill. Spring hinge. No. 1,417,084; May 23.
Maine, Roy D., Cheyenne, Wyo. Potato slicer and shredder. No. 1,416,853; May 23.
Malt, Charley, Irwin, Pa. Mine-car wheel. No. 1,417,085; May 23.
Maness, Arthur R., St. Louis, Mo. Nutcracker. No. 1,417,272; May 23.
Mangold, Charles N., Pittsburgh, Pa. Piano. No. 1,417,191; May 23.
Mansfield Lamp and Manufacturing Company, The. (See Wood, Arthur C., assignor.)
Marquez, Jose S., Capulin, assignor of one-third to J. L. Rivera, La Jara, Colo. Seed-potato cutter. No. 1,417,273; May 23.
Marsh, Clifford W., Bridgeport, Conn. Typewriting machine. No. 1,417,472; May 23.
Martin, Friedrich, Essen, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. By-pass system for piston pumps. No. 1,416,731; May 23.
Martin, Jesse C., Jr., San Francisco, Calif. Plug cock. No. 1,416,732; May 23.
Martin, John, and F. H. Clough, Rugby, England, assignors to General Electric Company. Electric ship propulsion. No. 1,417,342; May 23.
Maschinen- & Metallwarenfabrik G. m. b. H. (See Poudorf, Paul, assignor.)
Mason, Arthur C., Flint, assignor to General Motors Corporation, Detroit, Mich. Steering gear and fuel tank support. No. 1,417,192; May 23.
Mason, Percy G., assignor to Newman & Guardia, Limited, London, England. Reflex photographic camera. No. 1,416,854; May 23.
Massarella, John, Cincinnati, Ohio. Confectionery-coating machine. No. 1,417,086; May 23.
Mathes, Peter, Chicago, Ill. Radiator construction. No. 1,417,087; May 23.
Mathews, Peyton L., Baton Rouge, La. Railway. No. 1,417,088; May 23.
Mathieu, Durand et Cie. (See Vindrier, Stephane L. J., assignor.)
Matson, David E., St. Paul, assignor to W. A. Carlson, Minneapolis, Minn. Hospital screen. No. 1,416,733; May 23.
Mattern, David L., New York, N. Y., assignor to Columbia Graphophone Manufacturing Company, Bridgeport, Conn. Winding device. No. 1,417,402; May 23.
Maytag Company, The. (See Dremel, Albert J., assignor.)
Mechau, Emil, Rastatt, Germany. Illuminating device for moving-picture apparatus. No. 1,417,089; May 23.
Meeks, Fred, Los Angeles, Calif. Soap holder. No. 1,416,962; May 23.
Megathlin, Ralph S., Somerville, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J. Model making. No. 1,417,274; May 23.
Mellage, Charles M., St. Louis, Mo. Sole-tempering box. No. 1,417,090; May 23.
Mendel-Drucker Company, The. (See Luttmann, Joseph, assignor.)
Metcalfe, Robert F., Erie, Pa. Burner. No. 1,416,734; May 23.
Meyers, John M., Janesville, Wis., assignor to General Motors Corporation, Detroit, Mich. Tractor. No. 1,417,193; May 23.
Meyers, John W., Elyria, Ohio. Reversible interchangeable rubber heel. No. 1,417,275; May 23.
Michalek, John, Chicago, Ill. Lock. No. 1,416,855; May 23.
Michalicek, Fred, Ely, Iowa. Musical toy. No. 1,417,343; May 23.
Miller, Earl M. (See Lebzelter, William F., assignor.)
Miller, Earl M. (See Stehman, Paul K., assignor.)
Miller, Edward C., Williamsport, Pa. Liquid dam preparation. No. 1,417,091; May 23.
Miller, William J. (See Frayer, L. A., and Miller.)
Mills, H. S. (See Sandell, Henry K., assignor.)
Mitzel, Harvey F., Providence, R. I., assignor to The Revere Rubber Company. Fuse-cap protector. No. 1,416,856; May 23.
Mock, Frank C., assignor to The Stromberg Motor Devices Company, Chicago, Ill. Carburetor. No. 1,416,857; May 23.
Mock, Frank C., assignor to Stromberg Motor Devices Company, Chicago, Ill. Carburetor. No. 1,416,858; May 23.
Moeller, Richard, and O. Otterson, Michigan City, Ind. Crude-oil-burning furnace. No. 1,417,092; May 23.
Molyneux, George E., Bayonne, N. J. Stopping mechanism for sewing machines, etc. No. 1,417,093; May 23.
Molyneux, George E., Bayonne, N. J. Wheel lock for quick-detachable wheels. No. 1,417,276; May 23.
Moninger, Annie R., administrator. (See Moninger, Robert D.)
Moninger, Robert D., deceased, Washington, Pa., A. R. Moninger, administrator. Photographic-printing apparatus. No. 1,417,403; May 23.
Monroe, Collier, Waco, Tex. Hair clipper. No. 1,417,094; May 23.
Montonna, Ralph E., Syracuse, assignor to Semet-Solvay Company, Solvay, N. Y. Producing benzyl alcohol. No. 1,416,859; May 23.
Moodie, Robert P., assignor of one-third to W. H. McIntyre and one-third to A. A. Dion, Ottawa, Ontario, Canada. Furnace. No. 1,417,095; May 25.
Moreton, Henry H., Venice, Calif. Electrical heater. No. 1,416,963; May 23.
Moreton, Henry H., Venice, Calif. Electrical heater. No. 1,416,964; May 23.
Moreton, Henry H., Venice, Calif. Electrical heater. No. 1,416,965; May 23.
Morey, Worthie W., Columbus, Ohio. Ventilator. No. 1,417,194; May 23.
Morningstar, J. P. (See Hink, William H., assignor.)
Morris, Edgar L., Charlotte, N. C. Safety driving mirror for automobiles. No. 1,416,966; May 23.

Morris, Frank E., Philadelphia, Pa. Device for forming pastries and the like. No. 1,416,735; May 23.
Morrison, Alfred J., assignor of one-half to W. E. Warneke, Denver, Colo. Machine for gluing box shoulders. No. 1,417,195; May 23.
Moses, Emile, Minneapolis, Minn. Power jack for automobiles. No. 1,416,736; May 23.
Mueller, George, Salt Lake City, Utah. Oven truck. No. 1,417,096; May 23.
Mueller, Henry, Oakland, Calif. Window-screen hinge. No. 1,417,097; May 23.
Mundie, Louis M. (See Ringer, Luther, assignor.)
Munroe, Thomas L., Fall River, Mass. Trap catch. No. 1,416,737; May 23.
Muren, Albert L., Burlington, Iowa. Battery construction. No. 1,416,738; May 23.
Murray, Thomas E. (See Rypinski, Albert B., assignor.) (Reissue.)
Mustonen, Peter, Superior, Wis. Oven. No. 1,417,404; May 23.
Myers, Ernest C. (See Schauer, L. A., and Myers.)
Nasmith, John W., Stockport, England. Combing machine. No. 1,416,739; May 23.
National Carbon Company. (See French, Harry F., assignor.)
National Manufacturing Company, The. (See Schoenwetter, Reinhold D., assignor.)
Neighbour, Leonard B., assignor to Deere & Company, Moline, Ill. Wheel mounting. No. 1,416,740; May 23.
Neiley, Jewett F., Endicott, N. Y. Stamping attachment for hide splitters. No. 1,416,967; May 23.
Nelesen, William, Sheboygan, Wis. Machine for collecting waste metal articles. No. 1,416,860; May 23.
Nelson, Erik W., New Rochelle, N. Y. Shutter mechanism for motion-picture machines. No. 1,417,098; May 23.
Nelson, John, and G. Seeds, Newton, Iowa, assignors to Automatic Electric Washer Co., Inc. Operating mechanism for washing machines. No. 1,417,099; May 23.
Nero, Arvid H., New Britain, assignor to The Arrow Electric Company, Hartford, Conn. Electric switch. No. 1,417,405; May 23.
New Ideal Power Company. (See Eppley, Charles S., assignor.)
New Jersey Patent Company. (See Edison, T. A., and Kircher, assignors.)
Newhall, Henry B. (See Pleister, H. W., and Karitzky, assignors.)
Newhall, Henry B. (See Pleister, Henry W., assignor.)
Newhall, Henry B. (See Sherwood, Daniel R., assignor.)
Newkirk, Perry B., Seattle, Wash., assignor to F. M. Bowden (in trust), Toronto, Ontario, Canada. Motor-vehicle transmission mechanism. No. 1,417,406; May 23.
Newman & Guardia, Limited. (See Mason, Percy G., assignor.)
Newman, Barna, New York, N. Y. Waterproof hat protector. No. 1,417,100; May 23.
Newman, Emil, Fessenden, N. Dak. Hitch. No. 1,417,344; May 23.
Nicholls, John S. C., Boston, and M. W. Smith, Somerville, Mass. Exercising apparatus. No. 1,416,741; May 23.
Nielsen, Simon. (See Turk, W. F., and Nielsen.
Nihon Denki Kogijo Kabushiki Kaisha. (See Yanai, Teizo, assignor.)
Nolting, Philip H., St. Louis, Mo. Shirt. No. 1,417,101; May 23.
Novak, Joseph, Chicago, Ill. Toothbrush. No. 1,417,407; May 23.
Nutting, William B., Cortland, Oreg. Spark arrester. No. 1,416,968; May 23.
Nydegger, Otto, Bern, and H. Schellenberg, Personico, Switzerland. Producing urea from lime nitrogen. No. 1,417,277; May 23.
Nyman, John O., and J. P. Pearson, Canton, Ohio. Sheet-metal partition. No. 1,417,102; May 23.
Nystrom, Ernest, Oakland, Calif. Motor-vehicle bumper. No. 1,416,861; May 23.
Oakman, Erwin H., Atlanta, Ga. Inkwell. No. 1,416,862; May 23.
O'Banion, Jay I., Seattle, Wash. Oil composition. No. 1,417,103; May 23.
Ochoa, Victor L., El Paso, Tex. Wrench. No. 1,417,196; May 23.
O'Connor, John B., assignor to Lyon Metallic Manufacturing Company, Aurora, Ill. Detachable support. No. 1,416,969; May 23.
Offenhauser, Christopher. (See Hottmann, Charles W., assignor.)
Oldroyd, Fred, Cincinnati, Ohio. Mining and quarrying machine. No. 1,416,742; May 23.
O'Leary, Jennie, administratrix. (See Tracy, Laurence J.)
O'Leary, Jennie, et al. (See Tracy, Laurence J., assignor.)
Olson, John A., Chicago, Ill., assignor to The S-P Manufacturing Company, Cleveland, Ohio. Machine vise. No. 1,416,970; May 23.
Olson, Samuel, & Company. (See Olson, Samuel, assignor.)
Olson, Samuel, assignor to Samuel Olson & Company, Chicago, Ill. Tray elevator. No 1,416,743; May 23.
Ordnance Engineering Corporation. (See Phipps, Walter H., assignor.)
Osborne, Robert E., Hamburg, N. Y. Railway spike. No. 1,416,971; May 23.
Otterson, Oscar. (See Moeller, R., and Otterson.)
Owens Bottle Company, The. (See La France, Richard, assignor.)
Owens Bottle Company, The. (See Press, R. W., and Schwenzfeier, assignor.)
Pachesa, Peter C., Taylor Springs, Ill. Window-screen adjuster. No. 1,417,104; May 23.
Packard Motor Car Company. (See Peterson, Walter C., assignor.)
Pagel, Louis, Forestville, Wis. Gathering and cocking machine. No. 1,416,972; May 23.
Parker, George D., Riverside, Calif. Blotter. No. 1,416,863; May 23.
Parkes, Richard W., San Francisco, Calif. Coaster. No. 1,416,864; May 23.
Patch, William E., St. Louis, Mo. Removing enamel from enameled metal articles. No. 1,416,865; May 23.
Patterson, John, Jr., Aldershot, England. Hose supporter. No. 1,416,866; May 23.
Pearson, John P. (See Nyman, J. O., and Pearson.)
Pease, C. F., Company, The. (See Green, C. A., and Schuh, assignors.)
Penick & Ford, Ltd. (See Lenders, A. W. H., and Allen, assignors.)
Perfection Electric Products Co., The. (See Kruesheld, Henry, assignor.)
Perkins, Floyd R., assignor to Charles H. Fuller Co., Chicago, Ill. Dishwasher. No. 1,416,744; May 23.
Peters, James A., the White House, near Scarborough, England. Motor cycle. No. 1,416,745; May 23.
Peters, Karl R., Philadelphia, Pa. Universal alignment bearing reamer and babbitting bar. No. 1,417,278; May 23.
Peters, Karl R., Philadelphia, Pa. Shim for springs and the like. No. 1,417,279; May 23.
Peterson, Walter C., assignor to Packard Motor Car Company, Detroit, Mich. Gas furnace. No. 1,416,746; May 23.
Philbrook, Joshua M., Scappoose, Oreg. Power-generating system. No. 1,416,867; May 23.
Phillips, Chester. (See Phillips, Homer L., assignor.)
Phillips, Homer L., assignor of one-third to C. Phillips, South Bend, Ind. Flushing tank. No. 1,417,280; May 23.
Phipps, Walter H., assignor to Ordnance Engineering Corporation, New York, N. Y. Chassis structure for airplanes. No. 1,416,747; May 23.
Pickard, J. F. (See Harris, H. E., and Swain, assignors.)
Piersen, Edwin H., Topeka, Kans. Circuit making and breaking device. No. 1,416,973; May 23.
Piersen Manufacturing Company, The. (See Caps, Arthur W., assignor.)
Piersen Manufacturing Company, The. (See Cushman, Everett B., assignor.)
Pietszak, Stanly P., Buffalo, N. Y. Spark plug. No. 1,416,868; May 23.
Pigg, Edward E., Weatherford, Okla. Double-action pump. No. 1,417,105; May 23.
Pimienta, Alfredo, New York, N. Y. Denture and application. No. 1,417,345; May 23.
Piper, Frank R., Fairfax, Ala. Roller. No. 1,416,748; May 23.
Piscicelli, Roberto T., Paris, France. Calculating machine. No. 1,416,974; May 23.
Pitman, Henry L., Elizabeth, N. J., assignor to Underwood Computing Machine Company, New York, N. Y. Combined typewriting and computing machine. No. 1,417,106; May 23.
Pitt-Taylor, Francis S., Blackpool, England. Concertina keyboard. No. 1,417,107; May 23.
Pittman, Joseph, Detroit, Mich. Automatic discharge valve. No. 1,416,869; May 23.
Platz, Henry T., assignor to C. M. Hall Lamp Co., Detroit, Mich. Tiltable reflector. No. 1,416,749; May 23.
Pleister, Henry W., Westfield, and J. Karitzky, Garwood, assignors, by mesne assignments, to H. B. Newhall, Plainfield, N. J. Expansion bolt. No. 1,417,198; May 23.
Pleister, Henry W., Westfield, assignor, by mesne assignments, to H. B. Newhall, Plainfield, N. J. Expansion shield. No. 1,417,197; May 23.
Polidoro, Dominick. (See Ciotola, J., and Polidoro.)
Pondorf, Paul, Gossnitz, Germany, assignor to the Firm Maschinen- & Metallwarenfabrik G. m. b. H., Berlin, Germany. Method and apparatus for rolling in the neck in press-button parts or the like. No. 1,417,199; May 23.
Popin, Ziva, New York, N. Y. Heater for waving hair. No. 1,416,750; May 23.
Possons, Minard A., Cleveland, Ohio. Safety device for presses. No. 1,417,346; May 23.
Power Specialty Company. (See Foster, Ernest H., assignor.)
Power Specialty Company. (See Keenan, Walter F., Jr., assignor.)
Presby, Leroy Q., Boston, Mass., assignor to Globe Optical Company. Lens-cutting machine. No. 1,417,468; May 23.
Press, Reece W., and C. W. Schwenzfeier, Glassboro, N. J., assignor to The Owens Bottle Company, Toledo, Ohio. Electrical recording apparatus. No. 1,416,751; May 23.
Pressed Metals Company of Canada Limited. (See Leighton, John W., assignor.)
Price, Frank J., Brooklyn, and M. W. Gallaway, New York, N. Y. Hair-cutting device. No. 1,417,200; May 23.
Price, William R. (See Diesel, W. F., and Price.)

Priluker, Max, New York, N. Y. Mask. No. 1,417,201; May 23.
Proctor, Benjamin, Jr., Wellesley Hills, Mass. Picture frame. No. 1,417,108; May 23.
Pugh, Charles H. Limited. (See Bull, George F., assignor.)
Pugh, George W., Leona Mines, Va. Wire connector. No. 1,417,408; May 23.
Pullar, James, Hartford, Conn. Dump wagon. No. 1,416,975; May 23.
Puls, Julius, Eagle Grove, Ia. Friction heating apparatus for polishing wheels. No. 1,417,202; May 23.
Putnam, Charles M., Alma, Mich. Corn stringer. No. 1,416,752; May 23..
Putnam, James R., assignor to Waterbury Clock Co., Waterbury, Conn. Intermittent-alarm clock movement. No. 1,416,870; May 23.
Pyle, Benjamin F., assignor to The Pyle Metallurgical Company, Denver, Colo. Flux. No. 1,416,871; May 23.
Pyle Metallurgical Company, The. (See Pyle, Benjamin F., assignor.)
Q. R. S. Music Company. (See Spence, T. H., and Turnell, assignors.)
Quain, John R., London, England. Electric heater. No. 1,416,872; May 23.
Rader, Cranston B. (See Howell, W. Q., and Rader.)
Rains, Solomon B., Brooklyn, N. Y. Making stockings. 1,417,347; May 23.
Ralph, Thomas L., Bridgeport, Conn., assignor, by mesne assignments, to H. Bobker, New York, N. Y. Electrical water heater. No. 1,417,409; May 23.
Ram, John H., Jersey City, N. J., assignor of one-half to E. E. Elder, Brooklyn, N. Y. Oil and grease deflector. No. 1,417,410; May 23.
Randall, Alonzo U., Springfield, Ohio. Alloy. No. 1,417,348; May 23.
Rappez, Nicolas, Haine St. Pierre, Belgium. Molding machine. No. 1,416,976; May 23.
Ray, Albert D., Cleveland, Ohio. Tractor. No. 1,416,753; May 23.
Ray, George W., Atlantic City, N. J. Automobile and motor-cycle tires. No. 1,416,873; May 23.
Redford, John E., Kinloch Park, assignor to The American Brake Company, St. Louis, Mo. Brake-lever connection. No. 1,417,203; May 23.
Reeves, George R., Chicago, Ill. Miter clamp. No. 1,416,874; May 23.
Reichl, Joseph, assignor to Dean Hotel Company, Kansas City, Mo. Display window. No. 1,416,875; May 23.
Reno, Jesse W., New York, N. Y. Device for raising sunken vessels. No. 1,416,754; May 23.
Replogle, Daniel B., Berkeley, Calif. Dust collector for pneumatic cleaners. No. 1,416,876; May 23.
Revell, Leonel F. (See Dages, Louis P., assignor.)
Revere Rubber Company, The. (See Mitzel, Harvey F., assignor.)
Revolvator Company. (See Boehck, William E., assignor.)
Reynolds, Charles B. and C. D., Whittier, Calif. Tool-joint lock. No. 1,417,411; May 23.
Reynolds, Clarence D. (See Reynolds, Charles B. and C. D.)
Rhodes, Charles J., and T. H. Webb, Wakefield, England. Press for operating upon metal and other sheets. No. 1,416,877; May 23.
Rhodes, Russell I. (See Simmons, P. T., and Rhodes.)
Richard, Joseph C., New York, N. Y. Medicine and hygienic food. No. 141,412; May 23.
Richardson, E. N., et al., trustees. (See Larsen, Edward A., assignor.)
Richardson, Walter E. (See McDill, Rex D., assignor.)
Riggs, Henry H., Boston, Mass. Speed indicator. No. 1,417,204; May 23.
Ring, John. (See Heath, Ralph D., assignor.)
Ringer, Luther, assignor of one-half to L. M. Mundie, Eden, N. Y. Shaft casing. No. 1,417,349; May 23.
Rivera, Luis J. (See Marquez, Jose S., assignor.)
Robinson, Edwin L., assignor of one-half to H. J. Spooner, Providence, R. I. Swivel for watch chains and the like. No. 1,417,281; May 23.
Robinson, Ellyson S., and J. Bowers, Richmond, Va. Trolley wheel. No. 1,417,350; May 23.
Roddy, Gustav R., assignor to Chain Belt Company, Milwaukee, Wis. Liquid-screening apparatus. No. 1,417,205; May 23.
Rodger Ballast Car Company. (See Hindahl, David, assignor.)
Rondelli, Tito, Turin, and Q. Sestini, Bargamo, Italy, assignor of one-third to Sestron (Foreign Patents,) Limited, London, England. Coloration of metallic surfaces. No. 1,417,413; May 23.
Roof, Robert M., Anderson, Ind. Internal-combustion engine. No. 1,416,977; May 23.
Rose, Nancy A., Republic, Wash. Pancake iron. No. 1,417,351; May 23.
Rosenthal, Rubin, Brooklyn, N. Y. Ring and plate therefor. No. 1,417,352; May 23.
Ross, Arthur G., Vancouver, British Columbia, Canada. Refrigerating machine. No. 1,416,878; May 23.
Rousseau, Jean F. R., Indianapolis, Ind. Making composite metal articles. No. 1,416,879; May 23.
Rutherford, Nealon D., Lansing, Mich., assignor to United Engine Company. Milking machine. No. 1,416,880; May 23.
Ruzicka, Frank L., St. Louis, Mo. Stake lock. No. 1,416,881; May 23.
Rynearson, Eugene, Dallas, Tex. Lock for meter boxes. No. 1,416,978; May 23.
Rynerson, Fred J., San Diego, Calif. Ladder foot. No. 1,417,353; May 23.
Rypinski, Albert B., Brooklyn, assignor to T. E. Murray, New York, N. Y. Electrical riveting. (Reissue.) No. 15,364; May 23.
S-P Manufacturing Company, The. (See Olson, John A., assignor.)
Samuels, B. F. (See Green, James F., assignor.)
Sandals, Nathan, Jersey City, N. J. Chiropractic sanitary paper container. No. 1,416,882; May 23.
Sandell, Henry K., assignor to H. S. Mills, Chicago, Ill. Phonograph drive mechanism. No. 1,417,109; May 23.
Sander, Jacob C., Lynn, assignor to Thomson Spot Welder Company, Boston, Mass. Spot welding. No. 1,416,883; May 23.
Sanders, Louis J., Takoma Park, Md. Protector. No. 1,417,414; May 23.
Sargent and Greenleaf, Inc. (See Diesel, W. F., and Price, assignors.)
Saris, Joseph H., Beloit, Wis. Brake or clutch lining. No. 1,416,979; May 23.
Sarlls, Theodore, Sanders, Ky., assignor of forty-nine per cent to T. E. Weldon, Sparta, Ky. Pumping apparatus for cisterns. No. 1,417,415; May 23.
Sauvage, Norman J., Flushing, N. Y. Automatic slack adjuster. No. 1,416,980; May 23.
Schauer, Leo A., and E. C. Myers, Pittsburgh, Pa. Surfacing machine for commutators. No. 1,416,981; May 23.
Schellenberg, Henry. (See Nydegger, O., and Schellenberg.)
Schink, Charles. (See MacMichael, A., and Schink.)
Schlais, Frederick, Brooklyn, N. Y. Window hinge. No. 1,417,110; May 23.
Schlesinger, Sigmund, New York, N. Y. Talking machine. No. 1,417,111; May 23.
Schmid, Albert W., Basel, Switzerland. Weighting or charging silk to be dyed black. No. 1,417,206; May 23.
Schmid, Herman. (See Fuegel, G., and Schmid.)
Schmidt, Benjamin F., and T. D. Heyl, Los Angeles, Calif. Car pusher. No. 1,416,755; May 23.
Schmidt, Henry A., Phoebus, Va. Fastening device. No. 1,416,756; May 23.
Schmidt, Henry F., Swarthmore, Pa., assignor to Westinghouse Electric and Manufacturing Company. Lubricating journal bearing. No. 1,416,884; May 23.
Schoenwetter, Reinhold D., assignor, by mesne assignments, to The National Manufacturing Company, Baltimore, Md. Cigar-banding machine. No. 1,416,982; May 23.
Schoenwetter, Reinhold D., assignor, by mesne assignments, to The National Manufacturing Company, Baltimore, Md. Cigar-banding machine. No. 1,416,983; May 23.
Schoenwetter, Reinhold D., assignor, by mesne assignments, to The National Manufacturing Company, Baltimore, Md. Coating machine. No. 1,416,984; May 23.
Schoenwetter, Reinhold D., assignor, by mesne assignments, to The National Manufacturing Company, Baltimore, Md. Sheet-feeding machine. No. 1,416,985; May 23
Schoppe, Carl W., Portland, Oreg. Automobile accessory. No. 1,417,416; May 23.
Schou, Cecil V. (See La Cour, D., and Schou.)
Schreiner, Andrew J., Cleveland, Ohio. Reserve-supply-controlling device for liquid receptacles. No. 1,416,885; May 23.
Schreiner, Andrew J., Cleveland, Ohio. Reserve-supply-controlling device for liquid receptacles. No. 1,416,886; May 23.
Schuh, Henry F. (See Green, C. A., and Schuh.)
Schumacher, John, Los Angeles, Calif. Covering for joints of wall board. No. 1,416,888; May 23.
Schutt, Duny A., Janesville, Wis., assignor to General Motors Corporation, Detroit, Mich. Disk-adjusting mechanism for agricultural implements. No. 1,417,207; May 23.
Schwenzfeier, Charles W. (See Press, R. W., and Schwenzfeier.)
Scintilla. (See Bohli, Jacques, assignor.)
Scott, James G., Washington, D. C. Burner for gas stoves. No. 1,416,887; May 23.
Scott, William H., Goffs, Kans. Wrench. No. 1,417,354; May 23.
Sears, Roebuck and Co. (See Bohmker, John C., assignor).
Sears, Roebuck and Co. (See Hoffman, Rudolph, assignor.)
Seeds, George. (See Nelson, J., and Seeds.)
Seely, Thomas H., Dorchester, and R. C. Simmons, Beverly, Mass., assignors, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Welt grooving and beveling machine. No. 1,416,757; May 23.
Seewagen, Phillip A., Los Angeles, Calif. Press. No. 1,417,417; May 23.
Selden, James M. (See Conover, C., and Gibbs, assignors.)
Sella, Edward J., Jewell, Iowa. Steering device. No. 1,416,986; May 23
Sellers, G. I., and Sons Company. (See Mahoney, Clarence, assignor.)

Semet-Solvay Company. (See Montonna, Ralph E., assignor.)
Senio, John, Southington, Conn. Milk-bottle cover. No. 1,417,282; May 23.
Shepard, Frederick G., Peckham, London, England. Printer's type gauge. No. 1,417,208; May 23.
Sestini, Quirino. (See Rondelli, T., and Sestini.)
Sestron Foreign Patents, Limited. (See Rondelli, T., and Sestini, assignors.)
Sharp, Lee C., Plattsmouth, Nebr., assignor, by mesne assignments, to A. McLaren, Dayton, Ohio. Method and means for making cup pastry. No. 1,416,889; May 23.
Sharpe, Frank H., Dorchester, Mass. Divider. No. 1,416,987; May 23.
Sharples, Philip T., St. Davids, Pa. Refining petroleum. No. 1,416,890; May 23.
Sharples, Philip T., Merion, Pa. Refining oil. No. 1,416,891; May 23.
Shawmut Engineering Company. (See Lea, Charles, assignor.)
Sherwood, Charles F., Los Angeles, Calif. Bearing. No. 1,416,988; May 23.
Sherwood, Daniel R., assignor to H. B. Newhall, Plainfield, N. J. Expansion bolt. No. 1,417,209; May 23.
Shields, Lowell W., assignor to Hickok Manufacturing Company, Inc., Rochester, N. Y. Belt buckle. No. 1,416,892; May 23.
Shirk, Abner, Decatur, Ill. Wrench. No. 1,417,210; May 23.
Shockey, Eli G., Sand Patch, Pa. Draft appliance. No. 1,417,112; May 23.
Shorter, Wily B., Freedom, assignor to E. G. Evans, Hillsdale, Okla. Clutch control for Fordson tractors. No. 1,416,893; May 23.
Shurick, Edward P., Knoxville, Tenn. Combined letter and envelope stuffer or the like. No. 1,417,211; May 23.
Sieber, Gottwalt, Plauen, Germany. Device for driving the scallop mechanism in embroidering machines. No. 1,416,894; May 23.
Silva, Antone J., Milton, Calif. Implement steering attachment for tractors. No. 1,416,989; May 23.
Silverman, Charles, Providence, R. I. Lingerie clasp. No. 1,416,758; May 23.
Simon, Maurice, St. Louis, Mo. Electric heater. No. 1,416,897; May 23.
Simmons, Parker T., and R. I. Rhodes, North Attleboro, Mass. Spring-hinge construction. No. 1,416,895; May 23.
Simmons, Peter C., Buffalo, Minn. Vehicle support. No. 1,416,896; May 23.
Simmons, Ralph C. (See Seely, T. H., and Simmons.)
Simplex Metal Feeder Company. (See Zenke, Henry C., assignor.)
Simplex Wire Wheel Company. (See Van Meter, Morton, assignor.)
Simpson, James P., New York, N. Y. Piston packing. No. 1,417,355; May 23.
Sinclair, Alfred J., Dayton, Ohio. Clarinet barrel. No. 1,416,898; May 23.
Singer Manufacturing Company, The. (See De Leeuw, Adolph L., assignor.)
Singer Manufacturing Company, The. (See Thomas, C. W., and Somers, assignors.)
Singer Manufacturing Company, The. (See De Voe, Albert H., assignor.)
Sirch, Charles W., Los Angeles, Calif. Purifying liquids. No. 1,416,899; May 23.
Skinner, Fred A. C., St. Louis, Mo. Air-heating stove. No. 1,416,900; May 23.
Slick, Edwin E., Johnstown, Pa. Rail anchor. No. 1,417,473; May 23.
Sloan, Clark, East Cleveland, Ohio. Eye-testing apparatus and process. No. 1,417,283; May 23.
Smidley, George W., New Holland, Ohio. Hog feeder. No. 1,417,212; May 23.
Smith, Charles H., Short Hills, and E. B. Edwards, East Orange, N. J., assignors to International Coal Products Corporation, Richmond, Va. Furnace retort. No. 1,417,113; May 23.
Smith, Curtis E., St. Joseph, Mo. Miter joint. No. 1,416,901; May 23.
Smith, Curtiss F., Detroit, Mich. Snap drum switch. No. 1,417,284; May 23.
Smith, Elizabeth J., Larchmont, N. Y. Pronged eye fastener. No. 1,416,902; May 23.
Smith, Harry F., Lexington, assignor, by mesne assignments, to The Gas Research Company, Dayton, Ohio. Furnace. No. 1,416,990; May 23.
Smith, Horace L., Prince George County, Va. Corn-husking machine. No. 1,417,356; May 23.
Smith, John F., Wooster, assignor of one-half to C. M. Jeffries, Apple Creek, Ohio. Rotary pump. No. 1,417,418; May 23.
Smith, Martin W. (See Nicholls, J. S. C., and Smith.)
Smith, Raymond G., Moss Beach, Calif. Signaling device. No. 1,417,419; May 23.
Snider, Jasper F., Clare, Mich. Needle. No. 1,417,357; May 23.
Solvay Process Company, The. (See Beacon, Nathaniel T., assignor.)
Somers, Philip W. (See Thomas, C. W., and Somers.)
Sommer, Fred R., Brooklyn, N. Y. Electrometer. No. 1,417,114; May 23.
Southgate, George T., New York, N. Y. High-potential switch. No. 1,417,420; May 23.
Spaulding, Archibald H., Hingham, Mass. Machine for making gelatin films and printing therefrom. No. 1,417,358; May 23.
Spence, Tom H., and J. A. Turnell, assignor to Q. R. S. Music Company, Chicago, Ill. Music-roll-printing machine. No. 1,416,759; May 23.
Spooner, Henry J. (See Robinson, Edwin L., assignor.)
Springfield Metallic Casket Company, The. (See Buckhardt, Jacob R., assignor.)
Stafford, Benjamin E. D., and E. I. Dodds, assignors to Flannery Bolt Company, Pittsburgh, Pa. Stay-bolt structure. No. 1,417,115; May 23.
Stalling, Carl W., Kansas City, Mo. Portfolio for sheet music. No. 1,416,903; May 23.
Stampen, Jacob J. (See Babson, H. B., and Stampen.)
Standard Parts Company, The. (See Swander, Dan C., assignor.)
Standard Parts Company, The. (See Torbensen, Viggo V., assignor.)
Stangeland, Peder O., Los Angeles, Calif. Tool holder. No. 1,416,904; May 23.
Starling, John C., Lethbridge, Alberta, Canada. Ditching device. No. 1,416,991; May 23.
Steatite Electric Products Corporation. (See Fininzio, Thomas D., assignor.)
Steenstrup, Christian, Schenectady, N. Y., assignor to General Electric Company. Elastic-fluid turbine or turbine-driven unit. No. 1,416,760; May 23.
Steerup, Godfrey, Chicago, Ill., assignor to U. S. Light & Heat Corporation, Niagara Falls, N. Y. Storage-battery separator. No. 1,416,761; May 23.
Stehman, Paul K., assignor, by mesne assignments, to E. M. Miller, Elizabethtown, Pa. Electric toaster. No. 1,416,992; May 23.
Stein, Herman A., Georgetown, Minn. Fanning mill. No. 1,417,469; May 23.
Stephens, Thomas S., Griffin, Ga. Power-driven cultivator. No. 1,416,993; May 23.
Stevens, William G., Jr., Willis, Tex. Gear shifter. No. 1,417,213; May 23.
Stewart, George A. (See Kelley, E. H., and Stewart.)
Stimmel, Frederick C., Chattanooga, Tenn., assignor to The Casey-Hedges Co. Mud ring for boilers and applying same. No. 1,416,762; May 23.
Stockham, William G., Piqua, Ohio. Tire armor. No. 1,417,359; May 23.
Stoeckicht, Wilhelm, Munich, Germany. Gearing. No. 1,416,905; May 23.
Stone, William J. (See McIntyre, Dallas, assignor.)
Stoner, Paul, assignor to Landis Tool Company, Waynesboro, Pa. Positioning means for grinding wheel carriages. No. 1,416,994; May 23.
Stork Motor Company et al. (See Jungerheld, Frederick F., assignor.)
Stranszky, Emil, Dover, Ohio. Electrically-heated flatiron. No. 1,417,421; May 23.
Strom, Matt, and E. Hoglund, Duluth, Minn. Soil-cultivating tool. No. 1,416,906; May 23.
Stromberg Motor Devices Company, The. (See Mock, Frank C., assignor.)
Stroud, Edmund H., Chicago, Ill. Dust collector. No. 1,416,995; May 23.
Strubing, Frank W., Hartford, Wis. Cigar lighter. No. 1,417,422; May 23.
Stucatur, Matthew, Philadelphia, Pa. Automatic change-speed mechanism. No. 1,416,996; May 23.
Submarine Signal Company. (See Fay, Harold J. W., assignor.)
Sullivan Machinery Company. (See Halvorsen, Halbert B., assignor.)
Sullivan Machinery Company. (See Johansen, Harry C., assignor.)
Sundby Battery & Manufacturing Company. (See Sundby, John C., assignor.)
Sundby, John C., assignor to Sundby Battery & Manufacturing Sompany, Enderlin, N. Dak. Storage-battery element. No. 1,417,214; May 23.
Superheater Company, The. (See Broido, Benjamin, assignor.)
Swaim, Lee O. (See Harris, H. E., and Swaim.)
Swander, Dan C., assignor to The Standard Parts Company, Cleveland, Ohio. Rim. No. 1,417,285; May 23.
Syrett, James F., Baltimore, Md. Heat-utilizing device. No. 1,417,215; May 23.
Tatschke, Edward, Berlin, Germany. Lubricator. No. 1,417,216; May 23.
Taylor, Bayard E., Oak Park, Ill. Automobile door lock. No. 1,417,423; May 23.
Taylor, Sydney E., Westcliff-on-Sea, F. O. Ellis, Southend, and E. T. Archer, Leigh, England. Sparking plug. No. 1,416,907; May 23.
Taylor, William A., Detroit, Mich. Automobile alarm. No. 1,417,217; May 23.
Taylor, William E., East Orange, N. J., assignor to American Can Company, New York, N. Y. Machine for filling and closing cans. No. 1,416,997; May 23.
Textile Machine Works. (See Zwicky, Melchior, assignor.)
Thom, James C., Chicago, Ill., assignor to Combination Machine Company, New York, N. Y. Mechanism for arranging and feeding cylindrical box bodies. No. 1,416,763; May 23.

Thomas, Carlyle W., and P. W. Somers, Bridgeport, Conn., assignors to The Singer Manufacturing Company, Elizabeth N. J. Seam-margin-opening device for sewing machines. No. 1,416,998; May 23.
Thomas, Simpson, Southampton, N. Y. Calendar. No. 1,417,424; May 23.
Thompson, Elmer, Eau Claire, Wis. Power grubber. No. 1,417,425; May 23.
Thomson Spot Welder Company. (See Sander, Jacob C., assignor.)
Tiedemann, Theo, & Sons, Inc. (See Cuthbert, Robert F., assignor.)
Tillson, Benjamin F., Franklin, N. J. Fluid rheostat. No. 1,416,908; May 23.
Toohey, James F., Detroit, Mich. Ticket holder. No. 1,416,909; May 23.
Torbensen, Viggo V., assignor, by mesne assignments, to The Standard Parts Company, Cleveland, Ohio. Axle and wheel construction for power-driven vehicles. No. 1,417,426; May 23.
Toy, Samuel, Boston, Mass. Time-controlled reminder apparatus. No. 1,416,910; May 23.
Tracy, James, et al. (See Tracy, Laurence J., assignor.)
Tracy, Laurence J., deceased; J. O'Leary, administratrix, assignor of one-fourth to W. L. Deering, St. Louis, Mo., one-fourth to C. J. Gevecker and H. Gevecker, one-tenth to M. Connell, one-tenth to M. Decker, one-tenth to R. McGrane, one-tenth to J. O'Leary, and one-tenth to J. Tracy. Electric heater. No. 1,417,427; May 23.
Traliot, Arnold, Lexington, Ky. Soldering composition. No. 1,417,428; May 23.
Trapp, Alfred, Milwaukee, Wis. Automatic stabilizing device. No. 1,416,911; May 23.
Treichel, Thomas J., San Francisco, Calif. Adjustable sun and light diffuser. No. 1,417,218; May 23.
Trew, Thomas J., assignor to King Automatic Troller Co., Seattle, Wash. Automatic reeling device. No. 1,417,429; May 23.
Troy Laundry Machinery Co. (See Hoting, Hans C., assignor.)
Trumpour, William J., Chicago, Ill., and W. Wirth, St. Joseph, Mich.; said Wirth assignor to said Trumpour. Jack. No. 1,416,912; May 23.
Trynoski, Robert S., Chicago, Ill. Boiled-potato-slicing machine. No. 1,417,360; May 23.
Tulloch, David M., Dunellen, and W. Bodge, Nutley, N. J., assignors, by mesne assignments, to B. L. Armstrong, Dunellen, N. J. Lock. No. 1,417,430; May 23.
Turk, William F., and S. Nielsen, Brisbane, Queensland, Australia. Milking machine. No. 1,417,116; May 23.
Turnell, Julius A. (See Spence, T. H., and Turnell.)
Turner, Earl W., Kokomo, Ind. Timer mechanism. No. 1,417,361; May 23.
Tyler, Alva W., assignor to The American Cement Plaster Company, Chicago, Ill. Cutting machine. No. 1,417,117; May 23.
U. S. Light & Heat Corporation. (See Carpenter, Campbell C., assignor.)
U. S. Light & Heat Corporation. (See Donop, August W., assignor.)
U. S. Light & Heat Corporation. (See Steerup, Godfrey, assignor.)
Underwood Computing Machine Company. (See Pitman, Henry L., assignor.)
Underwood Computing Machine Company. (See Vickers, Harry H., assignor.)
Underwood, James J. (See Langton, V. F., and Underwood.)
Underwood Typewriter Company. (See Dobson, William A., assignor.)
Union Switch & Signal Company, The. (See Gilson, Robert M., assignor.)
United Engine Company. (See Rutherford, Nealon D., assignor.)
United Shoe Machinery Corporation. (See Hadaway, John B., assignor.)
United Shoe Machinery Corporation. (See Knott, Clyde L., assignor.)
United Shoe Machinery Corporation. (See Megathlin, Ralph S., assignor.)
United Shoe Machinery Corporation. (See Seely, T. H., and Simmons, assignors.)
Uno, Mitsu, San Francisco, Calif. Tool for aligning tracks. No. 1,416,999; May 23.
Utne, Per, South Orange, N. J. Bumper for motor vehicles. No. 1,417,118; May 23.
Utz, Eugene F., Middletown, Ohio. Carburetor. No. 1,416,913; May 23.
Vacher, Clement. (See Casorso, N. P., and Vacher.)
Van Meter, Morton, assignor to Simplex Wire Wheel Company, Cadillac, Mich. Wheel hub. No. 1,417,119; May 23.
Vann, Charles J., Brooklyn, N. Y. Food-dispensing apparatus. No. 1,416,764; May 23.
Vernam, Gilbert S., Brooklyn, N. Y., assignor to American Telephone and Telegraph Company. Ciphering device. No. 1,416,765; May 23.
Vest, Eugene W., Mulberry Grove, Ill. Air valve for gas burners. No. 1,417,120; May 23.
Vickers, Harry H., Corona, assignor to Underwood Computing Machine Company, New York, N. Y. Combined typewriting and computing machine. No. 1,416,766; May 23.
Vickery, George A., Lexington, Mass. Receptacle. No. 1,416,914; May 23.
Villani, Anthony and J., Brooklyn, N. Y. Stamp-affixing machine. No. 1,417,362; May 23.
Villani, John. (See Villani, Anthony and J.)
Vindrier, Stephane L. J., assignor to the firm Mathieu, Durand et Cie., Lyon, France. Apparatus for feeding liquid fuel to internal-combustion engines. No. 1,416,915; May 23.
Viscose Company, The. (See Clayton, James, assignor.)
Vogt, August C., Los Angeles, Calif. Butt-inlet-cutting device. No. 1,417,431; May 23.
Vogt, Henric C., Copenhagen, Denmark, W. V. Boby, London, and S. D. Lancaster, Barkingside, England. Windmill. No. 1,417,000; May 23.
Volis, Harry, Detroit, Mich. Gauge. No. 1,417,001; May 23.
Vollmann, Walter, Berlin, Germany. Film-winding device. No. 1,417,474; May 23.
Vought, George D., Mount Union, Pa. Receptacle for barbers' equipment. No. 1,416,767; May 23.
Wadsworth, Frank L. O., Pittsburgh, Pa., assignor to Hughes Tool Company, Houston, Tex. Rotary boring drill. No. 1,417,363; May 23.
Walcott, Inez M. (See Fraser, Lester C., assignor.)
Walker Brothers Company, The. (See Walker, Willard R., assignor.)
Walker, Charles G., Highland Park, Mich. Base for heaters or the like. No. 1,416,916; May 23.
Walker, Willard R., assignor to The Walker Brothers Company, Syracuse, N. Y. Shaft coupling. No. 1,417,432; May 23.
Walker, William L., New York, N. Y. Shock absorber. No. 1,417,002; May 23.
Wall, Willie F., Bay Shore, Calif. Automatic hose coupling. No. 1,417,433; May 23.
Wallace, David A., Waterloo, Iowa. Drill-grinding machine. No. 1,417,364; May 23.
Wallendorf, Charles R., Brooklyn, N. Y. Thermometer case. No. 1,417,365; May 23.
Warland, Dual Rim Company Limited, The. (See Dukes, Williams, assignor.)
Warneke, William E. (See Morrison, Alfred J., assignor.)
Warren, Thomas H., Dexter, Iowa. Autohemic therapy potentizer. No. 1,417,219; May 23.
Waterbury Clock Co. (See Putnam, James R., assignor.)
Waterman, Arthur. (See Armstrong, Ralph W., assignor.)
Watkins, Leigh, New Orleans, La. Motor. No. 1,417,003; May 23.
Wayne, Herbert N., Washington, D. C. Inner liner for automobile tires. No. 1,416,917; May 23.
Webb, Thomas H. (See Rhodes, C. J., and Webb.)
Webb, Walter W., London, England. Oil lamp. No. 1,417,004; May 23.
Wedoit Company, The. (See Landrum, F. H., and Cramer, assignor.)
Weeden, Arthur W., Quincy, Mass., assignor, by mesne assignments, to Weeden, Johnson & Co., Inc. Batting device for baseball game apparatus. No. 1,416,918; May 23.
Weeden, Johnson & Co. (See Weeden, Arthur W.)
Weeke, Theodore L., Okawville, Ill. Shell. No. 1,417,475; May 23.
Weiss, William P., Bloomsburg, Pa. Educational apparatus. No. 1,417,434; May 23.
Weldon, Thomas E. (See Sarlls, Theodore, assignor.)
Wellington, John M., and D. G. Mackenzie, Ilford, England. Grab. No. 1,416,768; May 23.
Werle, Peter. (See Brower, L. N., and Werle.)
Werner, Paul, St. Louis, Mo. Fastener. No. 1,417,286; May 23.
Wescott, William B., Wellesley Hills, assignor to Kalmus, Comstock & Wescott, Incorporated, Boston, Mass. Cinematographic apparatus. No. 1,417,005; May 23.
Westinghouse Air Brake Company, The. (See England, Alexander, assignor.)
Westinghouse Air Brake Company, The. (See Farmer, Clyde C., assignor.)
Westinghouse Electric and Manufacturing Company. (See Flanders, Warren B., assignor.)
Westinghouse Electric and Manufacturing Company. (See Schmidt, Henry F., assignor.)
Weston, William S., Dallas, Tex. Anticreeper tie plate for railway rails. No. 1,417,366; May 23.
Whalen, James D., et al., trustees. (See Larsen, Edward A., assignor.)
Whewell, James E., and H. I. Yoder, Hollsopple, Pa. Check holder for mine cars. No. 1,417,006; May 23.
White, J. H., Manufacturing Company. (See Kahns, Walter R., assignor.)
White, J. H., Manufacturing Company. (See Keller, Karl, assignor.)
White, John W., San Antonio, Tex. Brake. No. 1,417,435; May 23.
Whitehouse, John N., New York, N. Y. Cigar-holder case, pipe case, or similar receptacle. No. 1,417,121; May 23.
Wickson, John A., Victoria, British Columbia, Canada. Building block. No. 1,416,919; May 23.
Wilkinson, Jabez, Fall River, Mass. Harness-operating device for looms. No. 1,417,220; May 23.
Wilkinson, Lee, Sour Lake, Tex. Lifting device. No. 1,417,436; May 23.
Willett, Leon E., Detroit, Mich. Steering wheel. No. 1,417,122; May 23.
Williams, Frederic C., Coronado Beach, Calif. Valve turning and grinding machine. No. 1,416,920; May 23.

Williams, Horace M., Providence, R. I., assignor to Electrol Manufacturing Company. Making electric storage batteries. No. 1,417,007; May 23.
Williams, J. H., & Company. (See Bufford, George W., assignor.)
Williams, Joseph S., Riverton, N. J. Wheel equipment and constructing same. No. 1,417,008; May 23.
Williamson, John A., Denver, Colo. Finger-grasping safety razor. No. 1,417,437; May 23.
Willner, Sigmund. (See Dederich, W., and Willner.)
Willys-Morrow Company, The. (See Knowles, Harford C., assignor.)
Willys-Overland Company, The. (See Duket, Henry T., assignor.)
Willys-Overland Company, The. (See Edwards, Henry J., assignor.)
Willys-Overland Company, The. (See Gravel, Albundius, assignor.)
Willys-Overland Company, The. (See Kehoe, Thomas J., assignor.)
Wilson, Edwin R., Sykes, Mont. Windmill. No. 1,417,438; May 23.
Wilson, Peter M., Marseille, France. Steering device for motor vehicles. No. 1,416,921; May 23.
Wine Railway Appliance Company, The. (See Cremean, William F., assignor.) (Reissue.)
Wirth, Wencel. (See Trumpour, W. J., and Wirth.)
Wolcott, Edson R., assignor to International Precipitation Company, Los Angeles, Calif. Process and apparatus for separation of suspended material from gases. No. 1,416,769; May 23.
Wood, Arthur C., Mansfield, Ohio, assignor, by mesne assignments, to The Mansfield Lamp and Manufacturing Company. Reflector lamp. No. 1,417,123; May 23.
Wood, Casimir J., San Francisco, Calif. Separator and drier. No. 1,416,922; May 23.
Woodring, A. I., Company, The. (See Woodring, Alberto I., assignor.)
Woodring, Alberto I., assignor to The A. I. Woodring Company, Waterloo, Iowa. Signal-governing apparatus. No. 1,417,124; May 23.
Woodruff, Frank, Rochester, Pa. Liquid-vending apparatus. No. 1,417,439; May 23.
Woodward, John W., Montreal, Quebec, Canada. Garment hanger. No. 1,417,009; May 23.
Wooldrik, Solomon A., Sleepy Eye, Minn. Sawing attachment for tractors. No. 1,416,923; May 23.
Worden, Charles W., Dallas City, Ill. Hayrack. No. 1,417,125; May 23.
Wright, Charles W. (See Wright, George S. and C. W.)
Wright, George S. and C. W., Philadelphia, Pa. Paving block. No. 1,417,010; May 23.
Wubbolding, Leo F. (See Freyberg, J., and Wubbolding.)
Wunderlick, Jay E., assignor of one-half to C. N. Hostetler, Waterloo, Iowa. Expansion joint. No. 1,417,126; May 23.
Wylie, Wellington B., et al. (See Jungerheld, Frederick F., assignor.)
Yale & Towne Manufacturing Company, The. (See Barker, Frank C., assignor.)
Yanai, Teizo, assignor to Nihon Denki Kogijo Kabushiki Kaisha, Tokyo, Japan. Copper conductor for electric-lamp bulbs and other vacuum tubes. No. 1,417,287; May 23.
Yoder, Harley I. (See Whewell, J. E., and Yoder.)
Yrureta, Victor, Buenos Aires, Argentina. Apparatus for admitting additional heated air into internal-combustion engines. No. 1,417,127; May 23.
Yuasa, Shinkichi, Cupertino, Calif. Disk plow and the like. No. 1,417,221; May 23.
Zenke, Henry C., Richmond Hill, assignor to Simplex Metal Feeder Company, Inc., New York, N. Y. Metal-feeding apparatus. No. 1,417,440; May 23.
Zent, Wayne P., Troy, N. Y. Metal feeder for typographical machines. No. 1,416,770; May 23.
Zoppelt, John. (See Zoppelt, Samuel and J.)
Zoppelt, Samuel and J., Monaca, Pa. Wire-coil conveyer. No. 1,417,288; May 23.
Zwicky, Melchior, assignor to Textile Machine Works, Wyomissing, Pa. Loop-regulating mechanism for knitting machines. No. 1,417,289; May 23.
Zwicky, Melchior, assignor to Textile Machine Works, Wyomissing, Pa. Selvage-reenforcing attachment for full-fashioned knitting machines. No. 1,417,290; May 23.

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

Aemisegger, Jean, assignor to Inflexible Co., West New York, N. J. Embroidered lace. No. 60,972; May 23.
American Kardex Company. (See Rand, James H., Jr., assignor.)
Archer, Frank M., Brookline, assignor to The Moxie Company, Boston, Mass. Holder for ash trays or similar articles. No. 60,973; May 23.
Bartholomew, Walter E., Niles, Mich. Toy saddle horse. No. 60,974; May 23.
Bowen, Michael B., assignor to Faries Manufacturing Company, Decatur, Ill. Arm for lighting fixtures. Nos. 60,975–6 May 23.
Brown, John C., and L. E. Kraft, assignors to Fort Wayne Tire & Rubber Manufacturing Company, Fort Wayne, Ind. Tire tread. No. 60,977; May 23.
Case, Francis M., Cleveland, Ohio, assignor, by mesne assignments, to The Foote-Burt Company. Combination washing-machine tub and frame. No. 60,978; May 23.
Cigol, Frank A., Paterson, N. J. Toy ball. No. 60,979; May 23.
Clements, Joseph L., Birmingham, Ala. Broom and mop hanger. No. 60,980; May 23.
Crex Carpet Company. (See Waldo, Algeron H., assignor.)
Dahl, Thure, New York, N. Y., assignor to Lightolier Co. Lighting fixture. No. 60,981; May 23.
Dahl, Thure, New York, N. Y., assignor to Lightolier Co. Canopy for lighting fixtures. No. 60,982; May 23.
Dahl, Thure, New York, N. Y., assignor to Lightolier Co. Body for lighting fixtures. No. 60,983; May 23.
Dahl, Thure, New York, N. Y., assignor to Lightolier Co. Shade frame for lighting fixtures. No. 60,984; May 23.
Faries Manufacturing Company. (See Bowen, Michael B., assignor.)
Firestone Tire and Rubber Company, The. (See Tuttle, John C., assignor.)
Foote-Burt Company, The. (See Case, Francis M., assignor.)
Fort Wayne Tire & Rubber Manufacturing Company. (See Brown, J. C., and Kraft, assignors.)
Glaser Bros. (See Glaser, Sarah, assignor.)
Glaser, Sarah, assignor to Glaser Bros., Boston, Mass. Finger ring. No. 60,985; May 23.
Gustaveson, Clarence A., Whitewater, Wis. Toy truck. No. 60,986; May 23.
Hoenig, Franz, assignor to Tobler & Hoenig, New York, N. Y. Embroidery, lace, or article of similar nature. Nos. 60,987–8; May 23.
Horological Institute of America. (See Marsh, Edward A., assignor.)
Humphrey, Hubert R., Kalamazoo, Mich. Gas heater. No. 60,989; May 23.
Inflexible Co. (See Aemisegger, Jean, assignor.)
Janicki, William, Chicago, Ill. Christning card. No. 60,990; May 23.
Kleinman, Samuel, Los Angeles, Calif. Pin, brooch, bracelet, finger ring, or article of similar nature. No. 60,991; May 23.
Kraft, Louis E. (See Brown, J. C., and Kraft.)
Lightolier Co. (See Dahl, Thure, assignor.)
Marsh, Edward A., Newton, Mass., assignor to Horological Institute of America, Washington, D. C. Seal, medallion, button, and scarf pin. No. 60,992; May 23.
Moxie Company, The. (See Archer, Frank M., assignor.)
Obsboum, Thomas M., Chicago, Ill. Ring. No. 60,993; May 23.
Poritz, Frederick M., assignor to Star Chandelier Company, Inc., New York, N. Y. Chandelier. Nos. 60,994–6; May 23.
Radford, George, Oakland Beach, R. I., assignor to Richmond Lace Works, Alton, R. I. Lace. No. 60,997; May 23.
Rand, James H., Jr., assignor to American Kardex Company, Tonowanda, N. Y. Cabinet unit. No. 60,998; May 23.
Richmond Lace Works. (See Radford, George, assignor.)
Roberts, Robert L., Sacramento, Calif. Toy. No. 60,999; May 23.
Rome Metallic Bedstead Company. (See Rosenburgh, Ernest L., assignor.)
Rosenburgh, Ernest L., assignor to Rome Metallic Bedstead Company, Rome, N. Y. Bedstead end frame. Nos. 61,000–1; May 23.
Simmons, Ada S., assignor of one-half to M. M. Zimmerman, Kansas City, Mo. Doll. No. 61,002; May 23.
Star Chandelier Company. (See Poritz, Frederick M., assignor.)
Tobler & Hoenig. (See Hoenig, Franz, assignor.)
Tuttle, John C., assignor to The Firestone Tire and Rubber Company, Akron, Ohio. Resilient tire. No. 61,003; May 23.
Waldo, Algermont H., St. Paul, Minn., assignor to Crex Carpet Company, New York, N. Y. Rug. Nos. 61,004–8; May 23.
Zimmerman, Marguerite M. (See Simmons, Ada S., assignor.)

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

Abbott, A. Theo., & Co., Philadelphia, Pa. Fiber fabric imitating silk. No. 155,185; May 23.

Acme Machine Tool Co., The, Cincinnati, Ohio. Machine tools. No. 155,186; May 23.

Ahrens, Edward H., New York, N. Y. Monthly publications. No. 155,187; May 23.

Allied Labor Press Association, Boston, Mass. Printed books and circulars. No. 155,188; May 23.

American Automobile Association, Washington, D. C., and New York, N. Y. Printed maps, pamphlets, and books. Nos. 155,189–90; May 23.

American Calendar Company, The, Greeneville, Tenn. Calendars, an annual publication. No. 155,191; May 23.

American Laundry Machinery Company, The, Norwood, Ohio. Certain laundry appliances and machines. No. 155,192; May 23.

American Oyster Company, Providence, R. I. Canned oysters, clams, and chowder. No. 155,306; May 23.

American Wholesale Corporation (Baltimore Bargain House), Baltimore and Cumberland, Md. Certain textile fabrics. No. 155,193; May 23.

American Wholesale Corporation (Baltimore Bargain House), Baltimore, Md. Publications (monthly). No. 155,194; May 23.

Arkola Company, The, Little Rock, Ark. Nonalcoholic maltless beverage. No. 155,195; May 23.

Arnesto Paint Co., Inc., New York, N. Y. Paints for marine and house. No. 155,196; May 23.

Arrow Film Corporation, New York, N. Y. Motion-picture films. Nos. 155,197–8; May 23.

Ashaway Line & Twine Manufacturing Company, Ashaway, R. I. Fishing lines. No. 155,307; May 23.

Atlantic Mills, Providence, R. I. Woolen piece goods. No. 155,199; May 23.

Atlantic Stamping Company, Rochester, N. Y. Metal products consisting of funnels, strainers, commodes, pans, etc. No. 155,200; May 23.

Atlas Publishing Company, The, New York, N. Y. Periodicals published weekly. No. 155,201; May 23.

Automotive Accessories, Inc., Kokomo, Ind. Rear-view mirrors for vehicles. No. 155,308; May 23.

Bahnsen, C., & Co., Inc., New York, N. Y. Broadcloth piece goods. No. 155,202; May 23.

Baxter, Daniel L., Pawtucket, R. I. Mailing envelopes and wrappers. No. 155,203; May 23.

Bernard, W. J., New York, N. Y. Watches. No. 155,204; May 23.

Bestever Products Co., Chicago, Ill. Ironing tablets. No. 155,309; May 23.

Borgfeldt, George, & Co., New York, N. Y. Hollow aluminum ware: teapots, coffeepots, percolators, kettles, etc. No. 155,205; May 23.

Brenard Manufacturing Company, Iowa City, Iowa. Phonographic machines. No. 155,206; May 23.

Brittains Limited, Cheddleton, Staffordshire, England. Certain named papers. No. 155,207; May 23.

Brockmann & Company, Charlotte, N. C. Completely-printed books. No. 155,208; May 23.

Burns Pattern & Machine Company, Detroit, Mich. Aluminum teakettles, skillets, stew kettles, meat roasters, coffee and tea pots, and frying pans. No. 155,210; May 23.

Cadet Knitting Company, Philadelphia, Pa. Sweaters and underwear of knitted fabric. No. 155,310; May 23.

Cameron, Wm., & Co., Inc., Waco, Tex. Ironing boards. No. 155,211; May 23.

Canton-Blackstone Company, Canton, Ohio. Rubber tires, rubber-tire casings, and inner tubes. No. 155,311; May 23.

Chemical Works Brugg, Limited, Brugg, Switzerland. Nonalcoholic, maltless beverage and sirup for manufacturing same. No. 155,212; May 23.

Chicago Chemical Company, Chicago, Ill. Chemical solution for use in electric storage batteries. No. 155,312; May 23.

Choinski, Walter, Milwaukee, Wis. Self-cleaning pit mats for bowling alleys and devices for trapping and cleaning balls. No. 155,213; May 23.

Clinton & Cameron, South Boston, Mass. Compound for sealing punctures and slow leaks in pneumatic tires. No. 155,215; May 23.

Cogley, Edward F., Omaha, Nebr. Rubber-tire repair outfits containing inner-tube patches and rubber cement. No. 155,313; May 23.

Commercial Soap Company, Reno, Nev. Toilet soap. No. 155,314; May 23.

Continental Mills, Inc., Philadelphia, Pa. Knitted and woven woolen and worsted cloths, Jersey cloths, etc. No. 155,216; May 23.

Converse & Company, New York, N. Y. Pillowcases, sheets and bolster coverings. No. 155,217; May 23.

Cook, Charles I., Menominee, Mich. Coffee. No. 155,315; May 23.

Cook, Don S., North Eaton, Ohio. Certain veterinary medicine. No. 155,316; May 23.

David B. Edmund, Inc., New York, N. Y. Broad silks and dress satins, crêpe and silk shirtings in the piece. No. 155,218; May 23.

Decombe-Cook, Rose, Portland, Me. Healing and beautifying paste. No. 155,317; May 23.

Delta Sigma Phi Fraternity, The, New York, N. Y., and Washington, D. C. Quarterly publications. No. 155,219; May 23.

Deutz & Ortenberg, Inc., New York, N. Y. Waists. No. 155,318; May 23.

Dew, Joseph R., Indianapolis, Ind. Phonographs and parts thereof. No. 155,319; May 23.

Dick, A. B., Company, Chicago, Ill. Ink, particularly ink adapted for use on stencil duplicators. No. 155,220; May 23.

Disston, Henry, & Sons, Incorporated, Philadelphia, Pa. Saws, saw sets, and screw drivers. No. 155,221; May 23.

Downs, Mae L., Philadelphia, Pa. Monthly periodical. No. 155,222; May 23.

Eastern Advertising Company, New York, N. Y. Magazine section. No. 155,223; May 23.

Ehrman, William, New York, N. Y. Periodicals published monthly and at other intervals. No. 155,224; May 23.

Elgin National Watch Company, Chicago, Ill. Watches and watch movements. No. 155,225; May 23.

Emery & Beers Company, Inc., New York, N. Y. Stockings. Nos. 155,320–1; May 23.

Fan Tan Novelty Co., New York, N. Y. Hair nets. No. 155,226; May 23.

Faultless Rubber Company, The, Ashland, Ohio. Squawkers, balloons, balls, dolls, and animals, all made of rubber. No. 155,322; May 23.

Faultless Rubber Company, The, Ashland, Ohio. Certain named surgical appliances. No. 155,323; May 23.

Fegley, Oscar G., Philadelphia, Pa. Medicine for certain named purposes. No. 155,324; May 23.

Fennell Stamp Company, St. Louis, Mo. New and cancelled United States and foreign stamps. No. 155,227; May 23.

Fillman, John W., Philadelphia, Pa. Textile hospital blankets. No. 155,228; May 23.

Fites, Welcome E., San Francisco, Calif. Glue adhesive paste and mucilage. No. 155,325; May 23.

Fletcher Alltones Needle Co., San Antonio, Tex. Phonograph needles. No. 155,326; May 23.

Franklin Company, The, Chicago, Ill. Monthly magazine. No. 155,229; May 23.

Frolaset Corset Company, Detroit, Mich. Corsets, brassières, corset waists, girdles, dresses, etc. No. 155,327; May 23.

Garner Print Works and Bleachery, New York, N. Y. Cotton piece goods. No. 155,230; May 23.

Garrett & Company, Inc., Brooklyn, N. Y. Flavoring extracts for food purposes. No. 155,328; May 23.

Gebrüder Bühler, Uzwil, Switzerland. Brushes belonging to milling machinery. No. 155,209; May 23.

Gehring Publishing Company, The, New York, N. Y. Weekly magazine. No. 155,231; May 23.

General Chemical Company, New York, N. Y. Publication. No. 155,232; May 23.

Ginsberg, Edmund Wright, Company, Inc., New York, N. Y. Printed periodicals. No. 155,233; May 23.

Gladding, B. F., & Co., Inc., South Otselic, N. Y. Enameled silk fishing lines. No. 155,234; May 23.

Gladding, B. F., & Co., Inc., South Otselic, N. Y. Fishing lines. No. 155,235; May 23.

Gladding, B. F., & Co., Inc., South Otselic, N. Y. Braided fishing lines. No. 155,236; May 23.

Gladding, B. F., & Co., Inc., South Otselic, N. Y. Fishing lines. No. 155,329; May 23.

Greater Manhattan Knitting Mills, Inc., New York, N. Y. Sweaters. No. 155,330; May 23.

Halliwell & Patton Publishing Co., Inc., Chicago, Ill. Periodic publication. No. 155,237; May 23.

Hanpeter, F. W., Furniture Company, St. Louis, Mo. Phonographs. No. 155,238; May 23.

Hartman, Milton, Detroit, Mich. Combined listing and mailing sheets. No. 155,239; May 23.

Hartman Specialty Company, Philadelphia, Pa. General medicinal tonic. No. 155,331; May 23.

Haupt, John J., Pittsburgh, Pa. Malt extract. No. 155,240; May 23.

Heidelberg, Max, Neuilly-sur-Seine, (Seine,) France. Certain toilet preparations. No. 155,332; May 23.

Henderson, Peter, & Co., New York, N. Y. Annual catalogues. No. 155,241; May 23.

Hertzberg, Williams, New York, N. Y. Certain brushes, mops, and dusters. No. 155,333; May 23.

Hicks, Herma L., Rocky Mount, N. C. Medicinal compound used in the treatment of neuralgia, sciatica, pneumonia, etc. No. 155,334; May 23.

Hispanic American Publishing Co. Inc., New York, N. Y. Daily publication. No. 155,242; May 23.

Hochschild, Kohn & Company, Inc. Talking machines. No. 155,335; May 23.

Holbrook & Gibson, Chicago, Ill. Typewriter ribbons and carbon paper. No. 155,243; May 23.

Hollinwood, George, Cranford, N. J. Certain horological instruments. No. 155,244; May 23.

Illinois Pure Aluminum Co., Lemont, Ill. Certain articles of aluminum ware and for household and kitchen purposes. No. 155,245; May 23.
Karlok Manufacturing Company, Newark, N. J. Locks for atuomobile steering mechanism. No. 155,246; May 23.
Kee Lox Manufacturing Company, Rochester, N. Y. Carbon paper. No. 155,336; May 23.
Keller, B. A., Newark, N. J. Eyeglasses, temples, and eyeglass bridges and nose pieces for same. No. 155,247; May 23.
Lederer, Michael C., Cleveland, Ohio. Rubber stamps and marking devices. No. 155,248; May 23.
Lundborg Inc., New York, N. Y. Certain toilet preparations. No. 155,337; May 23.
McLean Reports, Inc., Boston, Mass. Bulletins for insurance purposes regarding condition of buildings. No. 155,249; May 23.
Madison Mills, Inc., New York, N. Y. Dress, negligee, work shirts, and underwear. No. 155,338; May 23.
Magna Metal Corporation, Newark, N. J. Magnesium alloys and castings and forgings produced therefrom. No. 155,250; May 23.
Mallinson, H. R., & Co., Inc., New York, N. Y. Silk piece goods. No. 155,251; May 23.
Manufacturers' Phonograph Co., Inc., New York, N. Y. Phonographs. No. 155,252; May 23.
Marshall Field & Company, Chicago, Ill. Alarm clocks. No. 155,253; May 23.
Mat Company, The, Muskegon, Mich. Coco-fiber automobile running-board mats. No. 155,339; May 23.
Meiszahl, Chas. W., New York, N. Y. Nonalcoholic, noncereal, maltless beverages. No. 155,254; May 23.
Mel-O-Dee Music Company Inc., New York, N. Y. Music rolls for player pianos, etc., and records for phonographs and the like. No. 155,255; May 23.
Merchant & Evans Company, Philadelphia, Pa. Fire doors and shutters. No. 155,340; May 23.
Merrill, George E., Company, Salt Lake City, Utah. Lumber-trade periodical. No. 155,256; May 23.
Metal Specialties Manufacturing Company, Chicago, Ill. Gummed-tape moistening and cutting machines. No. 155,257; May 23.
Metal Specialties Manufacturing Company, Chicago, Ill. Gummed tape moistening and cutting machines. No. 155,261; May 23.
Middletown Silver Company, The, Middletown, Conn. Silver-plated hollow ware and silver-plated tableware. No. 155,341; May 23.
Miller Bros. & Company, Philadelphia, Pa. Bed clothing—namely, comfortables, quilts, blankets, and bedspreads. No. 155,258; May 23.
Miller, H. H., Industries Company, The. (See Miller Pasteurizing Machine Company.)
Miller Pasteurizing Machine Company, now by change of name The H. H. Miller Industrial Company, Canton, Ohio. Ice-cream freezers. No. 155,342; May 23.
Mitchell-Bissell Company, New York, N. Y. Thread guides for textile machinery. Nos. 155,259–60; May 23.
Mockridge, Whitney, London, Middlesex, England. Bookholders. No. 155,262; May 23.
Morris, William L., Broseley, Mo. Egg candlers. No. 155,263; May 23.
Munger, Louis A., Long Island City, N. Y. Spark plugs and spark plug cores. No. 155,343; May 23.
National Automatic Tool Company, The, Richmond, Ind. Drilling, reaming, and tapping machines. No. 155,264; May 23.
National Catholic Welfare Council, Washington, D. C. Printed pamphlets. No. 155,265; May 23.
National Washboard Company, Chicago, Ill., Saginaw, Mich., and Memphis, Tenn. Washboards. No. 155,266; May 23.
Near East American Publishing Company, The, Washington, D. C. Weekly newspaper. No. 155,267; May 23.
Neuville, Adolph, St. Louis, Mo. Shirts, shirt waists, and waists. No. 155,344; May 23.
New York Mineral Water Company, Cincinnati, Ohio. Certain soft drinks. No. 155,268; May 23.
Novelty Braid & Trimming Co., New York, N. Y. Braid. No. 155,345; May 23.
Ollendorff, I., Co. Inc., New York, N. Y. Watches, watch-cases, watch movements, and clocks. No. 155,346; May 23.
Onepiece Bifocal Lens Company, Indianapolis, Ind. Ophthalmic lenses. No. 155,269; May 23.
Overton, Anthony, Chicago, Ill. Preparation for corns, bunions, and callouses. No. 155,347; May 23.
Packard Piano Company, The, Fort Wayne, Ind. Upright, grand, player, and reproducing pianos. No. 155,270; May 23.
Peper, Christian, Tobacco Co., St. Louis, Mo. Smoking and chewing tobacco. No. 155,214; May 23.
Perfek'tone Corporation, The, Philadelphia, Pa. Talking machines and supplies. No. 155,271; May 23.
Pesicchil, James, Denver, Colo. Prophylactic preparations. No. 155,348; May 23.
Pierson Company, The, Rockford, Ill. Certain laundry appliances. No. 155,272; May 23.
Pitman-Moore Company, Indianapolis, Ind. Anti-hog-cholera serum. No. 155,349; May 23.
Plumbers Trade Journal Publishing Company, The, New York, N. Y. Semimonthly magazine. No. 155,273; May 23.
Pure Oil Company, The, Columbus, Ohio. Textile oils employed in the manufacture of fabrics. No. 155,350; May 23.
Radiotone Company, The. (See Radiotone Photo Company, assignor.)
Radiotone Photo Company, The, Chicago, Ill., assignor to The Radiotone Company, Dover, Del. Photographic prints on metal. No. 155,274; May 23.
Reflexo Products Co. Inc., New York, N. Y. Talking machines and talking-machine needles, record repeaters, etc. No. 155,275; May 23.
Reuter, Herman, Milwaukee, Wis. Make-up paste for undertakers. No. 155,351; May 23.
Roberts, H. C., Electric Supply Company, Philadelphia, Pa. Laundry washing machines. No. 155,276; May 23.
Robertson Paper Co., Bellows Falls, Vt. Wrappers on waxed lunch rolls. No. 155,277; May 23.
Robeson Process Company, New York, N. Y. Liquid composition of matter employed as a treating and tanning agent. No. 155,352; May 23.
Roth Bros. Piano Co., Inc., New York, N. Y. Upright and grand pianos and player pianos. No. 155,278; May 23.
Royal Ink & Mucilage Co., Pittsburgh, Pa. Writing fluid. No. 155,279; May 23.
Ryan, Thomas W., Concord Junction, Mass. Ball cocks. No. 155,353; May 23.
Salz Brothers, New York, N. Y. Fountain pens. No. 155,280; May 23.
San Antonio Beverage Syrup Co., San Antonio, Tex. Maltless, nonintoxicating beverage and sirup for making same. No. 155,281; May 23.
Schaefer, Estate of Joseph J., deceased, Dayton, Ohio. Cigars. No. 155,282; May 23.
Schaffner, Theophilus C., Chicago, Ill. Men's outer garments. No. 155,354; May 23.
Schwob, Adolphe, Inc., New York, N. Y. Watches, watch movements, dials, and cases. No. 155,283; May 23.
Seel, George A., Galveston, Tex. Flavoring sirups and a maltless nonalcoholic beverage. No. 155,284; May 23.
Selter, P. B., Detroit, Mich. Tackle blocks. No. 155,285; May 23.
Seville Laboratories, Chicago, Ill. Hair tonic. No. 155,355; May 23.
Sherwin-Williams Company, Cleveland, Ohio. Certain inks and inking materials. No. 155,286; May 23.
Smith-McCord-Townsend Dry Goods Co., Kansas City, Mo. Sweaters, bathing suits, knitted caps, infants' sacks, etc. No. 155,356; May 23.
Stafford, George A., New York, N. Y. Woven cotton fabrics in the piece. No. 155,287; May 23.
Steinert, M., & Sons Co., Boston, Mass. Player pianos, piano players, pianos, and organs. No. 155,288; May 23.
Stevens, Isaac F., Nashua, N. H. Refrigerators. Nos. 155,289–90; May 23.
Strasenburgh, R. J., Company, Rochester, N. Y. Preparation for the treatment of coughs and bronchial disorders. No. 155,357; May 23.
Tacony File & Hardware Co., Inc., Philadelphia, Pa. Files. No. 155,291; May 23.
Taylor Bros. Co. The, Cleveland, Ohio. Stencil and marking ink. No. 155,292; May 23.
Thomson-Diggs Company, The, Sacramento, Calif. Certain laundry appliances. No. 155,293; May 23.
Tower Manufacturing Co., Inc., New York, N. Y. Dyes. No. 155,358; May 23.
Trahern Tobacco Co., Inc., Clarksville, Tenn. Tobacco extract used for saucing or flavoring tobacco. No. 155,294; May 23.
Tremont Manufacturing Company, Greensburg, Pa. Medicine for diseases of the lungs. No. 155,295; May 23.
Twin Tube & Rubber Company, Chicago Heights, Ill. Rubber heels. No. 155,296; May 23.
United Cigar Stores Company of America, Jersey City, N. J., and New York, N. Y. Cigars, cigarettes, cheroots, snuff, and manufactured tobacco. No. 155,297; May 23.
United States Envelope Company, Springfield, Mass. Certain paper and stationery. No. 155,298; May 23.
Van Arnam Manufacturing Company, Fort Wayne, Ind. Mop wringers. No. 155,299; May 23.
Vreeland, C. Duncan, Lake Charles, La. Nonalcoholic, noncereal, maltless beverage. No. 155,359; May 23.
Wally, Inc., Cleveland, Ohio. Printed, embossed, and engraved advertising cards, sheets, circulators, etc. No. 155,300; May 23.
Walsh, Richard E., Fall River, Mass. Laxative in candy form. No. 155,360; May 23.
Walter, S., Inc., Philadelphia, Pa. Toilet paper. No. 155,301; May 23.
Winer Mfg. Co., The, Hammond, Ind. Overalls, jackets, and work shirts. No. 155,361; May 23.
Withington-Hunting, Inc., New York, N. Y. Motion-picture-projecting apparatus. No. 155,302; May 23.
Wohl, South & Co., New York, N. Y. Cotton piece goods. No. 155,303; May 23.
Wolfrath, R. Edwin, New York, N. Y. Writing ink. No. 155,304; May 23.
Yellow Jack-It Mfg. Co., Chicago, Ill. Lifting jacks and parts thereof. No. 155,305; May 23.

ALPHABETICAL LIST OF TRADE-MARK APPLICANTS.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Akron Mattress Manufacturing Co., The, Akron, Ohio. Mattresses, springs, pillows. No. 158,549; May 23.
Akron-Selle Company, The, Akron, Ohio. Liquid gauges. No. 157,015; May 23.
Aktiengesellschaft Lignose, Berlin, Germany. Explosives, blasting powder, fuses, detonators, etc. No. 155,249; May 23.
American Lady Corset Company, Detroit, Mich. Corsets, brassières, corset waists, underwear, hosiery, etc. No. 152,000; May 23.
American Milk Products Corporation, New York, N. Y. Evaporated milk. No. 152,732; May 23.
American Milk Products Corporation, New York, N. Y. Evaporated milk. No. 156,142; May 23.
American Pine Products Corporation, New York, N. Y. Flotation oil. No. 127,792; May 23.
American Products Company. (See Mills Brothers Company.)
American Sundries Company, Chicago, Ill. Tooth paste. No. 150,257; May 23.
American-Swiss Watch Co. Inc., Peekskill, N. Y. Watches, watch movements, watchcases, and parts thereof. No. 159,455; May 23.
Artistic Designers Inc., Louisville, Ky. Raincoats and sweaters. No. 149,112; May 23.
Baker, H. A., Inc., Sumner, Wash. Canned fruits and vegetables. No. 140,009; May 23.
Banner Silk Knitting Mills, Inc., The, New York, N. Y. Silk knitted cloth. No. 157,355; May 23.
Barbour Brothers Co., The, Paterson, N. J. Lock-stitch machine thread. No. 160,336; May 23.
Bates Manufacturing Company, The, Orange, N. Y. Numbering machines. No. 159,083; May 23.
Bennett, George H., Kansas City, Mo. Film-cleaning fluid. No. 153,836; May 23.
Berg, F. & Co., Orange, N. J. Men's felt hats. No. 153,498; May 23.
Berman, Charles D., doing business as C. D. Berman Chemical Co., Wheeling, W. Va. Rat poison. No. 157,090; May 23.
Blank, Vernon D., doing business as Grinnell Games, Grinnell and Des Moines, Iowa. Table game played with disks and receptacles. No. 158,288; May 23.
Bob & Baskind, New York, N. Y. Men's shirts, boys' shirts and blouses. No. 155,802; May 23.
Bonheim, Frank M., doing business as The Frank M. Bonheim Licorice & Beverage Co., St. Louis, Mo. Non-alcoholic, maltless beverage and sirup and extract for making same. No. 155,080; May 23.
Boston Confectionery Company, Cambridge, Mass. Candy. No. 158,594; May 23.
Brewster Publications, Inc., Brooklyn, N. Y. Monthly publication. No. 158,593; May 23.
Brodinsky, David, doing business as Reliable Dry Goods Co. Hosiery and underwear of knitted and textile fabric. No. 153,643; May 23.
Burton-Dixie Corporation, Chicago, Ill. Cotton batting. No. 159,553; May 23.
Butler, J. W., Paper Company, Chicago, Ill. Cover paper. No. 139,955; May 23.
Butterick Publishing Company, The, New York, N. Y. Monthly periodical. No. 159,139; May 23.
Buzza Company, The, Minneapolis, Minn. Monthly publication. No. 158,283; May 23.
Cambridge Rubber Company. (See MacPherson, Warren.)
Carter, Ralph B., Company, New York, N. Y. Diaphragm pumps. No. 142,471; May 23.
Chicago Bargain House, Chicago, Ill. Hats for women and children. No. 155,337; May 23.
Chicago Granitine Manufacturing Company, Chicago, Ill. Stationary laundry tubs. Nos. 157,986–7; May 23.
Chicago Piston Ring Co. (not Inc.) (See Hallam, Ralph M.)
Cocuzza, Peter, Newark, N. J. Healing salve. No. 153,536; May 23.
Cohen, Abraham, doing business as Puritan Products Company, Baltimore, Md. Salad and cooking oil. No. 157,556; May 23.
Cohen, Harry, doing business as Harry Cohen & Co., Philadelphia, Pa. Knitting yarns. No. 160,231; May 23.
Cohn, Goldwater Company, Los Angeles, Calif. Men's and boys' outer suits and trousers. No. 150,352; May 23.
Conn, Andrew C., doing business as Eld-O-Lene Manufactoring Company, New Bedford, Mass. Medicinal salve for the treatment of rheumatism and kindred ailments. No. 153,334; May 23.
Craven & Love, Pittsburgh, Pa. Pile remedy. No. 155,015; May 23.
Craw, George R., Fort Wayne, Ind. Refrigerators. No. 161,032; May 23.
Crawford-Wilsey Co., Lynn, Mass. Wooden figures of animals. No. 160,117; May 23.
Crowley, Timothy F., New York, N. Y. Women's neckwear. No. 155,432; May 23.
Dalby, Thomas, Company, The, Watertown, Mass. Women's, children's, boys', and infants' underwear, etc. No. 154,919; May 23.
Davis, Ethel E., Boston, Mass. Liniment for rheumatism. No. 141,766; May 23.
Day, Adra L., doing business as Ideal Baby Shoe Company, Danvers, Mass. Shoes, slippers, and moccasins. No. 147,416; May 23.
Defiance Welding Company, The, Defiance, Ohio. Acid-resisting garments formed of rubberized cloth. No. 128,764; May 23.
Delta-Star Electric Company, Chicago, Ill. High-voltage switching and protective equipment. No. 159,247; May 23.
De Morales, Fidela M., San Francisco, Calif. Preparation for treatment of ulcerous wounds of long standing. No. 158,299; May 23.
De Van, John E., Baltimore, Md. Tablets to be used for indigestion. No. 114,428; May 23.
Dieges & Clust, New York, N. Y. Medals and badges made of or plated with precious metal. No. 152,120; May 23.
Dixon & Hillen, Oakland, Calif. Monthly periodical. No. 159,248; May 23.
Dorothy Perkins Toilet Goods Company. (See Isaacs, Tula E.)
Drewry, I. O., Contracting Company, Inc., Birmingham and Carbon Hill, Ala. Coal. No. 157,659; May 23.
Du Pont, E. I., de Nemours & Company, Wilmington, Del. Explosives, firearms, equipments, and projectiles. No. 161,305; May 23.
Eastern Engineering Company, Revere, Mass. Roller coasters. No. 159,203; May 23.
Eastern Hair Net Trading Co., New York, N. Y. Hair nets. No. 152,241; May 23.
Eggers, Edward L., doing business as the Merforal Company, St. Louis, Mo. Preparation for cleaning, shining, and polishing shoes and all leather articles. No. 157,918; May 23.
Eld-O-Lene Manufacturing Company. (See Conn, Andrew C.)
Engel, Albert W., doing business as Engel Manufacturing Company, Chicago, Ill. Blank gummed labels. No. 152,704; May 23.
Engel Manufacturing Company. (See Engel, Albert W.)
Eugol Motor Truck Co. (See Goldman, Eugene.)
Everybody's Talking Machine Company, Philadelphia, Pa. Springs for talking machines. No. 158,419; May 23.
Everyday Piston Ring Company, Inc., Rochester, N. Y. Piston rings. No. 158,763; May 23.
Exene Laboratories, Boston, Mass. Ointment for skin diseases. No. 158,300; May 23.
Fairmont Gas Engine & Railway Motor Car Co., Fairmont, Minn. Gasoline and hand-car engines. No. 160,802; May 23.
Fairmont Gas Engine & Railway Motor Car Co., Fairmont, Minn. Railway motor cars and pressed-steel car wheels. No. 160,803; May 23.
Farran-Kinney Company, Chicago, Ill. Belts and belting for automobile and power transmission. No. 159,019; May 23.
Finkel, Abraham D., doing business as Sorg Manufacturing Company, Pittsburgh, Pa. Bungalow aprons, dresses, petticoats, and band aprons, nightgowns, and bloomers. Nos. 154,404–5; May 23.
Fitz-Gerald Mfg. Company, The, Torrington, Conn. Electric toaster, air heater, and hair drier. No. 155,674; May 23.
Flynn Dairy Company, Des Moines, Iowa. Chocolate-coated ice cream. No. 157,763; May 23.
Fort Wayne Engineering & Mfg. Co., Fort Wayne, Ind. Deep-well, suction, and displacement pumps and parts thereof. No. 143,386; May 23.
Frank, Maxwell C., Oakland, Calif. Washboards. No. 159,860; May 23.
Friedman Dress Company, Inc., New York, N. Y. Women's and girls' dresses. No. 153,283; May 23.
Gabilla, Henriette, Paris, France. Toilet preparations. No. 139,262; May 23.
Garden Chemical Co., Inc., New York, N. Y. Insecticides. No. 158,117; May 23.
Gibson, Wm., & Co., Ltd., Kinghorn, Fife, Scotland. Iron heads for golf clubs and iron-headed golf clubs. No. 159,505; May 23.
Gilbert, William L., Clock Company, Winsted, Conn. Clocks. No. 160,059; May 23.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Gilson Company, The, Chicago, Ill. Caps for men, women, and children. No. 153,453; May 23.
Goldman, Eugene, doing business as Eugol Motor Truck Co., Chicago, Ill. Motor trucks. No. 160,408; May 23.
Gotham Optical Co., Inc., New York, N. Y. Eyeglasses, spectacles, and goggles. No. 157,482; May 23.
Grasselli Chemical Company, The, Cleveland, Ohio. Dyes and dyestuffs. No. 154,508; May 23.
Great Northern Fur Dyeing and Dressing Co. (See Pierini, Attilio.)
Green, A. P., Fire Brick Co., Mexico, Mo. Fire-brick cement. No. 158,977; May 23.
Grinnell Games. (See Blank, Vernon D.)
Grinnell Washing Machine Company, Grinnell, Ia. Washing machines. No. 158,424; May 23.
Hallam, Ralph M., doing business as Chicago Piston Ring Co. (not Inc.), Chicago, Ill. Piston rings. No. 153,350; May 23.
Harker, C. R., Stagg & Morgan, Limited, doing business as Peldo Works, London, England. Skin cream. No. 154,145; May 23.
Harley Machine Company, Chicago, Ill. Metal clothes containers for washing machines. No. 157,421; May 23.
Harris, Meyer, doing business as Zoodack Manufacturing Co., Aiken, S. C. Salve for piles, burns, sore throat, etc. No. 158,232; May 23.
Harris, Moses H., New York, N. Y. Eyeglasses and spectacles for athletic purposes. No. 157,524; May 23.
Hawkins Mortgage Co., Portland, Ind. Monthly publication. No. 159,023; May 23.
Horton Manufacturing Co., The, Bristol, Conn. Steel shafts for golf clubs. No. 157,573; May 23.
Hulse, A. C., Jr., New York, N. Y. Hosiery. No. 151,988; May 23.
Hynds, Therese, New York, N. Y. Corsets. No. 156,448; May 23.
Ideal Baby Shoe Company. (See Day, Adra L.)
Indian Remedy Company, Brockton, Mass. Blood medicine used in the treatment of gonorrhea and clap and asthma medicine. No. 156,832; May 23.
Ingersoll, Robt. H., & Bro., New York, N. Y. Watches and clocks. Nos. 158,474–5; May 23.
Ingram, Frederick F., Company, Detroit, Mich. Pharmaceutical preparations. No. 155,096; May 23.
Ingram, Frederick F., Company, Detroit, Mich. Pharmaceutical preparations. No. 155,098; May 23.
Irondequoit Fruit Juice Co., Irondequoit, N. Y. Beverage, and sirups for making same. No. 158,042; May 23.
Isaacs, Tula E., doing business as Dorothy Perkins Toilet Goods Company, Dallas, Tex. Face-cleansing and face creams, antiseptic beauty balm, hair tonic, hair-curling fluid. No. 155,890; May 23.
Jaburg-Miller Co. Inc., New York, N. Y. Monthly catalogue. No. 159,319; May 23.
Johnson, R. D., Milling Company of Allegany County, The, Cumberland, Md. Wheat flour. No. 163,220; May 23.
Jourion, Alexis, Brussels, Belgium. Perfumery. No. 134,650; May 23.
Juvenile Shoe Corporation of America, The, Carthage, Mo. Leather boots and shoes. No. 158,044; May 23.
K-W Shoe Co., The, Chicago, Ill. Men's leather shoes. No. 157,926; May 23.
Kane Sales Company, The, Centralia, Wash. Pneumatic shock absorbers. No. 154,314; May 23.
Karp, Joseph H., New York, N. Y. Hair bleach. No. 158,128; May 23.
Kashmere & Roberts, Wilkes-Barre, Pa. Coaster vehicles. No. 159,758; May 23.
Katz & Ogush, Inc., New York, N. Y. Watches and watch movements. No. 158,478; May 23.
Kayser, Julius, & Co., New York, N. Y. Stockings. No. 155,439; May 23.
Kenilworth Manufacturing Co. Limited, The, London, England. Jointings and packings for engines. No. 150,452; May 23.
Kerrick, Walter B., Los Angeles, Calif. Vehicle wheels. No. 152,375; May 23.
Kilchenmann Frères, La Chaux-de-Fonds, Switzerland. Watches and parts of watches. No. 161,194; May 23.
King-Ferree Co. Inc., Greensboro, N. C. Cigars. No. 158,426; May 23.
Kohn, Adler & Co., Philadelphia, Pa. Hats for women. No. 153,089; May 23.
Kohnstamm, H., & Co., New York, N. Y. Union and acid dyes. No. 157,928; May 23.
Komada, Tomisaburo, Yokohama, Japan. Canned and bottled crab. Nos. 157,574–5; May 23.
Komfy Products Company, Chicago, Ill. High chairs for children. No. 161,322; May 23.
Lawndale Wholesale Grocery Co., Chicago, Ill. Canned tomatoes. No. 157,157; May 23.
L'Euterapica, Turin, Italy. Remedy for the treatment of blennorrhea. No. 153,929; May 23.
Levy & Weiss Shoe Co., New York, N. Y. Leather, fabric, and rubber shoes, and combinations of same. No. 157,577; May 23.
Lob, Hubbart & Silverman, New York, N. Y. Men's and young men's suits and coats. No. 153,559; May 23.
Lockwood Studios, Santa Monica, Calif. Incense burners. No. 147,113½; May 23.
McKone Tire & Rubber Company, The, Millersburg, Ohio. Rubber tires for automobiles. No. 159,372; May 23.
Maass & Kemper, Inc., Baltimore, Md. Middy blouses, children's dresses, boys' wash suits. No. 156,394; May 23.
MacPherson, Warren, doing business as Cambridge Rubber Company, Cambridge, Mass. Raincoats. No. 156,455; May 23.
Majestic Manufacturing Company, St. Louis, Mo. Proofing boxes, pan racks, sanitary tables, display counters, etc. No. 157,767; May 23.
Markman, Simon, New York, N. Y. Face and lip rouge. No. 157,936; May 23.
Markman, Simon, New York, N. Y. Cosmetic for treating the eyebrows. No. 157,937; May 23.
Marshall Field & Company, Chicago, Ill. Alarm clocks. No. 161,536; May 23.
Marx, Louis N., New York, N. Y. Imitation pearl necklaces. No. 156,395; May 23.
May Hosiery Mills, The, Burlington, N. C. Men's, women's, and children's hosiery. No. 153,611; May 23.
Menter Co., Inc., The, New York, N. Y. Blank home budget books. No. 159,160; May 23.
Merforol Company. (See Eggers, Edward L.)
Merrell-Soule Company, Syracuse, N. Y. Powdered milk. No. 158,529; May 23.
Metzler, Henry, New York, N. Y. Ladies' blouses. No. 154,698; May 23.
Miehle Printing Press & Manufacturing Company, Chicago Ill. Printing presses. No. 155,565; May 23.
Milligan, James C., Pittsburgh, Pa. Toy dart or arrow. No. 159,714; May 23.
Mills Brothers Company, The, doing business as The American Products Company, Cincinnati, Ohio. Tooth, hair, shaving, bath, and vegetable brushes. No. 161,934; May 23.
Mme. Leo Products Co. (See Rowden, Mary E.)
Mock & Judson, New York, N. Y. Hosiery. No. 155,901; May 23.
Montague, W. R., Company, The, La Crosse, Wis. Chocolate-covered nut bar. No. 157,528; May 23.
Moore, Kenneth W., Chicago, Ill. Deodorants. No. 156,591; May 23.
Mundy, Judson, Cleveland, Ohio. Rotating chain-driven locomotives, steam engines, etc. No. 153,517; May 23.
Myers & Parker, San Francisco, Calif. Hair pomade. No. 156,396; May 23.
National Consolidated Drug Co., Great Falls, Mont. Family remedies. No. 150,368; May 23.
National Exchange Club, The, Toledo, Ohio. Monthly publication. No. 158,994; May 23.
National Mattress Co. Inc., Lynchburg, Va. Iron beds, bed springs, cots, mattresses, pillows, etc. No. 157,951; May 23.
Neal & Hyde, Incorporated, Syracuse, N. Y. Hosiery. No. 149,924; May 23.
Nestlé's Food Company, New York, N. Y. Ice cream. No. 158,431; May 23.
North American Hygienic Company, Inc., The, San Juan, P. R. Dentifrice. No. 144,245; May 23.
North American Wood Products Corporation, New York, N. Y. Wall boards, blinds, doors, windows, moldings, etc. No. 141,796; May 23.
Nu-Iron Laboratory Incorporated, The, Denver, Colo. General medicinal tonic. No. 153,562; May 23.
Nunnally Company, The, Atlanta, Ga. Candy. No. 157,104; May 23.
Ohio Rubber Co., The, Cleveland, Ohio. Felt slippers. Nos. 151,844–5; May 23.
Ogus, Rabinovitch and Ogus Co., Chicago, Ill. Hats for ladies, misses, and children. No. 153,048; May 23.
O'Rourke, Eubank's Hat Co., San Francisco, Calif. Men's hats. No. 156,014; May 23.
Pacific Nut Butter Company, Salt Lake City, Utah. Oleomargarine. No. 139,750; May 23.
Pacific Trading Co., Inc., San Francisco, Calif. Rice. No. 162,045; May 23.
Palmer, Walter C., doing business as W. R. Palmer & Co., Cincinnati, Ohio. Washboards. No. 159,880; May 23.
Parke, Davis & Company, Detroit, Mich. Germicides and antiseptics. No. 158,332; May 23.
Patten Manufacturing Company, Chattanooga, Tenn. Air pumps. No. 150,332; May 23.
Peace Pillow Co., The. (See Wanklyn, Herbert A.)
Peer-amid Company, The, Philadelphia, Pa. Hosiery. No. 155,447; May 23.
Peldo Works. (See Harker, C. R., Stagg, and Morgan.)
Perkins Corporation, Mishawaka, Ind. Electric light and power plants. No. 156,596; May 23.
Perrin, Arthur, Brookline, Mass. Binocular telescopic instruments. No. 157,583; May 23.
Perrin, Arthur, Brookline, Mass. Binocular optical instruments. No. 158,834; May 23.
Pierini, Attilio, doing business as Great Northern Fur Dyeing and Dressing Co., Brooklyn, N. Y. Dyed rabbit skins. No. 145,703; May 23.
Pocono Rubber Cloth Company, Trenton, N. J. Waterproofed and rubberized fabrics. No. 158,643; May 23.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Pope, Virginia, New York, N. Y. Outer garment for women and girls to be worn as a dress or as knickerbockers. No. 154,887; May 23.
Puritan Products Company. (See Cohen, Abraham.)
Quaker City Chocolate & Confectionery Company, Philadelphia, Pa. Hard and soft candies and chocolates. No. 157,634; May 23.
Quigley Furnace Specialties Co., Incorporated, New York, N. Y. Calcined pulverized material. No. 157,586; May 23.
Raisin Products Co. of America, The, New York, N. Y. Tablets for treatment of anæmia, loss of appetite, and as a general tonic. No. 157,734; May 23.
Redpath, Cargill W., Kansas City, Mo. Laxative. No. 158,335; May 23.
Reliable Dry Goods Co. (See Brodinsky, David.)
Remer-Dell Products Corporation, The, Columbia, S. C. Beverages and sirups for making same. No. 146,980; May 23.
Republic Rubber Corporation, The, Youngstown, Ohio. Shoe soles and heels made of rubber or composition rubber. No. 141,925; May 23.
Roberts, Ella L., Los Angeles, Calif. Combination camisole and drawers. No. 149,979; May 23.
Rodenberg, M. S., Co., The, Providence, R. I. Mechanically-operated lead pencils. No. 158,057; May 23.
Rose Mfg. Company. (See Samuels, Zigmund.)
Rowden, Mary E., trading as Mme. Leo. Products Co., Seattle, Wash. Facial pack pastes. No. 158,094; May 23.
Rubber-Weld Co., Boston, Mass. Repair outfits comprising patches of sheet rubber and adhesive material. No. 142,034; May 23.
Samuels, Albert S., Co., The, San Francisco, Calif. Finger rings and precious-metal ware. Nos. 151,335–6; May 23.
Samuels, Zigmund, doing business as Rose Mfg. Company, Boston, Mass. Underwear, nightdresses, bloomers, aprons, children's play dresses, etc. No. 151,637; May 23.
Schmidt, Henry A., College Point, N. Y. Stylographic ink pencils. No. 144,744; May 23.
Schrumm-Schrumm Co., Chicago, Ill. Extracts to be used for beverage purposes. No. 158,337; May 23.
Security Rubber and Belting Company, Chicago, Ill. Belting. No. 158,696; May 23.
Sherwin-Spinner Company, New York, N. Y. Cuffs and shirts. No. 154,092; May 23.
Shifman Brothers, Newark, N. J. Mattresses. No. 157,963; May 23.
Shoe and Leather Reporter Co., Boston, Mass. Periodical published monthly. No. 158,262; May 23.
Shuit, W. E., Incorporated, Passaic, N. J. Medicinal preparations for colds, influenza, and la grippe. No. 158,406; May 23.
Sioux Candy Co., Sioux City, Iowa. Chocolate candy. No. 157,448; May 23.
Slattery, E. T., Company, Boston, Mass. Toothbrushes. No. 161,797; May 23.
Smith & Dove Mfg. Co., Andover, Mass. Linen thread. No. 158,195; May 23.
Smith, Louis H., Chicago, Ill. Automobile radiator caps. No. 158,650; May 23.
Society of Chemical Industry in Basle, Basel, Switzerland. Chemical and pharmaceutical preparation. No. 158,158; May 23.
Sorg Manufacturing Company. (See Finkel, Abraham D.)
Sozol Limited, London, England. Anticorrosive chemical compositions or compounds. No. 157,079; May 23.
Spokesman Publishing Company, The, Cincinnati, Ohio. Journal published monthly. No. 159,224; May 23.
Standard Oil Company, (Incorporated in New Jersey,) Bayonne, N. J. Asphaltums, asphalt macadams, road oils, etc. No. 157,180; May 23
Stearns & Foster Company, The, Lockland, Ohio. Mattresses Nos. 160,088–9; May 23.
Stearns & Foster Company, The, Lockland, Ohio. Mattresses. Nos. 160,091–2; May 23.
Steinberger Bros. Lobl Co., New York, N. Y. Leather and fabric gloves. No. 153,411; May 23.
Steinberger Bros. Lobl Co., New York, N. Y. Leather and fabric gloves. Nos. 154,672–3; May 23.
St. Joseph Tent & Awning Co., St. Joseph, Mo. Firemen's heavy duck night coats, duck night pants, hunting coats, and white-duck packers' frocks. No. 153,702; May 23.
Street & Smith Corporation, New York, N. Y. Magazines issued monthly. No. 158,654; May 23.
Street & Smith Corporation, New York, N. Y. Magazines issued weekly. No. 158,656; May 23.
Supreme Pyramid Ancient Egyptian Order of Sciots, San Francisco, Calif. Fezes. No. 148,770; May 23.
Tamor Brothers, New York, N. Y. Hosiery. No. 152,815; May 23.
Texas Gulf Sulphur Company, New York, N. Y. Sulphur inoculated with bacteria. No. 157,114; May 23.
Texas Gulf Sulphur Company, New York, N. Y. Sulphur and sulphur inoculated with bacteria. No. 157,116; May 23.
Textileather Company, New York, N. Y. Substitute leather, No. 161,512; May 23.
Uncle Sam Chemical Co., New York, N. Y. Exterminating fluids for exterminating roaches, bedbugs, and disinfectants. No. 150,643; May 23.
Union Bed and Spring Company, Chicago, Ill. Bed springs. No. 161,908; May 23.
United States Fiber Products Company, Sacramento, Calif. Fibrous material used for heat and sound insulation and sheathing. No. 144,756; May 23.
United States Gypsum Company, Chicago, Ill. Calcined gypsum, plaster of Paris, wall plaster, etc. No. 159,439; May 23.
United States Gypsum Company, Chicago, Ill. Calcined gypsum, plaster of Paris, wall and finishing plaster. No. 159,442; May 23.
United States Gypsum Company, Chicago, Ill. Calcined gypsum, plaster of Paris, wall and cement plaster. No. 159,447; May 23.
United States Gypsum Company, Chicago, Ill. Calcined gypsum, plaster of Paris, and wall plaster. No. 159,448; May 23.
United States Gypsum Company, Chicago, Ill. Calcined gypsum, plaster of Paris, wall plaster, etc. No. 159,635; May 23.
United States Hair Net Co., Chicago, Ill. Hair nets. No. 156,121; May 23.
Uradia Company, Houston, Tex. Liquids for charging and recharging batteries. No. 153,629; May 23.
Utica Bedding Factory, Inc., Utica, N. Y. Mattresses. No. 157,391; May 23.
Utica Bedding Factory, Inc., Utica, N. Y. Mattresses. No. 158,692; May 23.
Wagner Manufacturing Company, Ardmore, Okla. Popcorn balls. No. 157,789; May 23.
Walbaum, Goulden & Co., Reims, France. Champagne wines. Nos. 154,340–1; May 23.
Wallin Mfg. Co., St. Paul, Minn. Shoe-shining stools and cabinets. No. 158,738; May 23.
Wanamaker, William H., Philadelphia, Pa. Men's and young men's overcoats. No. 154,944; May 23.
Wanklyn, Herbert A., trading as The Peace Pillow Co., London, England. Eau de cologne. No. 124,325; May 23.
Waugh, James H., doing business as Waughrine Medicine Co., Washington, D. C. Liniment for use in treatment of rheumatism. No. 158,272; May 23.
Waughrine Medicine Co. (See Waugh, James H.)
Webers, Milwaukee, Wis. Candy. No. 157,702; May 23.
Weiner, Alphonse W., Inc., New York, N. Y. Silverware, pens, and jewelry. No. 149,158; May 23.
West Disinfecting Company, New York, N. Y. Liquid disinfectants, antiseptics, and purifiers. No. 146,283; May 23.
Western Clock Co., Peru, Ill. Clocks, watches, and component parts thereof. No. 158,908; May 23.
Western Shirt Company, The, New York, N. Y. Work shirts. No. 131,848; May 23.
Western Tool & Manufacturing Company, The, Springfield, Ohio. Tool holder, expanding mandrels, vises, clamps, etc. No. 145,196; May 23.
Wholesale Distributors Co., The, Chicago, Ill. Canned fruits and vegetables. No. 157,464; May 23.
Wholesale Distributors Co., The, Chicago, Ill. Canned fruits, vegetables and fish, tomato catsup, fruit preserves. No. 157,465; May 23.
Widoe, Walter W., Omaha, Nebr. Smokers' pipes. No. 161,216; May 23.
Wilcox, M. I., Company, The, Toledo, Ohio. Rubber, fabric, and leather belting. No. 157,199; Nov. 23.
Zincloros Chemical Company, Denver, Colo. Mouth wash. No. 158,353; May 23.
Zolla, Max A., Chicago, Ill. Watches. No. 160,377; May 23.
Zoodack Manufacturing Co. (See Harris, Meyer.)

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED ON THE 23D DAY OF MAY, 1922.

NOTE.—Arranged in accordance with the first significant character or word of the name. (In accordance with city and telephone directory practice.)

Acids, Complex silver salts of α-amino. M. Guggenheim No. 1,417,167; May 23.
Advertising novelty and toy. E. M. Hansley. No. 1,417,061; May 23.
Aerial bomb. T. J. Cahill. No. 1,417,299; May 23.
Aeroplane, Multipropelled. J. Ardo. No. 1,417,017; May 23.
Agricultural implements, Disk-adjusting mechanism for. D. A. Schutt. No. 1,417,207; May 23.
Airplanes, Chassis structure for. W. H. Phipps. No. 1,416,747; May 23.
Alarm: *See*—
Automobile alarm.
Alcohol, Producing benzyl. R. E. Montonna. No. 1,416,859; May 23.
Alloy. A. U. Randall. No. 1,417,348; May 23.
Aluminum-soldering composition. F. A. Albertus. No. 1,416,924; May 23.
Ammonium chloride from solution, Recovering. N. T. Bacon. No. 1,416,772; May 23.
Ammunition, Fixed. L. L. Driggs, Jr. No. 1,417,460; May 23.
Amusement device. M. A. Bruno. No. 1,416,783; May 23.
Animal poke. O. H. Harris. No. 1,417,245; May 23.
Anthraquinone. Manufacture of. C. Conover and H. D. Gibbs. No. 1,417,367; May 23.
Arms, Attachment for artificial. W. A. McElroy. No. 1,417,267; May 23.
Auto signal. L. M. Kolb. No. 1,417,388; May 23.
Autohemic therapy potentizer. T. H. Warren. No. 1,417,219; May 23.
Automatic slack adjuster. N. J. Sauvage. No. 1,416,980; May 23.
Automatic stabilizing device. A Trapp. No. 1,416,911; May 23.
Automobile accessory. C. W. Schoppe. No. 1,417,416; May 23.
Automobile alarm. W. A. Taylor. No. 1,417,217; May 23.
Automobile brake-shoe construction, Pressed-steel. W. Q. Howell and C. B. Rader. No. 1,417,069; May 23.
Automobile bumper. E. R. Jones. No. 1,416,834; May 23.
Automobile door lock. B. E. Taylor. No. 1,417,423; May 23.
Automobile radiator. T. J. Kehoe. No. 1,416,837; May 23.
Automobile radiator alarm. K. Keller. No. 1,417,332; May 23.
Automobile safety device. M. Doujak. No. 1,417,305; May 23.
Automobile turntable. T. E. Imler. No. 1,417,384; May 23.
Automobiles, Automatic timer for. H. V. Johnson. No. 1,416,833; May 23.
Automobiles, Permutation lock for. A. P. Litrem. No. 1,417,340; May 23.
Automobiles, Power jack for. E. Moses. No. 1,416,736; May 23.
Automobiles, Safety driving mirror for. E. L. Morris. No. 1,416,966; May 23.
Back brace. R. E. Kelly. No. 1,417,250; May 23.
Bag: *See*—
Hand bag.
Ballot tally sheet. R. G. Cotter. No. 1,416,792; May 23.
Balus'er-railing construction. A. S. Hughes. No. 1,416,957; May 23.
Bank, Savings. J. H. Greer. No. 1,417,164; May 23.
Barber's equipment receptacle. G. D. Vought. No. 1,416,767; May 23.
Barrel, Knockdown. G. A. Le Fevre. No. 1,417,337; May 23.
Batteries, Making electric storage. H. M. Williams. No. 1,417,007; May 23.
Battery: *See*—
Electric battery.
Battery construction. A. L. Muren. No. 1,416,738; May 23.
Bearing. A. Kingsbury. No. 1,417,072; May 23.
Bearing. C. F. Sherwood. No. 1,416,988; May 23.
Bearing, Antifriction. H. C. Knowles. No. 1,416,838; May 23.
Bearing reamer and babbitting bar, Universal alignment. K. R. Peters. No. 1,417,278; May 23.
Bearing, Roller. J. Bingham. No. 1,416,680; May 23.
Bearings, Supporting means for shafts. W. J. Bayrer. No. 1,416,776; May 23.
Bed, Folding camp. J. Kibler, Jr. No. 1,417,253; May 23.
Belt-shifting mechanism. W. J. Bayrer. No. 1,416,778; May 23.
Bend and method and apparatus for making same, Return. C. K. Lassiter and J. Kindervater. No. 1,417,396; May 23.
Bends, Dies for making return. C. K. Lassiter and J. Kindervater. No. 1,417,394; May 23.
Bends, Making return. C. K. Lassiter and J. Kindervater. No. 1,417,393; May 23.
Bicycles and the like, Rear package carrier for. C. A. Anderson. No. 1,417,223; May 23.
Bin: *See*—
Grain bin.
Block: *See*—
Building block. Paving block.
Blotter. G. D. Parker. No. 1,416,863; May 23.
Boiler. P. H. Ferrier, Jr. No. 1,416,805; May 23.
Boiler-fur preventative. O. L. K. Andersen. No. 1,416,925; May 23.
Boiler with superheater. B. Broido. No. 1,417,023; May 23.
Boiler with superheater, Water tube. B. Broido. No. 1,417,024; May 23.
Boilers and applying same, Mud ring for. F. C. Stimmel. No. 1,416,762; May 23.
Bolt: *See*—
Expansion bolt.
Bolt, Expansion. D. R. Sherwood. No. 1,417,209; May 23.
Boring drill, Rotary. F. L. O. Wadsworth. No. 1,417,363; May 23.
Bottle cover, Milk-. J. Senio. No. 1,417,282; May 23.
Bottle receptacle and mail box, Combined milk-. J. Horvath. No. 1,417,382; May 23.
Box: *See*—
Exhaust box. Garment box.
Box and making the same. L. Binder. No. 1,417,295; May 23.
Box bodies, Mechanism for arranging and feeding cylindrical. J. C. Thom. No. 1,416,763; May 23.
Box fastening. L. Binder. No. 1,417,296; May 23.
Box shoulders, Machine for gluing. A. J. Morrison. No. 1,417,195; May 23.
Brace: *See*—
Back brace.
Brake. J. W. White. No. 1,417,435; May 23.
Brake-lever connection. J. E. Redford. No. 1,417,203; May 23.
Brake mechanism, Automatic. H. F. Gerhart. No. 1,417,241; May 23.
Brake or clutch lining. J. H. Saris. No. 1,416,979; May 23.
Brush, Fountain shaving. V. J. McNamara. No. 1,417,082; May 23.
Buckle, Belt. L. W. Shields. No. 1,416,892; May 23.
Building block. J. A. Wickson. No. 1,416,919; May 23.
Building construction. F. R. Hahn. No. 1,416,709 May 23.
Building structure. E. Heath. No. 1,416,821; May 23.
Bundling machine. W. O. Jones. No. 1,417,329; May 23.
Burner: *See*—
Oil burner. Oil-gas burner.
Burner. R. F. Metcalfe. No. 1,416,734; May 23.
Bushings and similar articles, Manufacturing. J. W. Leighton. No. 1,416,846; May 23.
Butchering stand. C. M. Duke. No. 1,417,234; May 23.
Butt-inle'-cutting device. A. C. Vogt. No. 1,417,431; May 23.
Buttonholes, Making. W. Duesler. No. 1,416,801; May 23.
Button parts or the like, Method and apparatus for rolling in the neck in press-. P. Pondorf. No. 1,417,199; May 23.
Cabinet, Kitchen. C. Mahoney. No. 1,417,401; May 23.
Cake-forming machine. J. Fousek. No. 1,417,156; May 23.
Calculating machine. R. T. Piscicelli. No. 1,416,974; May 23.
Calendar. S. Thomas. No. 1,417,424; May 23.
Calico-printing machine. T. Hindle. No. 1,416,712; May 23.
Cam-holder frame. M. R. Kester. No. 1,416,959; May 23.
Camera, Reflex photographic. P. G. Mason. No. 1,416,854; May 23.
Can closure. R. E. Carter. No. 1,417,141; May 23.
Can filling and closing machine. W. E. Taylor. No. 1,416,997; May 23.
Car. W. A. Dorsey. No. 1,417,044; May 23.

Car-control equipment, Safety. C. C. Farmer. No. 1,417,238; May 23.
Car, Convertible dump. D. Hindahl. No. 1,416,711; May 23.
Car, Mine. E. L. Bailey. No. 1,417,131; May 23.
Car, Mine. W. A. Dorsey. No. 1,417,043; May 23.
Car pusher. B. F. Schmidt and T. D. Heyl. No. 1,416,755; May 23.
Car, Railway. W. F. Cremean. (Reissue.) No. 15,360; May 23.
Car truck. S. B. Brilhart. No. 1,417,135; May 23.
Car wheel, Mine-. C. Malt. No. 1,417,085; May 23.
Cars, Check holder for mine. J. E. Whewell and H. I. Yoder. No. 1,417,006; May 23.
Cars, Emergency structure for railway. H. W. Lindsey. No. 1,417,185; May 23.
Cars, Suspension means for motor. A. Deschamps. No. 1,416,797; May 23.
Carbon, Refining crude. C. F. C. Herting. No. 1,416,955; May 23.
Carburetor. F. C. Mock. Nos. 1,416,857–8; May 23.
Carburetor. E. F. Utz. No. 1,416,913; May 23.
Card holder. F. Haskel. No. 1,417,319; May 23.
Case: *See*—
Thermometer case. Vanity case.
Casting mold for concrete hulls. E. A. Larsen. No. 1,416,844; May 23.
Ceiling and floor construction. E. E. Hall. No. 1,417,056; May 23.
Cementitious products, Manufacture of hollow. A. O. Crozier. No. 1,416,691; May 23.
Centrifugal separator. C. H. Holmgren. No. 1,417,064; May 23.
Ceramic wares and apparatus therefor, Burning. T. G. McDougal. No. 1,416,726; May 23.
Ceramic wares, Burning. T. G. McDougal. No. 1,416,727; May 23.
Chain pipe wrench. G. W. Bufford. No. 1,416,685; May 23.
Chemical composition. C. S. Eppley. No. 1,417,047; May 23.
Chicken feeder. O. M. Bennett. No. 1,417,226; May 23.
Chiropractic sanitary paper container. N. Sandals. No. 1,416,882; May 23.
Chuck for lathes, etc. J. W. Heigh. No. 1,417,169; May 23.
Cigar-banding machine. R. D. Schoenwetter. Nos. 1,416,982–3; May 23.
Cigar-holder case, pipe case, or similar receptacle. J. N. Whitehouse. No. 1,417,121; May 23.
Cigar lighter. F. W. Strubing. No. 1,417,422; May 23.
Cigarette and match case, Combination. W. H. Frederick. No. 1,417,160; May 23.
Cinematographic apparatus. W. B. Wescott. No. 1,417,005; May 23.
Ciphering device. G. S. Vernam. No. 1,416,765; May 23.
Circuit making and breaking device. E. H. Piersen. No. 1,416,973; May 23.
Cisterns, Pumping apparatus for. T. Sarlls. No. 1,417,415; May 23.
Clamp: *See*—
Miter clamp.
Clarinet barrel. A. J. Sinclair. No. 1,416,898; May 23.
Clasp: *See*—
Corset clasp. Lingerie clasp.
Cleaner: *See*—
Lawn cleaner.
Cleaners, Dust collector for pneumatic. D. B. Replogle. No. 1,416,876; May 23.
Cleaning and brushing machine, Fruit. R. D. McDill. No. 1,417,266; May 23.
Clock movement, Intermittent-alarm. J. R. Putnam. No. 1,416,870; May 23.
Clip: *See*—
Cloth clip. Toe clip.
Cloth clip. R. W. Armstrong. No. 1,417,129; May 23.
Clutch-pedal lock. R. R. Burkhart. No. 1,417,138; May 23.
Coach ventilator. D. McIntyre. No. 1,417,268; May 23.
Coaster. R. W. Parkes. No. 1,416,864; May 23.
Coating machine. R. D. Schoenwetter. No. 1,416,984; May 23.
Coating process and apparatus. C. T. Davis. No. 1,416,796; May 23.
Cock, Plug. J. C. Martin, Jr. No. 1,416,732; May 23.
Coffee pot or urn. C. D. Graves. No. 1,417,243; May 23.
Combination lock, Secret. J. Ciotola and D. Polidoro. No. 1,416,790; May 23.
Combing machine. J. Fossel. No. 1,416,951; May 23.
Combing machine. J. W. Nasmith. No. 1,416,739; May 23.
Commutators, Surfacing machine for. L. A. Schauer and E. C. Myers. No. 1,416,981; May 23.
Compass, Aeronautical. K. A. Kretschmar. No. 1,416,841; May 23.
Compressing machine with automatic oil return. A. O. Girard. No. 1,416,705; May 23.
Compressor. J. H. Dennedy. Nos. 1,416,695–6; May 23.
Concentrator. J. B. McCarthy. No. 1,417,189; May 23.
Concertina keyboard. F. S. Pitt-Taylor. No. 1,417,107; May 23.
Concrete columns or posts, Construction of reenforced. F. W. Bradshaw. No. 1,417,445; May 23.
Concrete wall block construction, Hollow. J. M. McCurry. No. 1,417,399; May 23.
Condiment holder. E. F. Blair. No. 1,417,444; May 23.
Confectionery-coating machine. J. Massarella. No. 1,417,086; May 23.
Confections of the coated type, Manufacture of. N. E. Brigham. No. 1,417,446; May 23.
Connecting rod. J. R. Du Priest. No. 1,417,307; May 23.
Containers, Means for manipulating collapsible tubular. M. Maer. No. 1,417,271; May 23.
Control apparatus. E. R. Evans. No. 1,416,804; May 23.
Conveyer, Pneumatic. J. A. Gasteiger. No. 1,417,052; May 23.
Cooking utensil, Electrically-heated. H. Kruesheld. No. 1,417,074; May 23.
Corn-husking machine. H. L. Smith. No. 1,417,356; May 23.
Corn stringer. C. M. Putnam. No. 1,416,752; May 23.
Cornstarch and products therefrom, Manufacture of. A. W. H. Lenders and P. W. Allen. No. 1,417,467; May 23.
Corset clasp. G. E. McNamara. No. 1,416,850; May 23.
Couch, Box. J. Avril. No. 1,417,442; May 23.
Coupling: *See*—
Hose coupling. Shaft coupling.
Inflating coupling.
Coupon-cutting device. H. Detjen. No. 1,416,800; May 23.
Cover to a casing, Apparatus for applying a. C. Fisher. No. 1,417,155; May 23.
Crane, Portable. E. H. Kelley and G. A. Stewart, Jr. No. 1,416,958; May 23.
Crusher: *See*—
Stone crusher.
Cultivating tool, Soil-. M. Strom and E. Hoglund. No. 1,416,906; May 23.
Cultivator. F. G. Hengst. No. 1,417,381; May 23.
Cultivator, Power-driven. T. S. Stephens. No. 1,416,993; May 23.
Curler. K. McClaire. (Reissue.) No. 15,363; May 23.
Cutter: *See*—
Potato cutter.
Cutting and mixing machine. C. W. Hottman. No. 1,417,065; May 23.
Cutting machine. J. B. Hadaway. No. 1,416,707; May 23.
Cutting machine. A. W. Tyler. No. 1,417,117; May 23.
Cutting tool. J. Labonté. No. 1,416,843; May 23.
Damper-control device. W. L. Leedy. No. 1,417,259; May 23.
Deck construction, Rear. A. Gravel. No. 1,416,816; May 23.
Decoy. J. Q. Adams. No. 1,417,441; May 23.
Dehydrating apparatus. J. D. Cox. No. 1,416,793; May 23.
Delivering or bagging apparatus. C. A. Defauconpret. No. 1,417,040; May 23.
Dental instrument. G. Evans. Nos. 1,417,236–7; May 23.
Denture and application. A. Pimienta. No. 1,417,345; May 23.
Detachable support. J. B. O'Connor. No. 1,416,969; May 23.
Direction indicator. J. E. Kelsey. No. 1,417,251; May 23.
Dishwasher. F. R. Perkins. No. 1,416,744; May 23.
Dishwashing machine. J. E. Gagen. No. 1,417,162; May 23.
Disk, Universal putting. C. B. Cory. No. 1,417,458; May 23.
Disk wheel. E. R. Draver. No. 1,417,233; May 23.
Dispensing device. J. Dobis. No. 1,417,042; May 23.
Display stand. F. C. Bloom. No. 1,416,935; May 23.
Ditching device. J. C. Starling. No. 1,416,991; May 23.
Divider. F. H. Sharpe. No. 1,416,987; May 23.
Door and hinge construction. J. Freyberg and L. F. Wubbolding. No. 1,416,812; May 23.
Door latch. J. Kuczkowski. No. 1,417,391; May 23.
Door-operating device, Electrical. J. R. Kaiserman. No. 1,417,173; May 23.
Door, Revolving. J. M. Friedland. No. 1,417,372; May 23.
Door stop and holder. M. H. Force. No. 1,416,703; May 23.
Draft appliance. E. G. Shockey. No. 1,417,112; May 23.
Draft attachment. R. R. Bowers. No. 1,416,681; May 23.
Drawing instrument. C. A. Green and H. F. Schuh. No. 1,417,375; May 23.
Drier: *See*—
Fertilizer drier.
Drier. K. Ladisch. No. 1,416,960; May 23.
Drill: *See*—
Boring drill. Grinding-machine drill.
Drilling machine. W. J. Bayrer. No. 1,416,777; May 23.
Drilling machine, Metal-. F. K. Landgraf. No. 1,417,181; May 23.
Drum switch, Snap. C. F. Smith. No. 1,417,284; May 23.
Dust collector. E. H. Stroud. No. 1,416,995; May 23.
Dynamometer. C. M. Eason. No. 1,417,462; May 23.
Dynamometer recording instrument. C. M. Eason. No. 1,417,461; May 23.
Ear-tinning machine. W. E. Burns. No. 1,417,448; May 23.
Educational apparatus. W. P. Weiss. No. 1,417,434; May 23.
Egg container. M. F. Biernd. No. 1,416,934; May 23.
Elastic roller. K. Fukuda. No. 1,417,240; May 23.
Electric battery. H. F. French. No. 1,416,704; May 23.
Electric-candle-lighting fixture. W. R. Kahns. No. 1,417,330; May 23.
Electric furnace. H. de Nolly. No. 1,417,303; May 23
Electric heater. H. Kruesheld. No. 1,417,073; May 23.

Electric heater. J. R. Quain. No. 1,416,872; May 23.
Electric heater. M. Simon. No. 1,416,897; May 23.
Electric heater. L. J. Tracy. No. 1,417,427; May 23.
Electric heater. S. M. and J. H. Carmean. No. 1,416,688; May 23.
Electric heating apparatus. T. D. Finizio. No. 1,417,154; May 23.
Electric illumination. W. H. Cook. No. 1,417,457; May 23.
Electric regulation. J. L. Creveling. No. 1,417,143; May 23.
Electric switch. A. H. Nero. No. 1,417,405; May 23.
Electric toaster. P. K. Stehman. No. 1,416,992; May 23.
Electrical heater. H. H. Moreton. Nos. 1,416,963–5; May 23.
Electrical recording apparatus. R. W. Press and C. W. Schwenzfeier. No. 1,416,751; May 23.
Electrical riveting. A. B. Rypinski. (Reissue.) No. 15,364; May 23.
Electrolysis. W. E. Bailey. No. 1,416,929; May 23.
Electrolytic apparatus and method. C. Dantsizen. No. 1,416,692; May 23.
Electrometer. F. R. Sommer. No. 1,417,114; May 23.
Elevator: *See*—
Tray elevator.
Elevator lock. W. S. Campbell. Nos. 1,417,449–51; May 23.
Embroidering machines, Device for driving the scallop mechanism in. G. Sieber. No. 1,416,894; May 23.
Emery ring. D. F. McGovern. No. 1,416,728; May 23.
Enamel from enameled metal articles, Removing. W. E. Patch. No. 1,416,865; May 23.
Engine: *See*—
Internal-combustion engine.
Engine-cylinder-cooling means. A. W. Caps. No. 1,417,028; May 23.
Engine starter. Internal-combustion-. E. L. Klise. No. 1,416,720; May 23.
Engine stop gear. D. Cockburn and D. MacNicoll. No. 1,416,791; May 23.
Engines, Apparatus for admitting additional heated air into internal-combustion. V. Yrureta. No. 1,417,127; May 23.
Engines, Apparatus for feeding liquid fuel to internal-combustion. S. L. J. Vindrier. No. 1,416,915; May 23.
Engines, Magneto ignition apparatus for internal-combustion. J. Bohli. No. 1,417,134; May 23.
Engines, Scavenging system for internal-combustion. W. H. Fauber. No. 1,417,310; May 23.
Excavator. H. L. Barton. No. 1,416,933; May 23.
Exercising apparatus. J. S. C. Nicholls and M. W. Smith. No. 1,416,741; May 23.
Exhaust box. J. F. Anderson. No. 1,417,224; May 23.
Expansion bolt. H. W. Pleister and J. Karitzky. No. 1,417,198; May 23.
Expansion joint. J. E. Wunderlick. No. 1,417,126; May 23.
Explosive engine attachment. J. T. Ellis and O. A. Kern. No. 1,417,308; May 23.
Eye-testing apparatus and process. C. Sloan. No. 1,417,283; May 23.
Fanning mill. H. A. Stein. No. 1,417,469; May 23.
Fastener. P. Werner. No. 1,417,286; May 23.
Fastening device. H. A. Schmidt. No. 1,416,756; May 23.
Faucet for barrels. L. Bednar and J. Jasus. No. 1,416,779; May 23.
Feeder drum. E. A. H. Jacob. No. 1,416,830; May 23.
Felly forming machine. J. E. Batie. No. 1,416,676; May 23.
Fender: *See*—
Vehicle fender.
Ferrules with wheel spokes, Machine for engaging. J. E. Batie. No. 1,416,677; May 23.
Fertilizer drier. P. J. Hamler. (Reissue.) No. 15,362; May 23.
Film reel. W. F. Gammeter. No. 1,417,313; May 23.
Film-winding device. W. Vollmann. No. 1,417,474; May 23.
Films and printing therefrom, Machine for making gelatine. A. H. Spaulding. No. 1,417,358; May 23.
Firearm. B. B. Holmes. No. 1,416,828; May 23.
Fireproof door. W. C. Broughton. No. 1,416,943; May 23.
Fish-positioning machine. W. F. Butler. No. 1,416,687; May 23.
Fishing tool. D. A. Ball. No. 1,416,930; May 23.
Flagstaff. C. W. Allman. No. 1,416,669; May 23.
Flatiron. Electrically-heated. E. Stranszky. No. 1,417,421; May 23.
Fluid fuel, Burner for. W. Dederich and S. Willner. No. 1,417,146; May 23.
Flushing tank. H. L. Phillips. No. 1,417,280; May 23.
Flux. B. F. Pyle. No. 1,416,871; May 23.
Focusing device. C. E. Godley. No. 1,417,053; May 23.
Folding table. W. S. Graffam. No. 1,416,815; May 23
Food-dispensing apparatus. C. J. Vann. No. 1,416,764. May 23.
Food, Medicine and hygienic. J. C. Richard. No. 1,417,412; May 23.
Food substances to dry powdered form, Reducing semi-fluid. J. C. MacLachlan. No. 1,417,083; May 23.
Foot throttle control. C. A. Deschner. No. 1,416,798; May 23.
Frame: *See*—
Cam-holder frame. Picture frame.
Freight-handling system. E. B. Grace and W. J. Laffey. No. 1,417,242; May 23.
Furnace: *See*—
Electric furnace. Oil-burning furnace.
Gas furnace. Tilting furnace.
Furnace. J. A. Gaskill. No. 1,417,478; May 23.
Furnace. G. H. Gibson. No. 1,417,374; May 23.
Furnace. R. P. Moodie. No. 1,417,095; May 23.
Furnace. H. F. Smith. No. 1,416,990; May 23.
Furnace retort. C. H. Smith and E. B. Edwards. No. 1,417,113; May 23.
Furnaces, Roof construction for reverberatory. A. N. Jette. No. 1,416,716; May 23.
Fuse-cap protector. H. F. Mitzel. No. 1,416,856; May 23.
Galvanometer. C. F. Hindle. No. 1,416,824; May 23.
Game. E. H. Lederer. No. 1,417,336; May 23.
Game apparatus, Batting device for baseball. A. W. Weeden. No. 1,416,918; May 23.
Game, Baseball. S. F. Hines. No. 1,417,063; May 23.
Garment box. R. F. Cuthbert. No. 1,417,144; May 23.
Garment hanger. J. W. Woodward. No. 1,417,009; May 23.
Garter. E. O. Hammerberg. No. 1,417,244; May 23.
Gas-conduit control means, Automatic. H. Jervis. No. 1,416,831; May 23.
Gas furnace. W. C. Peterson. No. 1,416,746; May 23.
Gases containing sulphur dioxide, Enriching metallurgical. G. C. Howard. No. 1,417,066; May 23.
Gases, Process and apparatus for reparation of suspended material from. E. R. Wolcott. No. 1,416,769; May 23.
Gases, Vaporizer for liquefied. E. S. Andrews. No. 1,417,292; May 23.
Gathering and cocking machine. L. Pagel. No. 1,416,972; May 23.
Gauge: *See*—
Micrometer gauge. Printer's type gauge.
Pressure gauge. Tire gauge.
Gauge. A. L. De Leeuw. No. 1,416,694; May 23.
Gauge. H. Volis. No. 1,417,001; May 23.
Gear indicator. T. Farmer, Jr. No. 1,417,048; May 23.
Gear remover or pinion puller. G. T. McClarran. No. 1,417,265; May 23.
Gear shifter. W. G. Stevens, Jr. No. 1,417,213; May 23.
Gearing. W. Stoeckicht. No. 1,416,905; May 23.
Generator: *See*—
Magneto generator.
Glass, Means for guiding molten. R. La France. No. 1,416,725; May 23.
Golf-club separator. H. F. Hatch. No. 1,417,380; May 23.
Grab. J. M. Wellington and D. G. Mackenzie. No. 1,416,768; May 23.
Grain bin, Drying. J. F. Green. No. 1,417,316; May 23.
Grease-plug attachment. F. L. Fisher. No. 1,416,808; May 23.
Grinding machine, Drill-. D. A. Wallace. No. 1,417,364; May 23.
Grinding-wheel carriages, Positioning means for. P. Stoner. No. 1,416,994; May 23.
Grip hook. L. Handy. No. 1,417,378; May 23.
Gripping device. L. J. Berkeley. No. 1,417,294; May 23.
Grubber, Power. E. Thompson. No. 1,417,425; May 23.
Guanidine, Preparation of. T. L. Davis. No. 1,417,369; May 23.
Hair clipper. C. Monroe. No. 1,417,094; May 23.
Hair-cutting device. F. J. Price and M. W. Gallaway. No. 1,417,200; May 23.
Hair-waving heater. Z. Popin. No. 1,416,750; May 23.
Hand bag. P. Cohen. No. 1,416,690; May 23.
Hanger: *See*—
Garment hanger.
Harvester, Beet and vegetable. C. M. Ewing and H. N. Bryan. No. 1,417,309; May 23.
Hayrack. C. W. Warden. No. 1,417,125; May 23.
Heat and its application for heating liquids and other purposes, Production of. D. La Cour. No. 1,417,075; May 23.
Heat-utilizing device. J. F. Syre't. No. 1,417,215; May 23.
Heater: *See*—
Electric heater. Steering-wheel heater.
Electrical heater. Water heater.
Hair-waving heater.
Heater base. C. G. Walker. No. 1,416,916; May 23.
Heating device, Electric. W. F. Lebzelter. No. 1,417,079; May 23.
Heel for women's shoes. A. A. Fortunato. No. 1,417,156; May 23.
Hide splitters, Stamping attachment for. J. F. Neiley. No. 1,416,967; May 23.
High-potential switch. G. T. Southgate. No. 1,417,420; May 23.
Hinge construction, Spring-. P. T. Simmons and R. I. Rhodes. No. 1,416,895; May 23.
Hinge, Spring. F. X. Maier. No. 1,417,084; May 23.
Hinge, Window. F. Schlais. No. 1,417,110; May 23.
Hitch. E. Newman. No. 1,417,344; May 23.
Hitch rack. L. H. Jacobs. No. 1,417,385; May 23
Hog feeder. G. W. Smidley. No. 1,417,212; May 23.
Hoist, Double-drum. J. Ditson. No. 1,417,041; May 23.
Hoist, Equalizing. W. S. Livengood. No. 1,417,187; May 23.

Hoisting and conveying device. D. S. Andrews. Nos. 1,417,014–15; May 23.
Hoisting and conveying machine. D. S. Andrews. No. 1,417,013; May 23.
Hoisting apparatus. W. E. Boehck. No. 1,417,022; May 23.
Hoisting-drum control. L. D. Ekin. No. 1,417,465; May 23.
Hoisting machine. J. G. Johnson. No. 1,417,386; May 23.
Hook: *See*—
Grip hook. Towing hook.
Safety hook.
Hose coupling, Automatic. W. F. Wall. No. 1,417,433; May 23.
Hose drum and coupling, Combined. W. A. Cox. No. 1,417,459; May 23.
Hose supporter. J. Patterson, Jr. No. 1,416,866; May 23.
Hospital sreen. D. E. Matson. No. 1,416,733; May 23.
Hub, Wheel. M. Van Meter. No. 1,417,119; May 23.
Huller: *See*—
Strawberry huller.
Ice-cream overrun tester. W. J. McLaughlin. No. 1,416,730; May 23.
Ignition system. H. T. Dukct. No. 1,416,802; May 23.
Indicator: *See*—
Direction indicator. Speed indicator.
Gear indicator.
Indicator. J. Lewis and S. Davies. No. 1,416,847; May 23.
Inflating coupling. E. C. Bevins. No. 1,416,781; May 23.
Ingot. B. P. Hazeltine. No. 1,417,246; May 23.
Ingots, Means for casting. A. MacMichael and C. Schink. No. 1,417,269; May 23.
Ink-bottle holder. W. B. McConnell. No. 1,417,081; May 23.
Inkwell. E. H. Oakman. No. 1,416,862; May 23.
Insecticides, Making. H. H. Dow. No. 1,417,232; May 23.
Internal-combustion engine. C. E. Berg. No. 1,417,133; May 23.
Internal-combustion engine. R. M. Roof. No. 1,416,977; May 23.
Iron: *See*—
Pancake iron.
Ironing and folding machine, Combined. L. M. Kohn. No. 1,417,255; May 23.
Jack. W. J. Trumpour and W. Wirth. No. 1,416,912; May 23.
Joint: *See*—
Expansion joint. Miter joint.
Journal bearing, Lubricating. H. F. Schmidt. No. 1,416,884; May 23.
Key. G. Fuegel and H. Schmid. No. 1,417,161; May 23.
Kitchen utensil. R. W. Charlton. No. 1,417,453; May 23.
Knife. E. Krafft. No. 1,416,723; May 23.
Knitting machines, Loop-regulating mechanism for. M. Zwicky. No. 1,417,289; May 23.
Knitting machines, Selvage-reenforcing attachment for full-fashioned. M. Zwicky. No. 1,417,290; May 23.
Ladder foot. F. J. Rynerson. No. 1,417,353; May 23.
Lamp bulbs and other vacuum tubes, Copper conductor for electric-. T. Yania. No. 1,417,287; May 23.
Lamp, Oil. W. W. Webb. No. 1,417,004; May 23.
Lamp, Reflector. A. C. Wood. No. 1,417,123; May 23.
Lamps, Deflecting device for automobile. A. Angelo. No. 1,417,128; May 23.
Latch device for vehicle, Doors. K. Forbes. No. 1,417,239; May 23.
Laundry machines, Driving mechanism for. F. J. Couch. No. 1,417,300; May 23.
Lawn cleaner. C. M. Chaffin. No. 1,417,032; May 23.
Lens-cutting machine. L. Q. Presby. No. 1,417,468; May 23.
Lens-forming process. G. S. Dey. No. 1,416,947; May 23.
Lens mounting. A. T. Jacobson. No. 1,417,326; May 23.
Letter and envelope stuffer or the like, Combined. E. P. Shurick. No. 1,417,211; May 23.
License plate, Illuminated. E. McGarvin. No. 1,417,400; May 23.
Lifter: *See*—
Valve lifter.
Lifting device. L. Wilkinson. No. 1,417,436; May 23.
Lifting jack, Safety. D. C. Klausmeyer. No. 1,417,254; May 23.
Lighting fixture. T. Dahl. No. 1,417,145; May 23.
Lingerie clasp. C. Silverman. No. 1,416,758; May 23.
Link, Fusible. M. K. Hopkins. No. 1,416,713; May 23.
Liquid dam preparation. E. C. Miller. No. 1,417,091; May 23.
Liquid-feeding apparatus. M. Kraut. No. 1,416,840; May 23.
Liquid receptacles, Reserve-supply-controlling device for. A. J. Schreiner. Nos. 1,416,885–6; May 23.
Liquid-screening apparatus. G. R. Roddy. No. 1,417,205; May 23.
Liquid-vending apparatus. F. Woodruff. No. 1,417,439; May 23.
Liquids, Purifying. C. W. Sirch. No. 1,416,899; May 23.
Lithographic printing surfaces and making same, Master sheet for use in making. A. Grass. No. 1,416,706; May 23.
Lock. L. P. Dages. No. 1,417,038; May 23.
Lock. W. F. Diesel and W. R. Price. No. 1,417,148; May 23.
Lock: *See*—
Automobile door lock. Pin-tumbler lock.
Clutch-pedal lock. Stake lock.
Combination lock. Tool-joint lock.
Elevator lock. Trunk lock.
Nut lock.
Lock. D. M. Tulloch and W. Bodge. No. 1,417,430; May 23.
Lock. J. Michalek. No. 1,416,855; May 23.
Locomotive. W. F. Kiesel, Jr. Nos. 1,416,717–8; May 23.
Locomotive tender. F. Hogg. No. 1,417,322; May 23.
Locomotives and other automotive machines, Booster appliance for. F. V. De Armand. No. 1,417,302; May 23.
Locomotives, Noiseless blower for. H. E. Harris and L. O. Swaim. No. 1,416,954; May 23.
Looms, Harness-operating device for. J. Wilkinson. No. 1,417,220; May 23.
Lubricating mechanism. H. B. Halvorsen. No. 1,417,057; May 23.
Lubricating mechanism. H. C. Johansen. No. 1,417,059; May 23.
Lubricating mechanism for compressors. H. B. Halvorsen. No. 1,417,058; May 23.
Lubricator. E. Tatschke. No. 1,417,216; May 23.
Lubricator, Locomotive journal. J. J. Hennessy. No. 1,416,710; May 23.
Magneto generator. W. H. Chapman. No. 1,416,789; May 23.
Magneto, Oscillating. F. W. Andrew. No. 1,416,670; May 23.
Mail-bag catcher. R. H. Barnitz. No. 1,416,932; May 23.
Manhole frame and cover. L. Gschwind. No. 1,417,377; May 23.
Mask. M. Priluker. No. 1,417,201; May 23.
Measuring device. J. H. Bevel. No. 1,417,021; May 23.
Medical appliance. L. A. Hall. No. 1,417,318; May 23.
Mesh or net work, Machine for the manufacture of ringlet. R. Kölsch. No. 1,417,257; May 23.
Metal and other sheets, Press for operating upon. C. J. Rhodes and T. H. Webb. No. 1,416,877; May 23.
Metal articles, Making composite. J. F. R. Rousseau. No. 1,416,879; May 23.
Metal-feeding apparatus. H. C. Zenke. No. 1,417,440; May 23.
Metal-forming machine. A. J. Lewis. No. 1,417,397; May 23.
Metal sheets or foils, Production of thin. T. A. Edison. No. 1,417,464; May 23.
Metallic surfaces, Coloration of. T. Rondelli and Q. Sestini. No. 1,417,413; May 23.
Meter boxes, Lock for. E. Rynearson. No. 1,416,978; May 23.
Micrometer gauge. S. A. Foster. No. 1,416,810; May 23.
Milking machine. N. D. Rutherford. No. 1,416,880; May 23.
Milking machine. W. F. Turk and S. Nielsen. No. 1,417,116; May 23.
Mill: *See*—
Fanning mill.
Mining and quarrying machine. F. Oldroyd. No. 1,416,742; May 23.
Mirror fastener. W. H. Holder. No. 1,416,826; May 23.
Miter clamp. G. R. Reeves. No. 1,416,874; May 23.
Miter joint. C. E. Smith. No. 1,416,901; May 23.
Mitten. M. J. Hollenbeck. No. 1,417,323; May 23.
Model making. R. S. Megathlin. No. 1,417,274; May 23.
Mold. T. A. Edison and C. G. Kircher. No. 1,417,463; May 23.
Molding hollow bodies, Apparatus for. P. A. E. Armstrong. No. 1,416,927; May 23.
Molding machine. N. Rappez. No. 1,416,976; May 23.
Motor. L. Watkins. No. 1,417,003; May 23.
Motor cycle. J. A. Peters. No. 1,416,745; May 23.
Motor driven devices, Attachment for. A. G. Blocker. No. 1,417,228; May 23.
Motor-vehicle bumper. E. Nystrom. No. 1,416,861; May 23.
Motors, Baffle plate for V-type. H. J. Edwards. No. 1,416,803; May 23.
Mower, Lawn. G. F. Bull. No. 1,416,784; May 23.
Mower, Lawn. J. N. M. Keyzer. No. 1,417,252; May 23.
Music portfolio, Sheet-. C. W. Stalling. No. 1,416,903; May 23.
Music-roll-printing machine. T. H. Spence and J. A. Turnell. No. 1,416,759; May 23.
Musical instrument. J. Kalaf, Jr. No. 1,417,174; May 23.
Needle. J. F. Snider. No. 1,417,357; May 23.
Nitrophenols, Mercury nitrate as a reagent for the preparation of. T. L. Davis. No. 1,417,368; May 23.
Nonskid chains, Traction device for. T. C. Ayers. No. 1,417,130; May 23.
Nozzle. N. P. Casorso and C. Vacher. No. 1,417,031; May 23.
Nut lock. M. D. Kimball. No. 1,417,334; May 23.
Nutcracker. A. R. Maness. No. 1,417,272; May 23.
Oil and grease deflector. J. H. Ram. No. 1,417,410; May 23.
Oil burner. J. W. Farrar. No. 1,417,371; May 23.
Oil-burning furnace, Crude-. R. Moeller and O. Otterson. No. 1,417,092; May 23.
Oil cans, Support for. G. B. Jones. No. 1,417,327; May 23.
Oil composition. J. I. O'Banion. No. 1,417,103; May 23.
Oil-gas burner. L. C. Fraser. No. 1,417,159; May 23.
Oil, Refining. P. T. Sharples. No. 1,416,891; May 23.

Oils, Vaporizing device for fuel. R. L. Bowman. No. 1,416,938; May 26.
Oiling the wheels of tramway and like vehicles, Means for mechanically. T. Abbott. No. 1,416,668; May 23.
Ordnance. B. B. Holmes. No. 1,416,827; May 23.
Ore concentrator. J. B. Arthur. No. 1,416,928; May 23.
Ores, Concentrating. R. Luckenbach. No. 1,417,261; May 23.
Ores, Concentration of. R. Luckenbach. Nos. 1,417,262–3; May 23.
Ores of the precious metals, Treating manganiferous. M. F. Fairlie and J. J. Denny. No. 1,417,153; May 23.
Oven. P. Mustonen. No. 1,417,404; May 23.
Oven truck. G. Mueller. No. 1,417,096; May 23.
Oxyacetylene lighter. N. G. Lavigne. No. 1,416,845; May 23.
Ozone, Apparatus for producing. H. E. Ellis. No. 1,417,046; May 23.
Pancake iron. N. A. Rose. No. 1,417,351; May 23.
Partition, Sheet-metal. J. O. Nyman and J. P. Pearson. No. 1,417,102; May 23.
Paste, Preparing. C. C. Carpenter. No. 1,416,787; May 23.
Pastries, Device for forming. F. E. Morris. No. 1,416,735; May 23.
Pastry, Method and means for making cup. L. C. Sharp. No. 1,416,889; May 23.
Pattern chart or envelope. F. Hutter. No. 1,416,715; May 23.
Pattern mechanism. C. Lea. No. 1,417,078; May 23.
Paving block. G. S. and C. W. Wright. No. 1,417,010; May 23.
Pencil holder. M. Desrochers. No. 1,416,799; May 23.
Pencil sharpener. C. Cleveland. No. 1,417,034; May 23.
Petroleum, Refining. P. T. Sharples. No. 1,416,890; May 23.
Phonograph drive mechanism. H. K. Sandell. No. 1,417,109; May 23.
Phonograph-record cabinet. O. Lorenz. No. 1,417,188; May 23.
Phonographs, Merry-go-round attachment for. E. M. Hansley. No. 1,417,060; May 23.
Phonographic-disk cabinet. L. P. Clutter. No. 1,416,689; May 23.
Photograph positive and negative. R. John. No. 1,417,328; May 23.
Photographic-printing apparatus. R. D. Moninger. No. 1,417,203; May 23.
Piano. C. N. Mangold. No. 1,417,191; May 23.
Picture apparatus, Illuminating device for moving-. E. Mechau. No. 1,417,089; May 23.
Picture frame. B. Proctor, Jr. No. 1,417,108; May 23.
Picture machines, Shutter mechanism for motion-. E. W. Nelson. No. 1,417,098; May 23.
Pile regulator, Compressible. A. W. Donop. No. 1,417,151; May 23.
Pin: *See*—
Safety pin. Split pin.
Pin-tumbler lock. F. C. Barker. No. 1,417,132; May 23.
Pipe or conduit hanger. J. T. Barry. No. 1,416,679; May 23.
Pipes and return bends, Connecting. C. K. Lassiter and J. Kindervater. No. 1,417,395; May 23.
Pistol, Automatic. D. Artamendi. No. 1,416,671; May 23.
Piston. D. B. Crawford. No. 1,416,795; May 23.
Piston packing. J. P. Simpson. No. 1,417,355; May 23.
Plastic composition for use as a coating for walls of buildings. L. N. Brower and P. Werle. No. 1,416,684; May 23.
Plow, Disk. S. Yuasa. No. 1,417,221; May 23.
Plowshare. J. C. Bohmker. No. 1,416,937; May 23.
Plug, Attachment. H. Catlin. No. 1,417,452; May 23.
Plumber's soil. J. F. Leddy. No. 1,417,258; May 23.
Pneumatic tools, Air-inlet-valve mechanism for. M. J. Burkel. No. 1,417,136; May 23.
Polishing wheel. D. F. McGovern. No. 1,416,729; May 23.
Polishing wheels, Friction heating apparatus for. J. Puls. No. 1,417,202; May 23.
Potatoes and its manufacture, Soil mixture for a forced growing of. J. Husson. No. 1,417,248; May 23.
Potato cutter, Seed-. J. S. Marquez. No. 1,417,273; May 23.
Potato slicer and shredder. R. D. Maine. No. 1,416,853; May 23.
Poultry, Hover for. A. L. Ball. No. 1,417,225; May 23.
Power-generating system. J. M. Philbrook. No. 1,416,867; May 23.
Press. C. L. Knott. No. 1,416,721; May 23.
Press. P. A. Seewagen. No. 1,417,417; May 23.
Presses, Safety device for. M. A. Possons. No. 1,417,346; May 23.
Pressing machine. H. C. Hoting. No. 1,416,829; May 23.
Pressure gauge. A. E. Cutler. No. 1,416,794; May 23.
Print-washing device. V. F. Langton and J. J. Underwood. No. 1,417,077; May 23.
Printing presses, Preparing cutting and scoring matrices for. C. W. Britcher. No. 1,416,682; May 23.
Pronged-eye fastener. E. J. Smith. No. 1,416,902; May 23.
Protector. L. J. Sanders. No. 1,417,414; May 23.
Pump, Double-action. E. E. Pigg. No. 1,417,105; May 23.
Pump, Quick-lift. M. N. Griffin and R. E. George. No. 1,417,317; May 23.
Pump, Rotary. J. F. Smith. No. 1,417,418; May 23.
Pump, Tire. R. Garrett. No. 1,417,163; May 23.
Pump valve. A. England. No. 1,417,235; May 23.
Pumps, By-pass system for piston. F. Martin. No. 1,416,731; May 23.
Rack: *See*—
Hitch rack. Record-filing rack.
Radiator. A. W. Caps. No. 1,417,026; May 23.
Radiator. E. B. Cushman. No. 1,417,037; May 23.
Radiator attachment. F. Gade. No. 1,417,312; May 23.
Radiator construction. J. B. D. L. Chardard. No. 1,416,944; May 23.
Radiator construction. P. Mathes. No. 1,417,087; May 23.
Radiator, Engine. A. W. Caps. No. 1,417,027; May 23.
Radiator, Motor-vehicle. J. B. D. L. Chardard. No. 1,416,945; May 23.
Radiator tube. F. F. Jungerheld. No. 1,417,387; May 23.
Radiosignals, Device for receiving. C. Bardeloni. No. 1,416,774; May 23.
Rail anchor. E. E. Slick. No. 1,417,473; May 23.
Railway. P. L. Mathews. No. 1,417,088; May 23.
Railway rails, Anticreeper tie plate for. W. S. Weston. No. 1,417,366; May 23.
Railway safe-running device. A. R. Angus. No. 1,417,016; May 23.
Railway safety switch. I. M. Brittain. No. 1,417,297; May 23.
Railway spike. H. E. Harris and J. H. Downey. No. 1,416,819; May 23.
Railway spike. R. E. Osborne. No. 1,416,971; May 23.
Railway tie, Metal. R. T. Burdette. No. 1,416,686; May 23.
Razor, Finger-grasping safety. J. A. Williamson. No. 1,417,437; May 23.
Receptacle. G. A. Vickery. No. 1,416,914; May 23.
Receptacle covers, Securing rim for. A. F. Gudknecht. No. 1,417,166; May 23.
Record disk. F. Lenton. No. 1,417,339; May 23.
Record-filing rack. E. W. Ladd. No. 1,417,471; May 23.
Reel: *See*—
Film reel.
Reeling device, Automatic. T. J. Trew. No. 1,417,429; May 23.
Reflector, Tiltable. H. T. Platz. No. 1,416,749; May 23.
Refrigerating machine. A. G. Ross. No. 1,416,878; May 23.
Register. J. J. Albright. No. 1,417,011; May 23.
Regulator: *See*—
Pile regulator.
Relay, Three-position. R. M. Gilson. No. 1,416,953; May 23.
Restraining apparatus. G. Cortez. No. 1,417,230; May 23.
Rheostat, Fluid. B. F. Tillson. No. 1,416,908; May 23.
Rim. D. C. Swander. No 1,417,285; May 23.
Rim attachment, Split-. E. R. Hunnewell. No. 1,417,171; May 23.
Ring: *See*—
Emery ring.
Ring and plate therefor. R. Rosenthal. No. 1,417,352; May 23.
Ring-grinding machine. R. D. Gardner. No. 1,416,952; May 23.
Ring-slot-cleaning tool. B. Baldwin. No. 1,416,673; May 23.
Rock drill and like cutting machine. A. Berner. No. 1,417,227; May 23.
Rod: *See*—
Connecting rod.
Rod and cross-pin connection and making same. C. F. S. Byrne. No. 1,417,229; May 23.
Roller: *See*—
Elastic roller. Window-shade roller.
Roller. F. R. Piper. No. 1,416,748; May 23.
Rolling-stock safety device. W. S. Arleskie. No. 1,416,926; May 23.
Rotor. A. W. Carlson. No. 1,417,029; May 23.
Rubber heel, Reversible interchangeable. J. W. Meyers. No. 1,417,275; May 23.
Saddle, Cycle, motor-cycle, and analogous. B. Brooks. No. 1,416,942; May 23.
Safety device for doors. A. L. Cresci. No. 1,417,301; May 23.
Safety hook. L. Loop. No. 1,416,961; May 23.
Safety pin. G. Letmolee. No. 1,417,080; May 23.
Sanding machine. V. Avolio and F. Lattanzi. No. 1,417,293; May 23.
Scale. B. W. King. No. 1,416,719; May 23.
Scraper. C. L. Lawton. No. 1,417,183; May 23.
Screen: *See*—
Hospital screen.
Sealing apparatus. I. Keesing, Jr. No. 1,416,836; May 23.
Sealing means. W. M. Brooks. No. 1,416,683; May 23.
Separator: *See*—
Centrifugal separator. Storage-battery separator.
Golf-club separator.
Separator and drier. C. J. Wood. No. 1,416,922; May 23.
Sewing machine. F. Baker. No. 1,417,476; May 23.
Sewing machine seam-margin-opening device. C. W. Thomas and P. W. Somers. No. 1,416,998; May 23.
Sewing machines, etc., Stopping mechanism for. G. E. Molyneux. No. 1,417,093; May 23.

Sewing machines, Fan for. E. Delia and V. Corrado. No. 1,417,470; May 23.
Shade and curtain bracket. J. A. Hemfling. No. 1,417,247; May 23.
Shaft casing. L. Ringer. No. 1,417,349; May 23.
Shaft coupling. W. R. Walker. No. 1,417,432; May 23.
Sharpener, Knife. M. T. Graf. No. 1,417,054; May 23.
Sharpening device. W. H. Frankland. No. 1,417,158; May 23.
Sheet and tin-plate bars, Method of and furnace for heat-treating. T. V. Allis. No. 1,417,012; May 23.
Sheet-feeding machine. R. D. Schoenwetter. No. 1,416,985; May 23.
Shell. T. L. Wecke. No. 1,417,475; May 23.
Shield, Expansion. H. W. Pleister. No. 1,417,197; May 23.
Shims, Making. B. Darrach, Jr. No. 1,417,039; May 23.
Ship propulsion, Electric. J. Martin and F. H. Clough. No. 1,417,342; May 23.
Ship protection. H. J. W. Fay. No. 1,416,950; May 23.
Ship structure. J. H. Lindroos. No. 1,417,260; May 23.
Shirt. P. H. Nolting. No. 1,417,101; May 23.
Shock absorber. A. Blossom. No. 1,416,782; May 23.
Shock absorber. J. M. Kerr. Nos. 1,417,175–9; May 23.
Shock absorber. W. L. Walker. No. 1,417,002; May 23.
Shoe construction. E. E. Hosmer. No. 1,417,170; May 23.
Shoe rest. E. S. Hecht. No. 1,416,823; May 23.
Sifter, Flour. B. Cmeyla. No. 1,417,035; May 23.
Signal: *See*—
Auto signal.
Signal-governing apparatus. A. I. Woodring. No. 1,417,124; May 23.
Signaling device. R. G. Smith. No. 1,417,419; May 23.
Silk, Spinning box for artificial. J. Clayton. Nos. 1,417,455–6; May 23.
Silk to be dyed black, Weighting or charging. A. W. Schmid. No. 1,417,206; May 23.
Sled. H. Hyndman. No. 1,417,172; May 23.
Slicing machine, Boiled-potato-. R. S. Trynoski. No. 1,417,360; May 23.
Slotting, shaping, milling, drilling, and like machine tools. H. and H. Butler, R. H. Hayhurst, and W. Alderson. No. 1,416,786; May 23.
Smoke-fuel attachment. J. H. Carmichael. No. 1,417,030; May 23.
Soap holder. F. Meeks. No. 1,416,962; May 23.
Socket and resistance, Combination. A. H. Donahoe. No. 1,416,948; May 23.
Sodium-carbonate sulphate from saline waters, Recovering. G. B. Burnham. No. 1,417,139; May 23.
Soldering composition. A. Traliot. No. 1,417,428; May 23.
Sole-grooving machine. O. F. Armstrong. No. 1,417,018; May 23.
Sole-tempering box. C. M. Mellage. No. 1,417,090; May 23.
Solvents and of recovering the latter, Separating extractive matters from solutions of mixtures of. H. Bollmann. No. 1,417,477; May 23.
Soot in boiler tubes, Apparatus for blowing out. E. F. C. Hagedorn and H. P. Hansen. No. 1,416,708; May 23.
Spark arrester. W. B. Nutting. No. 1,416,968; May 23.
Spark plug. S. P. Pietszak. No. 1,416,868; May 23.
Sparking plug. S. E. Taylor, F. O. Ellis, and G. E. T. Archer. No. 1,416,907; May 23.
Speed indicator. T. Farmer, Jr. No. 1,417,049; May 23.
Speed indicator. H. H. Riggs. No. 1,417,204; May 23.
Speed mechanism, Automatic change-. M. Stucatur. No. 1,416,996; May 23.
Speed transmission, Control set for change-. A. H. Asprooth. No. 1,416,672; May 23.
Spiral machine. T. Kardong. No. 1,417,249; May 23.
Split pin. F. J. Fenicle. No. 1,416,700; May 23.
Spring cap, Double-seal. J. F. McGarraban. No. 1,417,341; May 23.
Springs, Shim for. K. R. Peters. No. 1,417,279; May 23.
Stake lock. F. L. Ruzicka. No. 1,416,881; May 23.
Stamp-affixing machine. A. and J. Villani. No. 1,417,362; May 23.
Stanchion support. J. M. B. Lewis. No. 1,417,184; May 23.
Stand: *See*—
Butchering stand. Display stand.
Staybolt construction. E. I. Dodds. No. 1,417,150; May 23.
Staybolt structure. E. I. Dodds. No. 1,417,149; May 23.
Staybolt structure. B. E. D. Stafford and E. I. Dodds. No. 1,417,115; May 23.
Steel tubing, Die track for forming spiral. J. Fentress. No. 1,417,050; May 23.
Steering device. E. J. Sella. No. 1,416,986; May 23.
Steering device, Extension. O. M. Hatcher and J. C. Campbell. No. 1,417,320; May 23.
Steering-gear and fuel-tank support. A. C. Mason. No. 1,417,192; May 23.
Steering wheel. L. E. Willett. No. 1,417,122; May 23.
Steering-wheel heater. L. J. Cobus. No. 1,416,946; May 23.
Stereotype printing plates, Cooling finished. C. E. Hopkins. No. 1,416,714; May 23.
Sterilizing apparatus. F. H. Landrum and A. M. Cramer. No. 1,417,182; May 23.
Stock divider. E. C. Eberts. No. 1,417,045; May 23.
Stockings, Making. S. B. Rains. No. 1,417,347; May 23.
Stone crusher. G. E. Krider. No. 1,417,389; May 23.
Stools or the like, Fitting for. R. K. Dawson. No. 1,416,693; May 23.
Storage-battery element. J. C. Sundby. No. 1,417,214; May 23.
Storage-battery plates. C. C. Carpenter. No. 1,416,788; May 23.
Storage-battery separator. G. Steerup. No. 1,416,761; May 23.
Stove, Air-heating. F. A. C. Skinner. No. 1,416,900; May 23.
Stove construction. R. Hoffman. No. 1,416,956; May 23.
Stoves, Burner for gas. J. G. Scott. No. 1,416,887; May 23.
Strawberry huller. N. C. Hall. No. 1,416,818; May 23.
Stringed-instrument mute. C. B. Bergen. No. 1,416,780; May 23.
Submarines, Valve mechanism for. H. E. Grieshaber. No. 1,417,165; May 23.
Sulphur dioxide from waste metallurgical gases, Recovering. G. C. Howard. No. 1,417,067; May 23.
Sulphur from sulphur dioxide, Making. G. C. Howard. No. 1,417,068; May 23.
Sulphurs and vermilions of antimony, Manufacture of gold colored. P. Chaillaux. No. 1,417,033; May 23.
Sun and light diffuser, Adjustable. T. J. Treichel. No. 1,417,218; May 23.
Superheater. E. H. Foster. No. 1,416,809; May 23.
Superheater support. W. F. Keenan, Jr. No. 1,416,835; May 23.
Surgical instrument. A. B. Couch. No. 1,417,142; May 23.
Suspension transporter arrangement. A. G. M. Jack. No. 1,417,070; May 23.
Sweeper, Street. A. C. Deweese. No. 1,417,231; May 23.
Swing chair, Folding. J. Baugher and W. F. Kline. No. 1,417,443; May 23.
Switch: *See*—
Drum switch. High-potential switch.
Electric switch. Railway safety switch.
Table: *See*—
Folding table.
Talking and other machines, Winding device for motors of. C. J. Goodman. No. 1,417,314; May 23.
Talking machine. S. Schlesinger. No. 1,417,111; May 23.
Tank: *See*—
Flushing tank.
Tank. C. H. Loop. No. 1,416,849; May 23.
Telephone circuits. G. W. Kuhn. No. 1,416,724; May 23.
Telephone receiver. S. Honig. No. 1,417,479; May 23.
Tempering apparatus. L. A. Frayer and W. J. Miller. No. 1,416,811; May 23.
Thermometer case. C. R. Wallendorf. No. 1,417,365; May 23.
Thermometer case, Clinical-. J. T. Burden. No. 1,416,785; May 23.
Thermostat. F. H. Kolbe and E. R. De Luiz. No. 1,416,722; May 23.
Thermostatic regulating or controlling apparatus. A. H. McNeil. No. 1,416,851; May 23.
Thrasher and clover huller, Combined. J. Harvat. No. 1,416,820; May 23.
Thread-controlling mechanism. A. H. De Voe. No. 1,416,697; May 23.
Ticket holder. H. and L. Hopp. No. 1,417,325; May 23.
Ticket holder. J. F. Toohey. No. 1,416,909; May 23.
Tie: *See*—
Railway tie.
Tilting furnace. W. Dyrssen. No. 1,416,699; May 23.
Time-controlled reminder apparatus. S. Toy. No. 1,416,910; May 23.
Timer mechanism. E. W. Turner. No. 1,417,361; May 23.
Tire armor. W. G. Stockham. No. 1,417,359; May 23.
Tire, Automobile and motor-cycle. G. W. Ray. No. 1,416,873; May 23.
Tire gauge. J. I. Glickerman. No. 1,416,814; May 23.
Tire grip, Nonskid-. N. J. Lindstrom. No. 1,417,186; May 23.
Tire rim, Demountable. C. G. Briden. Nos. 1,416,939–40; May 23.
Tire, Rubber. A. L. Freedlander and W. G. Goodwin. No. 1,417,051; May 23.
Tire tube, Pneumatic-. O. J. Humphrey. No. 1,417,383; May 23.
Tires, Inner liner for automobile. H. N. Wayne. No. 1,416,917; May 23.
Tires, Low-pressure alarm for pneumatic. W. A. Harris. No. 1,417,168; May 23.
Tires, Method and apparatus for manufacturing. W. Kline. No. 1,417,180; May 23.
Tires, Nonskid chain for automobile. J. M. Green. No. 1,417,055; May 23.
Toe clip. J. S. Brown. No. 1,417,447; May 23.
Tool holder. E. A. Johansson. No. 1,416,832; May 23.
Tool holder. P. O. Stangeland. No. 1,416,904; May 23.
Tool-joint lock. C. B. and C. D. Reynolds. No. 1,417,411; May 23.
Tooth, Artificial. S. L. Greenberg. No. 1,417,376; May 23.
Tooth cavities and nerve canals, Method and means for treating and filling. A. I. Harvin. No. 1,417,379; May 23.
Toothbrush. J. Novak. No. 1,417,407; May 23.
Towing hook. J. Abraham. No. 1,417,222; May 23.
Toy car. F. C. Bauer. No. 1,416,775; May 23.

Toy gun. S. Lander. No. 1,417,392; May 23.
Toy, Musical. J. Bartolowsky. No. 1,417,019; May 23.
Toy, Musical. F. Michalicek. No. 1,417,343; May 23.
Toy railway, Gravity. A. E. Jones. No. 1,417,071; May 23.
Toy, Wheeled. G. A. McCreary. No. 1,417,190; May 23.
Tracks, Tool for aligning. M. Uno. No. 1,416,999; May 23.
Traction lug. F. M. Fichten. No. 1,416,806; May 23.
Traction machines, Steering-port support for. J. Mader. No. 1,417,270; May 23.
Tractor. A. D. Ray. No. 1,416,753; May 23.
Tractor. J. M. Meyers. No. 1,417,193; May 23.
Tractor cabs, Dustproofing and cooling. R. E. Fuller. No. 1,416,813; May 23.
Tractor hitch. D. F. Geiger. No. 1,417,373; May 23.
Tractor hitch. M. M. Knowles and J. N. Bates. No. 1,417,335; May 23.
Tractor wheel. E. J. Farkas. No. 1,416,949; May 23.
Tractor-wheel cleat. E. H. Bass. No. 1,417,020; May 23.
Tractors, Clutch control for Fordson. W. B. Shorter. No. 1,416,893; May 23.
Tractors, Implement-steering attachment for. A. J. Silva. No. 1,416,989; May 23
Tractors, Sawing attachment for. S. A. Wooldrik. No. 1,416,923; May 23.
Transmitting apparatus, Motion-. G. Lhermitte. No. 1,417,398; May 23.
Transportation system, Electric. E. E. Hawkins. No. 1,417,062; May 23.
Trap catch. T. L. Munroe. No. 1,416,737; May 23.
Traverse mechanism. J. Clayton. No. 1,417,454; May 23.
Tray, Ash. J. P. Griffin. (Reissue.) No. 15,361; May 23.
Tray elevator. S. Olson. No. 1,416,743; May 23.
Trolley wheel. E. S. Robinson and J. Bowers. No. 1,417,350; May 23.
Truck. A. M. Barrett. Nos. 1,416,674–5; May 23.
Trunk lock. J. Luttmann. No. 1,417,264; May 23.
Tube: *See*—
Radiator tube. Tire tube.
Tubes, Forming helically-convoluted. B. B. Holmes. No. 1,417,324; May 23.
Turbine blade. W. B. Flanders. No. 1,416,701; May 23.
Turbine or turbine-driven unit, Elastic-fluid. C. Steenstrup. No. 1,416,760; May 23.
Turbine, Reversing. W. B. Flanders. No. 1,416,702; May 23.
Twister. R. W. Brockway. No. 1,416,941; May 23.
Type gauge, Printer's. F. G. Shepard. No. 1,417,208; May 23.
Typewriting and computing machine, Combined. H. H. Vickers. No. 1,416,766; May 23.
Typewriting and computing machine, Combined. H. L. Pitman. No. 1,417,106; May 23.
Typewriting machine. G. Kromm. No. 1,416,842; May 23.
Typewriting machine. W. A. Dobson. No. 1,417,304; May 23.
Typewriting machine. C. W. Marsh. No. 1,417,472; May 23.
Typographical machines, Metal feeder for. W. P. Zent. No. 1,416,770; May 23.
Urea from lime nitrogen, Producing. O. Nydegger and H. Schellenberg. No. 1,417,277; May 23.
Valve. J. M. Allen. No. 1,417,291; May 23.
Valve. H. B. Babson and J. J. Stampen. No. 1,416,771; May 23.
Valve, Automatic discharge. J. Pittman. No. 1,416,869; May 23.
Valve for gas burners, Air. E. W. Vest. No. 1,417,120; May 23.
Valve tubes, Cap for. D. H. Cox. (Reissue.) No. 15,359; May 23.
Valve lifter. E. E. Faris. No. 1,417,370; May 23.
Valve, Lock. D. C. Fisher. No. 1,416,807; May 23.
Valve turning and grinding machine. F. C. Williams. No. 1,416,920; May 23.
Vanity case. W. G. Kendall. No. 1,417,333; May 23.
Vault, Grave. J. R. Burkhardt. No. 1,417,137; May 23.
Vehicle body. J. T. Cantrell. No. 1,417,140; May 23.
Vehicle chassis and spring. L. Kokovai. No. 1,417,256; May 23.
Vehicle fender. W. H. Hink. No. 1,417,321; May 23.
Vehicle support. P. C. Simmons. No. 1,416,896; May 23.
Vehicle transmission mechanism, Motor-. P. B. Newkirk. No. 1,417,406; May 23.
Vehicle wheel, Pneumatic or cushion. H. L. Flesher. No. 1,417,311; May 23.
Vehicle wheel, Road-. W. Dukes. No. 1,417,152; May 23.
Vehicle wheels, Apparatus for manufacturing. J. E. Batie. No. 1,416,678; May 23.
Vehicles, Axle and construction for power-driven. V. V. Torbensen. No. 1,417,426; May 23.
Vehicles, Bumper for motor. P. Utne. No. 1,417,118; May 23.
Vehicles, Pneumatic brake for. R. D. Heath. No. 1,416,822; May 23.
Vehicles, Radiator for motor. P. Kuhne. No. 1,417,466; May 23.
Vehicles, Steering device for motor. P. M. Wilson. No. 1,416,921; May 23.
Ventilator: *See*—
Coach ventilator.
Ventilator. W. W. Morey. No. 1,417,194; May 23.
Vessels, Device for raising sunken. J. W. Reno. No. 1,416,754; May 23.
Vise, Bench. W. H. Bryan, Jr. No. 1,417,025; May 23.
Vise, Machine. J. A. Olson. No. 1,416,970; May 23.
Wagon, Dump. J. Pullar. No. 1,416,975; May 23.
Wall-board joints, Covering for. J. Schumacher. No. 1,416,888; May 23.
Warp beam and analogous device. A. Balthasar. No. 1,416,931; May 23.
Washing machine. A. J. Dremel. No. 1,417,306; May 23.
Washing machine dashers or agitators, Combination soap holder and grater for. G. H. Hoelscher. No. 1,416,825; May 23.
Washing machines, Operating mechanism for. J. Nelson and G. Seeds. No. 1,417,099; May 23.
Waste metal articles, Machine for collecting. W. Nelesen. No. 1,416,860; May 23.
Watch chains, etc., Swivel for. E. L. Robinson. No. 1,417,281; May 23.
Water heater, Electric. W. W. Graff. No. 1,417,315; May 23.
Water heater, Electrical. T. L. Ralph. No. 1,417,409; May 23.
Watering device, Stock-. F. H. Bogda. No. 1,416,936; May 23.
Waterproof hat protector. B. Newman. No. 1,417,100; May 23.
Waterproofing composition. G. W. Magnus. No. 1,416,852; May 23.
Weather strip. J. C. Dunham. No. 1,416,698; May 23.
Welding hood. J. M. Lightfield. No. 1,416,848; May 23.
Welding machine attachments, Clamp for. H. W. Kranz and J. Lukes. No. 1,416,839; May 23.
Welding, Spot. J. C. Sander. No. 1,416,883; May 23.
Well-casing ripper. J. E. Keller. No. 1,417,331; May 23.
Welt grooving and beveling machine. T. H. Seely and R. C. Simmons. No. 1,416,757; May 23.
Welt-moistening machine. P. E. Barbour and H. Lyon. No. 1,416,773; May 23.
Wheel: *See*—
Car wheel. Tractor wheel.
Disk wheel. Trolley wheel.
Polishing wheel. Vehicle wheel.
Steering wheel.
Wheel equipment and constructing same. J. S. Williams. No. 1,417,008; May 23.
Wheel lock for quick-detachable wheels. G. E. Molyneux. No. 1,417,276; May 23.
Wheel mounting. L. B. Neighbour. No. 1,416,740; May 23.
Winding device. D. L. Mattern. No. 1,417,402; May 23.
Windmill. H. C. Vogt, W. V. Boby, and S. D. Lancaster. No. 1,417,000; May 23.
Windmill. E. R. Wilson. No. 1,417,438; May 23.
Window, Display. J. Reichl. No. 1,416,875; May 23.
Window-screen adjuster. P. C. Pachesa. No. 1,417,104; May 23.
Window-screen hinge. H. Muller. No. 1,417,097; May 23.
Window-shade roller. E. R. Brock. No. 1,417,298; May 23.
Window-shifting mechanism. N. Des Rosier. No. 1,417,147; May 23.
Window washer and cleaner. R. A. Greelish. No. 1,416,817; May 23.
Windshield. A. L. Lambert and A. Bell. No. 1,417,076; May 23.
Wire-coil conveyer. S. and J. Zoppelt. No. 1,417,288; May 23.
Wire connector. G. W. Pugh. No. 1,417,408; May 23.
Wrench: *See*—
Chain pipe wrench.
Wrench. W. H. Krumsick. No. 1,417,390; May 23.
Wrench. J. E. Lenahan. No. 1,417,338; May 23.
Wrench. V. L. Ochoa. No. 1,417,196; May 23.
Wrench. W. H. Scott. No. 1,417,354; May 23.
Wrench. A. Shirk. No. 1,417,210; May 23.

ALPHABETICAL LIST OF DESIGNS.

Bedstead end frames. E. L. Rosenburgh. Nos. 61,000–1; May 23.
Broom and mop hanger. J. L. Clements. No. 60,980; May 23.
Cabinet unit. J. H. Rand, Jr. No. 60,998; May 23.
Card, Christening. W. Janicki. No. 60,990; May 23.
Chandelier. F. M. Poritz. Nos. 60,994–6; May 23.
Doll. A. S. Simmons. No. 61,002; May 23.
Embroidery, lace, or article of similar nature. F. Hoenig. Nos. 60,987–8; May 23.
Gas heater. H. R. Humphrey. No. 60,989; May 23.
Lace. G. Radford. No. 60,997; May 23.
Lace, Embroidered. J. Aemisegger. No. 60,972; May 23.
Lighting fixture. T. Dahl. No. 60,981; May 23.
Lighting-fixture arm. M. B. Bowen. Nos. 60,975–6; May 23.
Lighting-fixture body. T. Dahl. No. 60,983; May 23.
Lighting-fixture canopy. T. Dahl. No. 60,982; May 23.
Lighting-fixture shade frame. T. Dahl. No. 60,984; May 23.
Pin, brooch, bracelet, finger ring, or similar article. S. Kleinman. No. 60,991; May 23.
Ring. T. M. Obsboum. No. 60,993; May 23.
Ring, Finger. S. Glaser. No. 60,985; May 23.
Rug. A. H. Waldo. Nos. 61,004–8; May 23.
Seal, medallion, button, and scarfpin. E. A. Marsh. No. 60,992; May 23.
Tire, Resilient. J. C. Tuttle. No. 61,003; May 23.
Tire tread. J. C. Brown and L. E. Kraft. No. 60,977; May 23.
Toy. R. L. Roberts. No. 60,999; May 23.
Toy ball. F. A. Cigol. No. 60,979; May 23.
Toy saddle horse. W. E. Bartholomew. No. 60,974; May 23.
Toy truck. C. A. Gustaveson. No. 60,986; May 23.
Trays or similar articles, Holder for ash. F. M. Archer. No. 60,973; May 23.
Washing-machine tub and frame, Combination. F. M. Case. No. 60,978; May 23.

ALPHABETICAL LIST OF TRADE-MARKS REGISTERED.

Aluminum ware, Certain articles of. Illinois Pure Aluminum Co. No. 155,245; May 23.
Aluminum ware, Hollow. George Borgfeldt & Co. No. 155,205; May 23.
Automobile running-board mats. Cocosaber Mat Company. No. 155,339; May 23.
Automobile steering mechanism. Locks for. Karlok Manufacturing Company. No. 155,246; May 23.
Batteries, Chemical solution for use in electric storage. Chicago Chemical Company. No. 155,312; May 23.
Bed clothing. Miller Bros. & Company. No. 155,258; May 23.
Beverage and sirup for making same. San Antonio Beverage Syrup Co. No. 155,281; May 23.
Beverage and sirup for manufacturing same. Chemical Works Brugg, Limited. No. 155,212; May 23.
Beverage, Nonalcoholic, noncereal, maltless. C. D. Vreeland. No. 155,359; May 23.
Beverage sold as a soft drink. Arkola Company. No. 155,195; May 23.
Beverages, Nonalcoholic, noncereal, maltless. C. W. Meisezahl. No. 155,254; May 23.
Blankets, Textile hospital. J. W. Fillman. No. 155,228; May 23.
Bookholders. W. Mockridge. No. 155,262; May 23.
Books and circulars, Printed. Allied Labor Press Association. No. 155,188; May 23.
Books, Completely-printed. Brockmann & Company. No. 155,208; May 23.
Bowling alleys and device to be attached to return troughs for trapping and cleaning the balls. Self-cleaning pit mats for. W. Choinski. No. 155,213; May 23.
Braid. Novelty Braid & Trimming Co. No. 155,345; May 23.
Broadcloth piece goods. C. Bahnsen & Co. No. 155,202; May 23.
Brushes, Milling-machinery. Gebrüder Bühler. No. 155,209; May 23.
Brushes, mops, and dusters, Certain. W. Hertzberg. No. 155,333; May 23.
Bulletins for insurance purposes. McLean Reports, Inc. No. 155,249; May 23.
Calendars. American Calendar Company. No. 155,191; May 23.
Canned oysters, clams, and chowder. American Oyster Company. No. 155,306; May 23.
Cards, sheets, circulars, and pamphlets, Printed, embossed, and engraved advertising. Wally, Inc. No. 155,300; May 23.
Catalogues, Annual. Peter Henderson & Co. No. 155,241; May 23.
Cigars. Estate of Joseph J. Schaefer, deceased. No. 155,282; May 23.
Cigars, cigarettes, cheroots, snuff, and manufactured smoking and chewing tobacco. United Cigar Stores Company of America. No. 155,297; May 23.
Clocks, Alarm. Marshall Field & Company. No. 155,253; May 23.
Cocks, Ball. T. W. Ryan. No. 155,353; May 23.
Coffee. C. I. Cook. No. 155,315; May 23.
Corsets, brassières, corset waists, girdles, etc. Frolaset Corset Company. No. 155,327; May 23.
Cotton fabrics in the piece, Woven. G. A. Stafford. No. 155,287; May 23.
Cotton piece goods. Garner Print Works and Bleachery. No. 155,230; May 23.
Cotton piece goods. Wohl, South & Co. No. 155,303; May 23.
Doors and shutters, Fire. Merchant & Evans Company. No. 155,340; May 23.
Dress, negligee, work shirts, and underwear. Madison Mills, Inc. No. 155,338; May 23.
Drilling, reaming, and tapping machines. National Automatic Tool Company. No. 155,264; May 23.
Dyes. Tower Manufacturing Co. No. 155,358; May 23.
Egg candlers. W. L. Morris. No. 155,263; May 23.
Envelopes and wrappers, Mailing. D. L. Baxter. No. 155,203; May 23.
Eyeglasses, temples, and eyeglass bridges and nose pieces for same. B. A. Keller. No. 155,247; May 23.
Fabric imitating silk, Fiber. A. Theo. Abbott & Co. No. 155,185; May 23.
Fishing lines. Ashaway Line & Twine Manufacturing Company. No. 155,307; May 23.
Fishing lines. B. F. Gladding & Co. No. 155,235; May 23.
Fishing lines. B. F. Gladding & Co. Inc. No. 155,329; May 23.
Fishing lines, Braided. B. F. Gladding & Co. No. 155,236; May 23.
Fishing lines, Enameled silk. B. F. Gladding & Co. No. 155,234; May 23.
Files. Tacony File & Hardware Co. No. 155,291; May 23.
Flavoring extracts for food purposes. Garrett & Company, Inc. No. 155,328; May 23.
Garments, Men's outer. T. C. Schaffner. No. 155,354; May 23.
Glue, adhesive paste, and mucilage. W. E. Fites. No. 155,325; May 23.
Gummed-tape moistening and cutting machines. Metal Specialties Manufacturing Company. No. 155,257; May 23.
Gummed-tape moistening and cutting machines. Metal Specialties Manufacturing Company. No. 155,261; May 23.
Hair nets. Fan Tan Novelty Co. No. 155,226; May 23.
Hair tonic. Seville Laboratories. No. 155,355; May 23.
Horological instruments, Certain. G. Hollinwood. No. 155,244; May 23.
Ice-cream freezers. Miller Pasteurizing Machine Company. No. 155,342; May 23.
Ink. A. B. Dick Company. No. 155,220; May 23.
Ink, Stencil and marking. Taylor Bros. Co. No. 155,292; May 23.
Ink, Writing. R. E. Wolfrath. No. 155,304; May 23.
Inks and inking materials, Certain. Sherwin-Williams Company. No. 155,286; May 23.
Ironing boards. Wm. Cameron & Co. No. 155,211; May 23.
Jacks and parts thereof, Lifting. Yellow Jack-It Mfg. Co. No. 155,305; May 23.
Knitted and woven woolen and worsted cloths, Jersey cloth, etc. Continental Mills, Inc. No. 155,216; May 23.
Laundry appliances and machines, Certain. American Laundry Machinery Company. No. 155,192; May 23.
Laundry appliances, Certain. Pierson Company. No. 155,272; May 23.
Laundry appliances, Certain. Thomson-Diggs Company. No. 155,293; May 23.
Laxative in candy form. R. E. Walsh. No. 155,360; May 23.
Lenses, Ophthalmic. Onepiece Bifocal Lens Company. No. 155,269; May 23.
Liquid composition of matter employed as a treating and tanning agent. Robeson Process Company. No. 155,352; May 23.
Listing and mailing sheets, Combined. M. Hartman. No. 155,239; May 23.
Magazine, Monthly. Franklin Company. No. 155,229; May 23.
Magazine section. Eastern Advertising Company. No. 155,223; May 23.
Magazine, Semimonthly. Plumbers Trade Journal Publishing Company. No. 155,273; May 23.
Magazine, Weekly. Gehring Publishing Company. No. 155,231; May 23.
Magnesium alloys and castings and forgings produced therefrom. Magna Metal Corporation. No. 155,250; May 23.
Malt extract. J. J. Haupt. No. 155,240; May 23.
Maps, pamphlets, and books, Printed. American Automobile Association. Nos. 155,189-90; May 23.
Medicinal compound. H. L. Hicks. No. 155,334; May 23.
Medicinal tonic, General. Hartman Specialty Company. No. 155,331; May 23.
Medicine for certain purposes. O. G. Fegley. No. 155,324; May 23.
Medicine for diseases of the lungs. Tremont Manufacturing Company. No. 155,295; May 23.
Metal products consisting of funnels, strainers, commodes, foot tubs, etc. Atlantic Stamping Company. No. 155,200; May 23.
Mineral waters and certain soft drinks. New York Mineral Water Company. No. 155,268; May 23.
Mirrors for vehicles, Rear-view. Automotive Accessories, Inc. No. 155,308; May 23.
Mop wringers. Van Arnam Manufacturing Company. No. 155,299; May 23.
Music rolls for player pianos, etc., and records for phonographs and the like. Mel-O-Dee Music Company. No. 155,255; May 23.
Newspaper, Weekly. Near East American Publishing Company. No. 155,267; May 23.
Oils, Textile. Pure Oil Company. No. 155,350; May 23.
Overalls, jackets, and work shirts. Winer Mfg. Co. No. 155,361; May 23.
Paints. Arnesto Paint Co. No. 155,196; May 23.
Pamphlets, Printed. National Catholic Welfare Council. No. 155,265; May 23.
Paper and stationery, Certain. United States Envelope Company. No. 155,298; May 23.
Paper, Carbon. Kee Lox Manufacturing Company. No. 155,336; May 23.
Paper, Toilet. S. Walter, Inc. No. 155,301; May 23.
Papers, Certain named. Brittains Limited. No. 155,207; May 23.
Paste, Healing and beautifying. R. Decombe-Cook. No. 155,317; May 23.
Paste, Undertakers' make-up. H. Reuter. No. 155,351; May 23.

Pens, Fountain. Salz Brothers. No. 155,280; May 23.
Periodical. George E. Merrill Company. No. 155,256; May 23.
Periodical, Monthly. M. L. Downs. No. 155,222; May 23.
Periodicals, Monthly, etc. W. Ehrman. No. 155,224; May 23.
Periodicals, Printed. Edmund Wright Ginsberg Co. No. 155,233; May 23.
Periodicals, Weekly. Atlas Publishing Company. No. 155,201; May 23.
Phonograph needles. Fletcher Alltones Needle Co. No. 155,326; May 23.
Phonographs. F. W. Hanpeter Furniture Company. No. 155,238; May 23.
Phonographs. Manufacturers' Phonograph Co. No. 155,252; May 23.
Phonographs and parts thereof. J. R. Dew. No. 155,319; May 23.
Phonographic machines. Brenard Manufacturing Company. No. 155,206; May 23.
Photographic prints on metal. Radiotone Photo Company. No. 155,274; May 23.
Pianos. Packard Piano Company. No. 155,270; May 23.
Pianos, piano players, pianos, and organs, Player. M. Steinert & Sons Co. No. 155,288; May 23.
Pianos, Upright, grand, and player. Roth Bros. Piano Co. No. 155,278; May 23.
Picture films, Motion-. Arrow Film Corporation. Nos. 155,197–8; May 23.
Picture-projecting apparatus, Motion-. Withington-Hunting, Inc. No. 155,302; May 23.
Pillowcases, sheets, and bolster coverings. Converse & Company. No. 155,217; May 23.
Preparation for corns, bunions, and callouses. A. Overton. No. 155,347; May 23.
Preparation for treatment of coughs and bronchial disorders. R. J. Strasenburgh Company. No. 155,357; May 23.
Prophylactic preparations. J. Pesicchil. No. 155,348; May 23.
Publication. General Chemical Company. No. 155,232; May 23.
Publication. Hispanic American Publishing Co. No. 155,242; May 23.
Publication, Periodic. Halliwell & Patton Publishing Co. No. 155,237; May 23.
Publications. Delta Sigma Phi Fraternity. No. 155,219; May 23.
Publications, Monthly. E. H. Ahrens. No. 155,187; May 23.
Publications (Monthly). American Wholesale Corporation (Baltimore Bargain House). No. 155,194; May 23.
Refrigerators. I. F. Stevens. Nos. 155,289–90; May 23.
Rubber heels. Twin Tube & Rubber Company. No. 155,296; May 23.
Rubber stamps and marking devices. M. C. Lederer. No. 155,248; May 23.
Saws, saw sets, and screw drivers. Henry Disston & Sons, Incorporated. No. 155,221; May 23.
Serum for anti-hog-cholera. Pitman-Moore Company. No. 155,349; May 23.
Shirts, shirt waists, and waists. A. Neuville. No. 155,344; May 23.
Silk and dress satins, crêpe and silk shirtings, Broad. B. Edmund David, Inc. No. 155,218; May 23.
Silk piece goods. H. R. Mallinson & Co. No. 155,251; May 23.
Silver-plated hollow ware and silver-plated tableware. Middletown Silver Company. No. 155,341; May 23.
Sirups and a maltless, nonalcoholic beverage, Flavoring. G. A. Seel. No. 155,284; May 23.
Soap, Toilet. Commercial Soap Company. No. 155,314; May 23.
Spark plugs and spark-plug cores. L. A. Munger. No. 155,343; May 23.
Squawkers, balloons, balls, dolls, and animals. Faultless Rubber Company. No. 155,322; May 23.
Stamps, United States and foreign. Fennell Stamp Company. No. 155,227; May 23.
Stockings. Emery & Beers Company. Nos. 155,320–1; May 23.
Surgical appliances, Certain. Faultless Rubber Company. No. 155,323; May 23.
Sweaters. Greater Manhattan Knitting Mills, Inc. No. 155,330; May 23.
Sweaters and underwear of knitted fabric. Cadet Knitting Company. No. 155,310; May 23.
Sweaters, bathing suits, knitted caps, etc. Smith-McCord-Townsend Dry Goods Co. No. 155,356; May 23.
Tablet, Ironing. Bestever Products Co. No. 155,309; May 23.
Tackle blocks. P. B. Selter. No. 155,285; May 23.
Talking machines. Hochschild, Kohn & Company. No. 155,335; May 23.
Talking machines and supplies. Perfek'tone Corporation. No. 155,271; May 23.
Talking machines and talking-machine needles, record repeaters, etc. Reflexo Products Co. No. 155,275; May 23.
Teakettles, skillets, stew kettles, meat roasters, coffee and tea pots, etc., Aluminum. Burns Pattern & Machine Company. No. 155,210; May 23.
Textile fabrics, Certain. American Wholesale Corporation (Baltimore Bargain House). No. 155,193; May 23.
Textile machinery, Thread guides for. Mitchell-Bissel Company. Nos. 155,259–60; May 23.
Tire repair outfits, Rubber-. E. F. Cogley. No. 155,313; May 23.
Tires, Compound for sealing punctures and slow leaks in. Clinton & Cameron. No. 155,215; May 23.
Tires, rubber-tire casings, and inner tubes, Rubber. Canton-Blackstone Company. No. 155,311; May 23.
Tobacco extract. Trahern Tobacco Co. No. 155,294; May 23.
Tobacco, Smoking and chewing. Christian Peper Tobacco Co. No. 155,214; May 23.
Toilet preparations, Certain. M. Heidelberg. No. 155,332; May 23.
Toilet preparations, Certain. Lundborg Inc. No. 155,337; May 23.
Tools, Machine. Acme Machine Tool Company. No. 155,186; May 23.
Typewriter ribbons and carbon paper. Holbrook & Gibson. No. 155,243; May 23.
Veterinary medicine, Certain. D. S. Cook. No. 155,316; May 23.
Waists. Deutz & Ortenberg, Inc. No. 155,318; May 23.
Washboards. National Washboard Company. No. 155,266; May 23.
Washing machines, Laundry. H. C. Roberts Electric Supply Company. No. 155,276; May 23.
Watches. W. J. Bernard. No. 155,204; May 23.
Watches and watch movements. Elgin National Watch Company. No. 155,225; May 23.
Watches, watch movements, dials, and cases. Adolphe Schwob, Inc. No. 155,283; May 23.
Watches, watchcases, watch movements, and clocks. I. Ollendorff Co. No. 155,346; May 23.
Woolen piece goods. Atlantic Mills. No. 155,199; May 23.
Wrappers on waxed lunch rolls. Robertson Paper Co. No. 155,277; May 23.
Writing fluid. Royal Ink and Mucilage Co. No. 155,279; May 23.

ALPHABETICAL LIST OF TRADE-MARK TITLES.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Anticorrosive chemical compositions or compounds. Sozol Limited. No. 157,079; May 23.
Aprons, dresses, petticoats, nightgowns, etc., Bungalow. A. D. Finkel. Nos. 154,404–5; May 23.
Asphaltums, asphalt macadams, road oils, etc. Standard Oil Company (Incorporated in New Jersey). No. 157,180; May 23.
Automobile radiator caps. L. H. Smith. No. 158,650; May 23.
Batteries, Liquids for charging and recharging. Uradia Company. No. 153,629; May 23.
Bed springs. Union Bed and Spring Company. No. 161,908; May 23.
Beds, bed springs, cots, mattresses, pillows, etc., Iron. National Mattress Co. No. 157,951; May 23.
Belting. Security Rubber and Belting Company. No. 158,696; May 23.
Belting, Rubber fabric, and leather. M. I. Wilcox Company. No. 157,199. May 23.
Belts and belting for automobile and power transmission. Farran-Kinney Company. No. 159,019; May 23.
Beverage and sirup and extract for making same. F. M. Bonheim. No. 155,080; May 23.
Beverage and sirups for making same. Irondequoit Fruit Juice Co. No. 158,042; May 23.
Beverages and sirups for making same. Remer-Dell Products Corporation. No. 146,980; May 23.
Binocular optical instruments. A. Perrin. No. 158,834; May 23.
Binocular telescopic instruments. A. Perrin. No. 157,583; May 23.
Blouses, children's dresses, boys' wash suits, Middy. Maass & Kemper, Inc. No. 156,394; May 23.
Blouses, Ladies'. H. Metzler. No. 154,698; May 23.
Books, Blank home budget. Menter Co. No. 159,160; May 23.
Boots and shoes of leather. Juvenile Shoe Corporation of America. No. 158,044; May 23.
Brushes, Tooth, hair, etc. Mills Brothers Company. No. 161,934; May 23.
Calcined pulverized material. Quigley Furnace Specialties Co. No. 157,586; May 23.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Camisole and drawers, Combination. E. L. Roberts. No. 149,979; May 23.
Candies and chocolates, Hard and soft. Quaker City Chocolate & Confectionery Company. No. 157,634; May 23.
Candy. Boston Confectionery Company. No. 158,594; May 23.
Candy. Nunnally Company. No. 157,104; May 23.
Candy. Webers. No. 157,702; May 23.
Candy, Chocolate. Sioux Candy Company. No. 157,448; May 23.
Canned and bottle crab. T. Komada. Nos. 157,574 5; May 23.
Canned fruits and vegetables. H. A. Baker, Inc. No. 140,009; May 23.
Canned fruits and vegetables. Wholesale Distributors Co. No. 157,464; May 23.
Canned fruits, vegetables, and fish, tomato catchup, fruit preserves. Wholesale Distributors Co. No. 157,465; May 23.
Canned tomatoes. Lawndale Wholesale Grocery Co. No. 157,157; May 23.
Caps. Gilson Company. No. 153,453; May 23.
Cars and pressed-steel car wheels, Railway motor. Fair mont Gas Engine & Railway Motor Car Co. No. 160,803; May 23.
Catalogue, Monthly. Jaburg-Miller Co. No. 159,319; May 23.
Cement, Fire-brick. A. P. Green Fire Brick Co. No 158,977; May 23.
Chairs for children, High. Komfy Products Company. No. 161,322; May 23.
Chemical and pharmaceutical preparation. Society of Chemical Industry in Basle. No. 158,158; May 23.
Cigars. King-Ferree Co. No. 158,426; May 23.
Clocks. William L. Gilbert Clock Company. No. 160,059; May 23.
Clocks, Alarm. Marshall Field & Company. No. 161,536; May 23.
Clocks, watches, and component parts thereof. Western Clock Co. No. 158,908; May 23.
Cleaning, shining, and polishing preparation for shoes and leather articles. E. L. Eggers. No. 157,918; May 23.
Coal. I. O. Drewry Contracting Company. No. 157,659; May 23.
Coaster vehicles. Kashmere & Roberts. No. 159,758; May 23.
Coats and pants, hunting coats, and white-duck packers' frocks, Firemen's duck night. St. Joseph Tent & Awning Co. No. 153,702; May 23.
Corsets. T. Hynds. No. 156,448; May 23.
Corsets, brassières, corset waists, hosiery, etc. American Lady Corset Company. No. 152,000; May 23.
Cosmetic for treating the eyebrows. S. Markman. No. 157,937; May 23.
Cotton batting. Burton-Dixie Corporation. No. 159,553; May 23.
Cream, Skin. C. R. Harker, Stagg & Morgan. No. 154,145; May 23.
Creams, antiseptic beauty balm, hair tonic, hair-curling fluid, Face-cleansing and face. T. E. Isaacs. No. 155,890; May 23.
Cuffs and shirts. Sherwin-Spinner Company. No. 154,092; May 23.
Dentifrice. North American Hygienic Company. No. 144,245; May 23.
Deodorants. K. W. Moore. No. 156,591; May 23.
Disinfectants, antiseptics, and purifiers. West Disinfecting Company. No. 146,283; May 23.
Dresses, Women's and girls'. Friedman Dress Company. No. 153,283; May 23.
Dyes and dyestuffs. Grasselli Chemical Company. No. 154,508; May 23.
Dyes, Union and acid. H. Kohnstamm & Co. No. 157,928; May 23.
Eau de cologne. H. A. Wanklyn. No. 124,325; May 23.
Electric light and power plants. Perkins Corporation. No. 156,596; May 23.
Engines, Gasoline and hand-car. Fairmont Gas Engine & Railway Motor Car Co. No. 160,802; May 23.
Engines, Jointings and packings for. Kenilworth Manufacturing Co. No. 150,452; May 23.
Explosives, blasting powder, fuses, etc. Aktiengesellschaft Lignose. No. 155,249; May 23.
Explosives, firearms, equipments, and projectiles. E. I. du Pont de Nemours & Company. No. 161,305; May 23.
Exterminaitng fluids and disinfectants. Uncle Sam Chemical Co. No. 150,643; May 23.
Extracts to be used for beverage purposes. Schrumm-Schrumm Co. No. 158,337; May 23.
Eyeglasses and spectacles for athletic purposes. M. H. Harris. No. 157,524; May 23.
Eyeglasses, spectacles, and goggles. Gotham Optical Co. No. 157,482; May 23.
Fezes. Supreme Pyramid Ancient Egyptian Order of Sciots. No. 148,770; May 23.
Fibrous material used for heat and sound insulation and sheathing. United States Fiber Products Company. No. 144,756; May 23.
Figures of animals, Wooden. Crawford-Wilsey Co. No. 160,117; May 23.
Film-cleaning fluid. G. H. Bennett. No. 153,836; May 23.
Flour, Wheat. R. D. Johnson Milling Company of Allegany County. No. 163,220; May 23.
Game, Table. V. D. Blank. No. 158,288; May 23.
Garment for women and girls, Outer. V. Pope. No. 154,887; May 23.
Garments formed of rubberized cloth, Acid-resisting. Defiance Welding Company. No. 128,764; May 23.
Germicides and antiseptics. Parke, Davis & Company. No. 158,332; May 23.
Gloves. Steinberger Bros. Lobl Co. No. 153,411; May 23.
Gloves, Leather and twine. Steinberger Bros. Lobl Co. Nos. 154,672–3; May 23.
Golf clubs and iron headed golf clubs, Iron heads for. Wm. Gibson & Co. No. 159,505; May 23.
Golf clubs, Steel shafts for. Horton Manufacturing Co. No. 157,573; May 23.
Gypsum, plaster of Paris, and wall plaster, Calcined. United States Gypsum Company. No. 159,448; May 23.
Gypsum, plaster of Paris, wall and cement plasters, Calcined. United States Gypsum Company. No. 159,447; May 23.
Gypsum, plaster of Paris, wall and finishing plasters, Calcined. United States Gypsum Company. No. 159,442; May 23.
Gypsum, plaster of Paris, wall plaster, etc., Calcined. United States Gypsum Company. No. 159,439; May 23.
Gypsum, plaster of Paris, wall plaster, etc., Calcined. United States Gypsum Company. No. 159,635; May 23.
Hair bleach. J. H. Karp. No. 158,128; May 23.
Hair nets. Eastern Hair Net Trading Co. No. 152,241; May 23.
Hair nets. United States Hair Net Co. No. 156,121; May 23.
Hair pomade. Myers & Parker. No. 156,396; May 23.
Hats for ladies, misses, and children. Ogus, Rabinovitch and Ogus Co. No. 153,048; May 23.
Hats for women. Kohn, Adler & Co. No. 153,089; May 23.
Hats for women and children. Chicago Bargain House. No. 155,337; May 23.
Hats, Men's. O'Rourke, Eubanks Hat Co. No. 156,014; May 23.
Hats, Men's felt. F. Berg & Co. No. 153,498; May 23.
Hosiery. A. C. Hulse, Jr. No. 151,988; May 23.
Hosiery. May Hosiery Mills. No. 153,611; May 23.
Hosiery. Mock & Judson. No. 155,901; May 23.
Hosiery. Neal & Hyde, Incorporated. No. 149,924; May 23.
Hosiery. Peer-amid Company. No. 155,447; May 23.
Hosiery. Tamor Brothers. No. 152,815; May 23.
Hosiery and underwear of knitted and textile fabric. D. Brodinsky. No. 153,643; May 23.
Ice cream. Nestle's Food Company. No. 158,431; May 23.
Ice cream, Chocolate-coated. Flynn Dairy Company. No. 157,763; May 23.
Incense burners. Lockwood Studios. No. 147,113½; May 23.
Insecticides. Garden Chemical Co. No. 158,117; May 23.
Journal, Monthly. Spokesman Publishing Company. No. 159,224; May 23.
Labels, Blank gummed. A. W. Engel. No. 152,704; May 23.
Laundry tubs, Stationary. Chicago Granitine Manufacturing Company. Nos. 157,986–7; May 23.
Laxative. C. W. Redpath. No. 158,335; May 23.
Lead pencils, Mechanically-operated. M. S. Rodenberg Co. No. 158,057; May 23.
Leather, Substitute. Textileather Company. No. 161,512; May 23.
Liniment for rheumatism. E. E. Davis. No. 141,766; May 23.
Liniment for use in the treatment of rheumatism. J. H. Waugh. No. 158,272; May 23.
Liquid gauges. Akron-Selle Company. No. 157,015; May 23.
Locomotives, steam engines, etc., Rotating chain-driven. J. Mundy. No. 153,517; May 23.
Magazines, Monthly. Street & Smith Corporation. No. 158,654; May 23.
Magazines, Weekly. Street & Smith Corporation. No. 158,656; May 23.
Mattresses. Shifman Brothers. No. 157,963; May 23.
Mattresses. Stearns & Foster Company. Nos. 160,088–9; May 23.
Mattresses. Stearns & Foster Company. Nos. 160,091–2; May 23.
Mattresses. Utica Bedding Factory, Inc. No. 157,391; May 23.
Mattresses. Utica Bedding Factory, Inc. No. 158,692; May 23.
Mattresses, box springs, bed springs, and pillows. Akron Mattress Manufacturing Company. No. 158,549; May 23.
Medals and badges. Dieges & Clust. No. 152,120; May 23.
Medicinal preparation for the treatment of colds, influenza, and la grippe. W. E. Shuit, Incorporated. No. 158,406; May 23.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Medicines, Blood and asthma. Indian Remedy Company. No. 156,832; May 23.
Milk, Evaporated. American Milk Products Corporation. No. 152,732; May 23.
Milk, Evaporated. American Milk Products Corporation. No. 156,142; May 23.
Milk, Powdered. Merrell-Soule Company. No. 158,529; May 23.
Mouth wash. Zincloros Chemical Company. No. 158,353; May 23.
Necklaces, Imitation-pearl. L. N. Marx. No. 156,395; May 23.
Neckwear, Women's. T. F. Crowley. No. 155,432; May 23.
Numbering machines. Bates Manufacturing Company. No. 159,083; May 23.
Nut bar, Chocolate-covered. W. R. Montague Company. No. 157,528; May 23.
Oil, Flotation. American Pine Products Corporation. No. 127,792; May 23.
Oil, Salad and cooking. A. Cohen. No. 157,556; May 23.
Ointment for skin diseases. Exene Laboratories. No. 158,300; May 23.
Oleomargarine. Pacific Nut Butter Company. No. 139,750; May 23.
Overcoats, Men's and young men's. W. H. Wanamaker. No. 154,944; May 23.
Paper, Cover. J. W. Butler Paper Company. No. 139,955; May 23.
Pastes, Facial pack. M. E. Rowden. No. 158,094; May 23.
Pencils, Stylographic ink. H. A. Schmidt. No. 144,744; May 23.
Perfumery. A. Jourion. No. 134,650; May 23.
Periodical, Monthly. Butterick Publishing Company. No. 159,139; May 23.
Periodical, Monthly. Dixon & Hillen. No. 159,248; May 23.
Periodical, Monthly. Shoe and Leather Reporter Co. No. 158,262; May 23.
Pharmaceutical preparations. Frederick F. Ingram Company. No. 155,096; May 23.
Pharmaceutical preparations. Frederick F. Ingram Company. No. 155,098; May 23.
Pipes, Smokers'. W. W. Widoe. No. 161,216; May 23.
Piston rings. Everyday Piston Ring Company. No. 158,763; May 23.
Piston rings. R. M. Hallam. No. 153,350; May 23.
Pop-corn balls. Wagner Manufacturing Company. No. 157,789; May 23.
Preparation for treatment of ulcerous wounds. F. M. de Morales. No. 158,299; May 23.
Printing presses. Miehle Printing Press & Manufacturing Company. No. 155,565; May 23.
Proofing boxes, pan racks, sanitary tables, display counters, etc. Majestic Manufacturing Company. No. 157,767; May 23.
Publication, Monthly. Brewster Publications, Inc. No. 158,593; May 23.
Publication, Monthly. Buzza Company. No. 158,283; May 23.
Publication, Monthly. Hawkins Mortgage Co. No. 159,023; May 23.
Publication, Monthly. National Exchange Club. No. 158,994; May 23.
Pumps, Air. Patten Manufacturing Company. No. 150,332; May 23.
Pumps and parts thereof. Fort Wayne Engineering & Manufacturing Co. No. 143,386; May 23.
Pumps, Diaphragm. Ralph B. Carter Company. No. 142,471; May 23.
Raincoats. W. MacPherson. No. 156,455; May 23.
Raincoats and sweaters. Artistic Designers Inc. No. 149,112; May 23.
Rat poison. C. D. Berman. No. 157,090; May 23.
Refrigerators. G. R. Craw. No. 161,032; May 23.
Remedies, Family. National Consolidated Drug Co. No. 50,368; May 23.
Remedy for the treatment of blennorrhea. L. Euterapica. No. 153,929; May 23.
Remedy, Pile. Craven & Love. No. 155,015; May 23.
Repair outfits. Rubber-Weld Co. No. 142,034; May 23.
Rice. Pacific Trading Co. No. 162,045; May 23.
Rings, other jewelry, and precious-metal ware. Albert S. Samuels Co. Nos. 151,335–6; May 23.
Roller coasters. Eastern Engineering Company. No. 159,203; May 23.
Rouge, Face and lip. S. Markman. No. 157,936; May 23.
Rubber or composition rubber shoe soles and heels. Republic Rubber Corporation. No. 141,925; May 23.
Salve for piles, burns, sore throat, etc. M. Harris. No. 158,232; May 23.
Salve for treatment of rheumatism, etc., Medicinal. A. C. Conn. No. 153,334; May 23.
Salve, Healing. P. Cocuzza. No. 153,536; May 23.
Shirts, boys' shirts and blouses, Men's. Bob & Baskind. No. 155,802; May 23.
Shirts, Work. Western Shirt Company. No. 131,848; May 23.
Shock absorbers, Pneumatic. Kane Sales Company. No. 154,314; May 23.
Shoes and combinations of the same, Leather, fabric, and rubber. Levy & Weiss Shoe Co. No. 157,577; May 23.
Shoes, Men's leather. K-W Shoe Co. No. 157,926; May 23.
Shoes, slippers, and moccasins. A. L. Day. No. 147,416; May 23.
Silk knitted cloth. Banner Silk Knitting Mills. No. 157,355; May 23.
Silverware, pens, and jewelry. Alphonse W. Weiner, Inc. No. 149,158; May 23.
Skins, Dyed rabbit. A. Pierini. No. 145,703; May 23.
Slippers, Felt. Ohio Rubber Co. Nos. 151,944–5; May 23.
Stockings. Julius Kayser & Co. No. 155,439; May 23.
Stools and cabinets, Shoe-shining. Wallin Mfg. Co. No. 158,738; May 23.
Suits and coats, Men's and young men's. Lob, Hubbart & Silverman. No. 153,559; May 23.
Suits and trousers, Men's and boys' outer. Cohn, Goldwater Company. No. 150,352; May 23.
Sulphur and sulphur inoculated with bacteria. Texas Gulf Sulphur Company. No. 157,116; May 23.
Sulphur inoculated with bacteria. Texas Gulf Sulphur Company. No. 157,114; May 23.
Tablets for treatment of anæmia, loss of appetite, and as a general tonic. Raisin Products Co. of America. No. 157,734; May 23.
Tablets to be used for indigestion. J. E. De Van. No. 114,428; May 23.
Talking machine springs. Everybody's Talking Machine Company. No. 158,419; May 23.
Thread, Linen. Smith & Dove Mfg. Co. No. 158,195; May 23.
Thread, Lock-stitch machine. Barbour Brothers Co. No. 160,336; May 23.
Tires for automobiles, Rubber. McKone Tire & Rubber Company. No. 159,372; May 23.
Toaster, air heater, and hair drier, Electric. Fitz-Gerald Mfg. Company. No. 155,674; May 23.
Toilet preparations. H. Gabilla. No. 139,262; May 23.
Tonic, General medicinal. Nu Iron Laboratory Inc. No. 153,562; May 23.
Tool holders, expanding mandrels, vises, clamps, etc. Western Tool & Manufacturing Company. No. 145,196; May 23.
Toothbrushes. E. T. Slattery Company. No. 161,797; May 23.
Tooth paste. American Sundries Company. No. 150,257; May 23.
Toy dart or arrow. J. C. Milligan. No. 159,714; May 23.
Trucks, Motor. E. Goldman. No. 160,408; May 23.
Underwear, camisoles, brassières, chemises, etc. Z. Samuels. No. 151,637; May 23.
Underwear, women's knickerbockers, etc., Women's, children's, boys', and infants'. Thomas Dalby Company. No. 154,919; May 23.
Voltage switching and protective equipment, High-. Delta-Star Electric Company. No. 159,247; May 23.
Wall boards, blinds, doors, windows, casings, etc. North American Wood Products Corporation. No. 141,796; May 23.
Washboards. M. C. Frank. No. 159,860; May 23.
Washboards. W. C. Palmer. No. 159,880; May 23.
Washing machines. Grinnell Washing Machine Company. No. 158,424; May 23.
Washing machines, Metal clothes containers for. Hurley Machine Company. No. 157,421; May 23.
Watches. M. A. Zolla. No. 160,377; May 23.
Watches and clocks. Robt. H. Ingersoll & Bro. Nos. 158,474–5; May 23.
Watches and parts of watches. Kilchenmann Frères. No. 161,194; May 23.
Watches and watch movements. Katz & Ogush, Inc. No. 158,478; May 23.
Watches, watch movements, watchcases, and parts thereof. American-Swiss Watch Co. No. 159,455; May 23.
Waterproofed and rubberized fabrics. Pocono Rubber Cloth Co. No. 158,643; May 23.
Wheels, Vehicle. W. B. Kerrick. No. 152,375; May 23.
Wines, Champagne. Walbaum, Goulden & Co. Nos. 154,340–1; May 23.
Yarns, Knitting. H. Cohen. No. 160,231; May 23.

CLASSIFICATION OF PATENTS

ISSUED MAY 23, 1922.

NOTE.—First number=class, second number=subclass, third number=patent number.

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74: 1,416,850
102: 1,417,323
108: 1,417,100
117: 1,416,848
144: 1,417,101
3— 12: 1,417,267
4— 5: 1,417,280
5— 5: 1,417,253
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8 - 5: 1,417,206
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12— 1: 1,417,090
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67: 1,416,757
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15 - 10: 1,417,231
104.14: 1,416,673
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215: 1,416,841
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109: 1,416,733
116: 1,416,815
46— 4: 1,417,458
25: 1,417,454
40: 1,417,060
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41: 1,417,396
45: 1,417,190
46: 1,417,019
1,417,343
47: 1,417,071
61: 1,416,918
1,417,063
69: 1,416,741
49 — 5: 1,416,725
79: 1,416,947
51— 116: 1,416,952
131: 1,417,364
145: 1,417,290
166: 1,416,994
209: 1,416,728
1,416,729
214: 1,417,158
241: 1,417,228
53— 3: 1,417,243
7: 1,417,351
55 - 9: 1,417,309
145: 1,417,032
56— 262: 1,417,252
294: 1,416,784
346: 1,416,972
58 - 18: 1,416,870
60— 13: 1,416,867
62— 92: 1,417,292
115: 1,416,878
63— 15: 1,417,352
64— 8: 1,416,745
10: 1,416,988
14: 1,416,776
22: 1,417,349
1,417,410
24: 1,416,710
1,416,884
25: 1,417,072
26: 1,417,085
36: 1,416,838
55: 1,417,307
62: 1,416,680
89: 1,417,402
96: 1,417,432
65— 45: 1,417,444
66— 12: 1,417,290
28: 1,417,289
67— 6.1: 1,416,845
35: 1,417,004
116: 1,416,831
68— 9: 1,416,829
1,417,255
15: 1,416,825
18: 1,417,306
33: 1,417,240
70— 27: 1,417,264
29: 1,417,423
46: 1,417,148
47: 1,417,132
50: 1,417,430
53: 1,416,855
1,417,038
1,417,340
108: 1,416,790
71— 9: 1,417,248
72— 30: 1,417,399
38: 1,416,709
41: 1,416,919
71: 1,417,056
85: 1,417,445
97: 1,416,943
148: 1,416,888
73— 31: 1,416,814
52: 1,416,785
1,417,365
109: 1,416,794
74— 7: 1,416,778
1,417,426
26: 1,416,905
33: 1,417,122
39: 1,416,672
50: 1,417,099
1,417,300
54: 1,417,398
55: 1,416,720
58: 1,417,213
81: 1,416,798
1,416,893
1,417,138
97: 1,416,996
105: 1,417,346
108: 1,416,795
109: 1,417,355
75 - 1: 1,416,924
1,417,348
18: 1,417,153
76 88: 1,417,054
77 2: 1,417,278
32: 1,417,181
55: 1,416,777
78 60: 1,417,394
79 3: 1,417,199
81 30: 1,417,025
55: 1,417,354
58: 1,417,338
66: 1,416,685
128: 1,417,196
148: 1,417,210
174: 1,417,390
193: 1,417,331
82— 1: 1,416,920
83— 14: 1,417,389
44: 1,417,045
54: 1,416,922
60: 1,417,035
71: 1,417,189
85: 1,417,261
1,417,262
1,417,263
87: 1,416,928
84— 296: 1,417,174
310: 1,416,780
376: 1,417,107
386: 1,416,898
447: 1,417,191
85— 1.5: 1,417,115
1,417,149
1,417,150
2.4: 1,417,197
1,417,198
1,417,209
85 - 5: 1,416,700
19: 1,416,971
87 - 27: 1,416,925
88 - 18.7: 1,417,474
19.3: 1,417,005
1,417,098
20: 1,417,283
24: 1,417,089
1,417,326
89— 1: 1,416,827
1,416,828
90— 12: 1,416,981
13: 1,416,786
60: 1,416,970
91 3: 1,417,086
50: 1,417,195
51: 1,416,984
56: 1,416,773
68: 1,416,796
71: 1,416,865
93 - 54: 1,417,155
94 - 13: 1,417,010
35: 1,417,377
95 - 42: 1,416,854
73: 1,417,403
98: 1,417,077
97 - 12: 1,416,991
22: 1,416,937
34: 1,417,381
40: 1,417,207
1,417,221
42: 1,417,270
62: 1,416,906
98— 2: 1,417,194
22: 1,417,268
23: 1,416,813
26: 1,417,316
99— 2: 1,417,182
5: 1,417,083
11: 1,417,412
100— 25: 1,416,830
31: 1,417,329
101— 1: 1,416,682
3: 1,416,967
97: 1,416,759
132: 1,417,358
178: 1,416,712
395: 1,417,328
102— 12: 1,417,460
29: 1,417,299
1,417,475
36: 1,416,856
103 - 8: 1,417,415
43: 1,417,418
77: 1,416,731
104— 29: 1,417,242
41: 1,417,384
53: 1,416,783
88: 1,417,062
90: 1,417,070
105— 4: 1,417,135
117: 1,417,302
144: 1,417,088
165: 1,416,775
175: 1,416,717
1,416,718
180: 1,417,044
232: 1,417,322
243: 1,416,711
308: R.5,360
364: 1,417,043
1,417,131
106— 34: 1,416,684
107— 1: 1,417,446
14: 1,416,735
15: 1,416,987
27: 1,417,157
56: 1,417,096
58: 1,416,889
112— 83: 1,416,894
147: 1,416,998
197: 1,417,476
241: 1,416,697
264: 1,416,801
113— 35: 1,417,050
59: 1,417,448
114 - 18: 1,416,950
114— 52: 1,416,754
83: 1,417,260
191: 1,416,911
196: 1,417,165
217: 1,417,222
116— 33: 1,417,217
34: 1,417,168
36: 1,417,419
52: 1,417,251
1,417,388
109: 1,417,332
118: 1,417,312
137: 1,417,124
173: 1,416,669
117— 46: 1,416,941
118— 49: 1,417,455
1,417,456
54: 1,417,454
119— 27: 1,417,184
32: 1,417,225
54: 1,417,212
61: 1,417,226
75: 1,416,936
103: 1,417,230
140: 1,417,245
120— 24: 1,416,863
59: 1,416,862
73: 1,417,081
93: 1,417,034
116: 1,416,836
121— 35: 1,417,136
88: 1,417,003
122— 141: 1,416,805
369: 1,416,762
391: 1,416,708
460: 1,417,023
469: 1,416,809
473: 1,417,024
476: 1,416,835
123— 59: 1,416,977
65: 1,417,310
122: 1,417,127
149: 1,416,670
1,417,134
169: 1,416,868
1,416,907
174: 1,417,028
191: 1,417,133
124— 13: 1,417,392
126 - 4: 1,417,404
80: 1,417,030
99: 1,416,900
190: 1,416,956
272: 1,417,224
295: 1,417,259
332: 1,417,215
350: 1,416,916
127— 23: 1,417,467
128— 87: 1,417,414
100: 1,417,318
303: 1,417,142
129— 1: 1,416,903
130— 2: 1,416,820
5: 1,417,356
15: 1,417,469
131— 51: R.15,361
61: 1,416,982
1,416,983
132— 43: R.15,363
83: 1,417,333
134— 1: 1,417,258
54: 1,416,852
1,417,103
58: 1,417,033
60: 1,416,955
137 13: 1,416,978
103: 1,416,869
153: 1,416,791
138— 17: 1,417,317
139— 32: 1,416,752
56: 1,416,931
80: 1,417,220
140— 3: 1,417,257
141— 9: 1,417,162
142— 1: 1,417,274
143— 43: 1,416,923
48: 1,416,676
144— 2: 1,416,677
3: 1,417,425
27: 1,417,431
293: 1,416,874
145— 47: 1,416,904
146— 3: 1,417,272
6: 1,416,818
7: 1,417,360
9: 1,417,453
11: 1,416,853
1,417,273
14: 1,417,266
148— 24: 1,417,428
150— 1.5: 1,417,380
28: 1,416,690
151— 17: 1,417,334
152— 1: 1,417,008
1,417,051
12: R.15,359
13: 1,417,383
14: 1,416,806
1,417,055
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1,417,186
16: 1,417,359
17: 1,416,873
18: 1,416,917
41: 1,417,311
153— 34: 1,417,397
65: 1,417,249
72: 1,417,324
155 - 37: 1,417,250
68: 1,417,443
138: 1,416,693
156 - 24: 1,417,247
28: 1,417,298
39: 1,417,104
157— 1: 1,416,678
127: 1,417,027
158 - 7.5: 1,416,990
28: 1,416,734
36: 1,416,915
46.5: 1,416,885
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63: 1,417,371
66: 1,417,159
74: 1,417,146
116: 1,416,887
119: 1,417,120
161— 5: 1,416,910
162— 4: 1,416,954
164— 19: 1,416,707
23: 1,416,721
47: 1,416,800
48: 1,417,117
117: 1,416,877
167— 6: 1,417,232
9: 1,417,091
169— 42: 1,416,713
170— 10: 1,417,438
62: 1,417,000
171— 95: 1,416,824
1,417,114
209: 1,416,789
222: 1,417,109
229: 1,417,143
172— 8: 1,417,342
179: 1,416,804
173— 332: 1,417,452
175— 367: 1,416,860
375: 1,416,851
176— 36: 1,417,287
178— 22: 1,416,765
179— 119: 1,417,479
175: 1,416,724
180— 1: 1,417,193
10: 1,417,403
14: 1,416,753
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17: 1,416,921
19: 1,416,993
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83: 1,416,861
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34: 1,416,995

183— 38: 1,417,052
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184— 2: 1,416,668
13: 1,416,803
23: 1,416,871
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185— 39: 1,417,314
187— 1: 1,416,959
49: 1,417,449
1,417,450
61: 1,417,451
188— 1: 1,417,203
99: 1,416,822
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145: 1,417,241
199: 1,416,980
259: 1,416,979
1,417,069
189— 34: 1,417,102
191— 44.1: 1,417,408
56: 1,417,350
192— 15: 1,417,022
17: 1,417,465
116: 1,417,093
195— 15: 1,417,477
196— 24: 1,416,890
1,416,891
197— 87: 1,417,304
107: 1,416,842
126: 1,417,472
180: 1,416,799
198— 29: 1,416,763
163: 1,416,743
200— 17: 1,417,284
24: 1,417,361
26: 1,416,833
46: 1,416,973
48: 1,417,420
67: 1,417,405
91: 1,416,953
140: 1,416,722
202— 9: 1,417,113
204— 1: 1,416,929
1,417,413
6: 1,416,692
1,417,464
29: 1,416,738
1,416,761

204— 29: 1,416,787
1,416,788
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1,417,214
32: 1,417,046
38: 1,416,704
64: 1,417,303
206— 1: 1,417,121
7: 1,417,144
38: 1,417,160
39: 1,416,909
208— 71: 1,417,447
100: 1,416,942
210— 8: 1,416,899
172: 1,417,205
211— 13: 1,417,009
14: 1,416,767
1,416,823
16: 1,416,689
1,417,188
1,417,471
20: 1,416,935
32: 1,416,882
212— 17: 1,417,014
1,417,015
38: 1,417,386
64: 1,417,013
140: 1,416,958
213— 67: 1,416,681
1,417,112
1,417,335
1,417,373
214 - 102: 1,416,933
215— 51: 1,417,282
216— 25: 1,417,362
217— 2: 1,417,295
21: 1,416,934
44: 1,417,337
89: 1,417,166
219— 2: R. 15,364
10: 1,416,879
1,416,883
1,417,126
17: 1,416,839
19: 1,416,992
1,417,079
24: 1,416,750
25: 1,417,421
32: 1,417,422
34: 1,416,963

219— 34: 1,416,964
1,416,965
1,417,427
37: 1,417,154
38: 1,416,938
1,417,095
1,417,308
39: 1,417,315
1,417,409
41: 1,416,872
1,416,897
42: 1,416,688
44: 1,417,074
49: 1,416,948
51: 1,417,151
57: 1,416,908
70: 1,417,073
220 - 46: 1,417,341
75: 1,416,849
221— 23: 1,417,141
60: 1,417,271
97: 1,416,840
100: 1,417,439
113: 1,417,040
223— 37: 1,417,357
224 - 29: 1,417,416
38: 1,417,223
225— 2: 1,416,779
226 - 75: 1,416,997
108: 1,417,042
228 61: 1,417,353
229— 47: 1,417,296
230— 9: 1,417,470
24: 1,417,058
1,417,059
27: 1,417,105
1,417,163
32: 1,416,705
34: 1,416,695
1,416,696
232— 4: 1,417,164
41: 1,416,914
1,417,382
233 - 2: 1,417,064
234— 1.5: 1,416,751
19: 1,417,461
235— 59: 1,417,105
60: 1,416,766
62: 1,416,974

235—103.5: 1,417,048
1,417,049
144: 1,417,011
236 15: 1,417,374
237 12.3: 1,416,946
238 - 69: 1,416,686
295: 1,416,819
304: 1,417,366
322: 1,417,173
240 - 41: 1,416,749
44: 1,417,053
1,417,123
48.4: 1,417,128
49: 1,417,457
52: 1,417,330
115: 1,417,145
241— 6: 1,416,868
242— 70: 1,417,313
79: 1,417,288
85: 1,417,429
244— 2: 1,416,747
1,417,017
246— 71: 1,417,016
169: 1,417,185
170: 1,416,926
448: 1,417,297
248— 2: 1,416,896
22: 1,416,969
30: 1,417,327
32: 1,416,679
250— 20: 1,416,774
251— 6: 1,416,807
49: 1,417,291
93: 1,416,732
123: 1,416,771
144: 1,417,235
1,417,047
252—
253— 39: 1,416,760
1,417,029
70: 1,416,702
77: 1,416,701
254— 2: 1,416,675
10: 1,416,674
35: 1,416,755
44: 1,416,999
86: 1,416,736
95: 1,416,912
98: 1,417,254
185: 1,417,041
255— 42: 1,417,227

255— 71: 1,417,363
257— 125: 1,416,944
126: 1,417,026
1,417,036
127: 1,417,037
129: 1,416,945
130: 1,416,837
1,417,087
1,417,387
131: 1,417,466
259— 59: 1,417,219
260— 11: 1,417,167
57: 1,417,367
125: 1,417,277
1,417,369
143: 1,417,368
156: 1,416,859
261— 39: 1,416,913
41: 1,416,857
42: 1,416,858
262— 39: 1,416,742
263— 6: 1,417,012
13: 1,417,478
33: 1,416,699
42: 1,416,746
43: 1,417,092
46: 1,416,716
264 - 10: 1,417,204
265 - 30: 1,416,730
47: 1,417,462
69: 1,416,719
266 - 6: 1,416,811
267 - 17: 1,416,782
1,417,175
1,417,176
1,417,177
1,417,178
1,417,179
30: 1,417,092
50: 1,417,279
52: 1,416,797
268— 9: 1,417,173
271— 31: 1,416,985
274— 14: 1,417,111
41: 1,417,339
279— 53: 1,417,169
280— 22: 1,417,172
44: 1,416,740
87.5: 1,416,864

280— 124: 1,417,256
147: 1,416,881
185: 1,417,385
961: 1,417,320
283 - 1: 1,416,715
5: 1,416,792
56: 1,417,211
284 19: 1,416,781
285 - 24: 1,417,433
146: 1,417,411
287 - 52: 1,417,161
54: 1,417,229
290 - 37: 1,416,802
292 - 169: 1,417,239
178: 1,416,703
220: 1,417,391
263: 1,417,110
317: 1,416,683
293— 37: 1,417,321
45: 1,417,305
55: 1,416,834
1,417,118
294 21: 1,416,932
28: 1,416,744
46: 1,417,378
90: 1,417,436
102: 1,416,930
295— 1: 1,417,140
6: 1,417,125
24: 1,416,816
45: 1,417,147
93: 1,417,076
97: 1,417,218
298 - 19: 1,417,187
23: 1,416,975
299— 78: 1,417,459
139: 1,417,031
301— 9: 1,417,119
1,417,276
23: 1,417,152
30: 1,417,285
33: 1,416,949
1,416,940
1,417,171
44: 1,416,949
1,417,020
63: 1,417,233
303— 84: 1,417,238

ALPHABETICAL LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 30TH DAY OF MAY, 1922.

NOTE.—Arranged in accordance with the first significant character or word of the name. (In accordance with city and telephone directory practice.)

Abare, Roy, Chazy, N. Y. Slide protractor. No. 1,417,878; May 30.
Abbott, Ezekiel S., Detroit, Mich. Railway crossing. No. 1,417,964; May 30.
Abramowitz, Joseph, Madison, Ill. Arch support. No. 1,418,048; May 30.
Adere, Hugo, East Orange, N. J., assignor to J. F. Jelenko & Co., New York, N. Y. Dental clasp. No. 1,417,879; May 30.
Air-O-Mix, Incorporated. (See Beers, Henry S., assignor.)
Air Reduction Company. (See Ragonnet, Eugene L., assignor.)
Aktiengesellschaft "Eos." (See Schneiders, Gottfried, assignor.)
Alderfer, John M. (See Trump, Elno H., assignor.)
Alien Property Custodian. (See Koch, Norbert, assignor.)
Allen, Charles J., Moorestown, N. J., and J. Mader, Philadelphia, Pa., assignors to S. L. Allen & Co., Inc. Agricultural implement. No. 1,418,049; May 30.
Allen, Edward B., Newtown, Conn., assignor to The Singer Manufacturing Company, Elizabeth, N. J. Buttonhole-sewing machine. No. 1,418,223; May 30.
Allen, S. L., & Co. (See Allen, C. J., and Mader, assignors.)
Altergott, Henry, Sheboygan, Wis. Attachable band brake. No. 1,417,880; May 30.
Ambrose, Davis, Louisville, Ky. Rail clamp. No. 1,418,122; May 30.
American Arch Company. (See Himmelright, Raleigh J., assignor.)
American Bosch Magneto Corporation. (See Schwarzmann, Wolfgang E., assignor.)
American Can Company. (See Widell, Magnus E., assignor.)
American Engineering Corporation. (See Malm, Axel C. V., assignor.)
American La France Fire Engine Company. (See Knoblock, James W., assignor.)
American Sanitary Lock Co. (See Morgan, Donald C., assignor.)
American Seamless Container Company. (See Hawley, Jess B., assignor.)
American Smelting & Refining Company. (See Van Amburgh, Charles, assignor.)
American Type Founders Company. (See Benton, Linn B. and M. F., assignors.)
Anderson, E. D., Inc. (See Anderson, Ernest D., assignor.)
Anderson, Ernest D., Long Beach, assignor to E. D. Anderson, Inc., New York, N. Y. Means for wrapping and packing articles. No. 1,417,591; May 30.
Anderson, Harry T., Butler, Pa., assignor to Harry Vissering & Company, Chicago, Ill. Manufacture of railway draft-gear yokes. No. 1,417,480; May 30.
Anderson, Lauritz W., Waterbury, Conn., Shade holder. No. 1,417,481; May 30.
Anderson, Robert J., Sidney, Ohio. Pivoted wringer structure for washing machines. No. 1,417,656; May 30.
Andlauer, Albert P. (See Becker, F. A., and Andlauer.)
Andrusyszyn, Fedio. (See Haniuk, Wasyl, assignor.)
Anthos, Frank H., Boston, assignor of one-eighth to D. G. Carzis, Cambridge, one-eighth to J. Carzis, one-eighth to J. G. Carzis, and one-eighth to G. Picradis, Lynn, Mass. Metal heel. No. 1,417,881; May 30.
Arntz, Lew, Des Moines, Iowa. Fastener for envelopes. No. 1,417,790; May 30.
Aromint Manufacturing Company, The. (See Varga, Paul, assignor.)
Arrowsmith Manufacturing Company. (See George, Harry C., assignor.)
Arthurs, Emil, Portsmouth, Ohio. Gearing attachment for clothes wringers. No. 1,418,224; May 30.
Aspelin, Julius O., Standia Township, Murray County, Minn. Fishhook. No. 1,417,482; May 30.
Atwood, Leonard, Boston, Mass., assignor to A. H. Gillard, Englewood, N. J. Device for charging internal-combustion engines. No. 1,417,483; May 30.
Austin, Frederick C. (See French, James C., assignor.)
Austin Manufacturing Company. (See Liddell, Moses V., assignor.)
Automatic Wrapping Machine Co. (See Scholin, Axel, assignor.)
Automatic Wrapping Machine Co. (See Scholin, Axel R., assignor.)
Axelton, Andrew, Graettinger, Iowa. Agricultural implement. No. 1,418,123; May 30.
Ayotte, Joseph R., Chicago, Ill. Storm protector for windshields of automobiles. No. 1,418,121; May 30.
Bable, Edward M., Sistersville, W. Va., assignor of one-half to T. S. Hanes, Kanauga, Ohio. Nut lock. No. 1,418,050; May 30.
Bagley, Joseph D., Springville, Utah. Treating photographic dry plates or films. No. 1,417,791; May 30.
Baker, Linnaeus E., assignor to Wayne Oil Tank and Pump Company, Fort Wayne, Ind. Apparatus for housing hose. No. 1,417,484; May 30.
Baldwin, William H., Middletown, Conn. Tractor lawn mower. No. 1,417,485; May 30.
Ballman, Edwin C., St. Louis, Mo., assignor to Valley Electric Company, Wilmington, Del. System of electrical distribution. No. 1,417,710; May 30.
Ballman, Edwin C., St. Louis, Mo., assignor to Valley Electric Company, Wilmington, Del. Lighting system for automobiles. No. 1,418,051; May 30.
Banwart, William R., West Bend, Iowa. Road leveler. No. 1,418,225; May 30.
Barnum, Starr H. (See Curry, M., and Barnum.)
Bartenstein, John J., Cleveland, Ohio, assignor to The Fairmount Tool and Forging Company. Adjustable spanner wrench. No. 1,417,792; May 30.
Bartha, Julius, and A. E. Glassmann, New York, assignors to Glassmann-Bartha Welding Corp., New York, N. Y. Propeller. No. 1,417,486; May 30.
Barton, Charles N., assignor of one-third to W. Peek and one-third to J. W. Langley, Indianapolis, Ind. Sectional machinery repair washer. No. 1,418,052; May 30.
Barwell, John W., J. Ward, N. Nelson, J. Hingher, W. E. Booth, and W. L. Blows, assignors to Blatchford Calf Meal Company, Waukegan, Ill. Feeding apparatus. No. 1,418,267; May 30.
Baumann, Frederick, Jr., East Orange, N. J. Cutting machine. No. 1,418,053; May 30.
Baumgartl, Leroy, assignor to Federal Cement Tile Company, Chicago, Ill. Roof structure. No. 1,417,487; May 30.
Bayer, Matthew F., assignor to Simmons Company, Kenosha, Wis. Wall bed. No. 1,418,054; May 30.
Bayer, Matthew F., assignor to Simmons Company, Kenosha, Wis. Extension couch. No. 1,418,055; May 30.
Bayne, George G., Bushnell, Ill. Road drag. No. 1,417,882; May 30.
Beach, Howard L. (See Clark, C. H., and Beach.)
Beardsley, Paul R., et al., trustees. (See Warren, J. R., and Brechting, assignors.)
Beck, Albert, assignor to McGill Ticket Punch Company, Chicago, Ill. Punch. No. 1,417,488; May 30.
Becker, Frank A., and A. P. Andlauer, Kansas City, Mo. Riveting tool. No. 1,417,711; May 30.
Beckley-Ralston Company, The. (See Bockius, Walter A., assignor.)
Beckwith-O'Neill Company. (See O'Neill, Eugene F., assignor.)
Beebe, Norman H. (See Duvall, G. W., and Beebe.)
Beers, Henry S., New York, N. Y., assignor, by mesne assignments, to Air-O-Mix, Incorporated. Aerating and mixing device. No. 1,417,883; May 30.
Belcher Aerial Manufacturing Company. (See Belcher, Osmond T., assignor.)
Belcher, Mark, assignor of one-third to G. H. Davis, West Columbia, Tex. Oil-treating mixer. No. 1,417,965; May 30.
Belcher, Osmond T., Los Angeles, Calif., assignor to Belcher Aerial Manufacturing Company. Wing-spar construction for aeroplanes. No. 1,417,657; May 30.
Bell & Howell Company. (See Howell, Albert S., assignor.)
Bennett, Joseph O., Shreveport, La. Post for well-drilling rotaries. No. 1,418,056; May 30.
Benton, Linn B. and M. F., Plainfield, assignors to American Type Founders Company, Jersey City, N. J. Fonting apparatus. No. 1,418,057; May 30.
Benton, Morris F. (See Benton, Linn B. and M. F.)
Berg, Richard O. and S., assignors to Michigan Steel Tube Products Co., Detroit, Mich. Tube-welding machine. No. 1,418,058; May 30.
Berg, Simon. (See Berg, Richard O. and S.)
Berger, George R. (See Chamberlain, Rufus N., assignor.)

Berkowitz, Samuel, New York, assignor to himself and Benjamin Lubliner, Brooklyn, N. Y. Overalls. No. 1,418,124; May 30.
Bernier, Alcide J., Washington, D. C. Aeroplane. No. 1,417,884; May 30.
Biehl, Bernard, Sr., Newark, N. J., assignor to J. L. Sommer Manufacturing Co. Key case. No. 1,418,059; May 30.
Biggs, William A., Meridian, Miss. Wheel antislipping attachment. No. 1,418,060; May 30.
Blaski, Benjamin P., assignor to Blaski Manufacturing Co., Chicago, Ill. Skylight. No. 1,418,061; May 30.
Blaski Manufacturing Co. (See Blaski, Benjamin P., assignor.)
Blatchford Calf Meal Company. (See Barwell, J. W., Ward, Nelson, Hingher, Booth, and Blows, assignors.)
Blaw-Knox Company. (See Garlinghouse, Leslie H., assignor.)
Block, Alexander, New York, N. Y. Typewriting machine. No. 1,417,489; May 30.
Blows, Wilbur L. (See Barwell, J. W., Ward, Nelson, Hingher, Booth, and Blows.)
Boa, Robert G. C., Chicago, Ill., assignor to Remington Accounting Machine Corporation, New York, N. Y. Calculating machine. No. 1,418,062; May 30.
Bockius, Walter A., Wilmette, assignor to The Beckley-Ralston Company, Chicago, Ill. Bumper. No. 1,417,712; May 30.
Bolls, William W., Washington, D. C. Bead threader. No. 1,417,713; May 30.
Booth, Walter E. (See Barwell, J. W., Ward, Nelson, Hingher, Booth, and Blows.)
Bossetti, Charles P., assignor to Pfister & Vogel Leather Co., Milwaukee, Wis. Pigment stirring pan. No. 1,417,885; May 30.
Both, Tonjes A., Stratford, Conn., assignor to The Connecticut Electric Manufacturing Company. Renewable cartridge fuse. No. 1,417,966; May 30.
Bourque, David, assignor to G. W. J. Murphy Company, Amesbury, Mass. Turnbutton fastener. No. 1,417,658; May 30.
Boyer, William E., assignor to S. D. Wright, Cleveland, Ohio. Door-handling mechanism. No. 1,417,714; May 30.
Boyle, Edward M., Watertown, N. Y. Combination pneumatic locking and signaling apparatus. No. 1,418,226; May 30.
Brandon, Arthur H., & Company. (See Brandon, Arthur H., assignor.)
Brandon, Arthur H., assignor to Arthur H. Brandon & Company, Toledo, Ohio. Pipe-handling apparatus. No. 1,417,490; May 30.
Brandt, Andrew G., Scranton, Pa. Fastener for umbrella stretchers and ribs. No. 1,417,491; May 30.
Brandt, Joseph M., Bellevue, Iowa. Tool. No. 1,417,492; May 30.
Braun Company, The. (See Braun, William F. H., assignor.)
Braun, William F. H., assignor to The Braun Company, Philadelphia, Pa. Meat slicer. No. 1,418,063; May 30.
Brechting, Alfred. (See Warren, J. R., and Brechting.)
Bremmer, George D., Brooklyn, N. Y., and E. E. Troutman, Ashland, Pa. Mail-bag-delivery apparatus. No. 1,418,064; May 30.
Briare, Frank B. (See Thurston, Julius T., assignor.)
Brock, Edward L., administrator. (See Brock, Matthias.)
Brock, Holden, St. Louis, Mo. Machine for forming plastic tile. No. 1,418,227; May 30.
Brock, Matthias, deceased, Boston; by E. L. Brock, administrator, Beverly, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J. Lasting machine. No. 1,417,493; May 30.
Broege, Robert J., Harvey, Ill., assignor to Buda Company. Lubricating device for gas engines. No. 1,417,659; May 30.
Bronicki, Wladyslaw. (See Putkowski, Charles, assignor.)
Brookes, Elijah, Stoke-on-Trent, England. Die for forming handles for cups, etc. No. 1,417,967; May 30.
Brookes, Elijah, Stoke-on-Trent, England. Apparatus for the manufacture of pottery. No. 1,417,968; May 30.
Brown, Theophilus, assignor to Deere & Company, Moline, Ill. Tractor hitch. No. 1,418,228; May 30.
Bruner, Robert L., Corinth, Miss. Sampling apparatus. No. 1,418,065; May 30.
Bryce, James W., Binghamton, assignor to International Time Recording Company of New York, Endicott, N. Y. Recording lock. No. 1,417,715; May 30.
Buda Company. (See Broege, Robert J., assignor.)
Buddle, George T., Chicago, Ill. Fish lure. No. 1,418,229; May 30.
Bugenhagen, George H., Minot, N. Dak. Radiator valve. No. 1,417,592; May 30.
Bunting, Theodore R., Norfolk, Va. Radiotransmitting system. No. 1,418,066; May 30.
Burson, Harry H., assignor to Simplex Steel Products Company, Chicago, Ill. Clip for plaster boards and the like. No. 1,417,793; May 30.
Burstall, William H., and J. S. Turner, Oxnard, Calif., assignor of two-thirds to said Burstall and one-third to said Turner. Reversible wrench. No. 1,417,969; May 30.
Butler, Joseph, Auckland, New Zealand, assignor to The Kauri Timber Company, Limited, Melbourne, Victoria, Australia. Wooden panel. No. 1,418,067; May 30.
Cadwell, Sidney M., New York, N. Y., assignor to The Naugatuck Chemical Company. Vulcanization of rubber employing amines and open-chain aldehydes and similar substances and products obtained thereby. No. 1,417,970; May 30.
Caimi, Domenico, et al. (See Liuni, Salvatore, assignor.)
Caldwell, Harold G. (See Ehrenfelde, R., and Caldwell.)
Campbell, Argyle, assignor to Enterprise Railway Equipment Company, Chicago, Ill. Car-door-locking mechanism. No. 1,417,494; May 30.
Campbell, Argyle, assignor to Enterprise Railway Equipment Company, Chicago, Ill. Car-door-locking mechanism. No. 1,417,495; May 30.
Campbell, Donald J., et al., trustees. (See Warren, J. R., and Brechting, assignors.)
Campbell, Hardy W., Oakland, Calif. Rotary disk cultivator. No. 1,417,971; May 30.
Campbell, Walter T., St. Louis, Mo. Tire lock. (Reissue.) No. 15,365; May 30.
Capellman, Hubert J., and R. Hayhurst, South Chicago, Ill. Potato-peeling apparatus. No. 1,418,230; May 30.
Carlino, Frank, Buffalo, N. Y. Tomato masher. No. 1,418,231; May 30.
Carlson, Frank W., Chicago, Ill. Plumbing system. No. 1,417,669; May 30.
Carlson, Gustav W., assignor to The Torbensen Axle Company, Cleveland, Ohio. Wheel and axle construction. No. 1,417,972; May 30.
Carmean, James H., Kansas City, Mo. Hand level. No. 1,417,496; May 30.
Carroll, William P., Horton, Kans. Metal-working tool. No. 1,418,125; May 30.
Cartlidge, Frank, Claremont, N. H., assignor to Sullivan Machinery Company. Mining machine. No. 1,417,716; May 30.
Cartlidge, Frank, Claremont, N. H., assignor to Sullivan Machinery Company. Transmission mechanism. No. 1,418,126; May 30.
Carvelle, Georges A., Paris, France. Multicellular arrangement for the raising of liquids. No. 1,417,886; May 30.
Cary, George W., Greenfield, Mass. Saw guide. No. 1,417,973; May 30.
Cary, Harry E., and T. T. McGuire, Oakland, Calif. Dirigible headlight. No. 1,417,497; May 30.
Carzis, Demetrius G., et al. (See Anthos, Frank H., assignor.)
Carzis, James, et al. (See Anthos, Frank H., assignor.)
Carzis, John G., et al. (See Anthos, Frank H., assignor.)
Case, J. I., Threshing Machine Company. (See Davies, David P., assignor.)
Cesar, Vital, Brussels, Belgium. Controlling device for signals having several positions. No. 1,418,127; May 30.
Chamberlain, Rufus N., assignor of one-half to G. R. Berger, Chicago, Ill. Locomotive. No. 1,417,498; May 30.
Charles, Louis A., Paris, France. Process and apparatus for fuel injection in internal-combustion engines. No. 1,418,232; May 30.
Cheney, Forest, assignor to Cheney Talking Machine Company, Chicago, Ill. Sound box. No. 1,417,499; May 30.
Cheney Talking Machine Company. (See Cheney, Forest, assignor.)
Chicago Steel Wheel Co. (See Dalrymple, William P., assignor.)
Cholet, Louis A. C., Montreuil-sous-Bois, France. Preserving in the fresh condition organic matters and particularly meat and fish. No. 1,418,233; May 30.
Christine, John M., Ford City, Pa. Apparatus for polishing plane surfaces. No. 1,417,593; May 30.
City Trust Co. Branch of the Marine Trust Co. of Buffalo, trustee. (See Graham, Andrew W., assignor.)
Clark Car Company. (See Clark, C. H., and Beach, assignors.)
Clark, Charles H., Library, and H. L. Beach, Mount Lebanon, Pa., assignors to Clark Car Company. Shaft-control device. No. 1,417,794; May 30.
Cleary, Edwin, London, England. Liquid vaporizer. No. 1,418,234; May 30.
Clebo, Steve. (See Panik, J., and Clebo.)
Clefton, Claud J. and G. J., Owatonna, Minn. Gas generator. No. 1,417,974; May 30.
Clefton, Guy J. (See Clefton, Claude J. and G. J.)
Cobb, Augustus A., Marion, Mass. Lamp attachment. No. 1,418,128; May 30.
Coe, Edward, Battle Creek, Mich. Toboggan and slide. No. 1,417,594; May 30.
Coley, Albert, and A. W. Marler, Sapulpa, Okla. Advertisement distributor. No. 1,417,500; May 30.
Collier, William H., Brentwood, Tenn. Carburetor. No. 1,417,501; May 30.
Collins, Donley S., Cedar Rapids, Iowa. Self-measuring visible liquid pump. No. 1,418,129; May 30.
Collins, John F., Philadelphia, Pa. Automobile starting device. No. 1,418,068; May 30.
Collins, William J., Brooklyn, N. Y. Grinding machine. No. 1,418,235; May 30.
Comment, Paul, assignor to Société Fabriques de Produits Chimiques de Thann et de Mulhouse, Mulhouse, Alsace, France. Manufacture of potassium sulphate and hydrochloric acid. No. 1,417,887; May 30.
Connecticut Electric Manufacturing Company, The. (See Both, Tonjes A., assignor.)
Conrad, Frank, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company. Distributor for ignition apparatus. No. 1,417,717; May 30.

Cook, Albert E., Evanston, and T. Van Tuyl, Kankakee, Ill.; said Van Tuyl assignor to said Cook. No. 1,417,795; May 30.
Cook, Albert E., Evanston, and T. Van Tuyl, Kankakee, Ill.; said Van Tuyl assignor to said Cook. Interchangeable truck and tractor attachment. No. 1,417,796; May 30.
Cook, Albert E., Evanston, and T. Van Tuyl, Kankakee, Ill.; said Van Tuyl assignor to said Cook. Speed-changing gear. No. 1,417,797; May 30.
Cook, Albert E., Evanston, and T. Van Tuyl, Kankakee, Ill.; said Van Tuyl assignor to said Cook. Speed-change tractor attachment for automobiles. No. 1,417,798; May 30.
Cook, Albert E., Evanston, and T. Van Tuyl, Kankakee, Ill.; said Van Tuyl assignor to said Cook. Spring-mounted tractor attachment. No. 1,417,799; May 30.
Cook, Albert E., Evanston, and T. Van Tuyl, Kankakee, Ill.; said Van Tuyl assignor to said Cook. Oscillating axle mechanism. No. 1,417,800; May 30.
Cook, Edith A., Glenomaru, Otago, New Zealand. Cow milker. No. 1,417,801; May 30.
Coombes, William, Hyson Green, Nottingham, England. Twist-lace machine. No. 1,418,130; May 30.
Copley, Charles H., Springfield, Mo., assignor of one-half to C. N. Nichols, New York, N. Y. Electric trolley car. No. 1,417,502; May 30.
Corcoran, Thos. J., Lamp Company, The. (See Kuen, Eugene A., assignor.)
Cosper, Fred B., Seattle, Wash. Automobile bed. No. 1,417,802; May 30.
Cotton, Arthur F. R., London, England. Diaphragm. No. 1,417,718; May 30.
Covington, John W., Salt Lake City, Utah. Convertible day coach and sleeper. No. 1,417,719; May 30.
Cox, Walter, and A. Shuman, assignors to Pennsylvania Wire Glass Company, Philadelphia, Pa. Making corrugated wire glass. No. 1,418,236; May 30.
Cramer, Otto P., Geneva, Switzerland. Gas and air regulating device for incandescent-mantle burners. No. 1,418,237; May 30.
Cramer, Stanley S., Camden, N. J. Pneumatic power generator. No. 1,418,238; May 30.
Crane, Frederick D., assignor of one-half to N. L. Foster, Montclair, N. J. Receptacle closure. No. 1,417,975; May 30.
Cranston, Albert E., Spokane, Wash. Mechanical movement. No. 1,417,503; May 30.
Crespi, Silvio B., Milan, Italy. Weaving process and loom therefor. No. 1,418,239; May 30.
Crown Cork and Seal Company of Baltimore City, The. (See Lloyd, Frank L., assignor.)
Crown Ventilator Company, The. (See Merrill, Robert T., assignor.)
Curie, Maurice, and M. E. Varinois, Paris, France. Apparatus for the production of luminous images and the like. No. 1,418,240; May 30.
Curry, Malcolm, Scarsdale, N. Y., and S. H. Barnum, Hamden, Conn. Observation window for furnaces. No. 1,417,976; May 30.
Curtiss Aeroplane and Motor Corporation. (See Curtiss, Glenn H., assignor.)
Curtiss, Glenn H., Garden City, assignor, by mesne assignments, to Curtiss Aeroplane and Motor Corporation, Buffalo, N. Y. Motive-power system for aircraft. No. 1,418,131; May 30.
Cutler-Hammer Mfg. Co., The. (See Klein, Charles J., assignor.)
Da Cruz, Julio L. V., Newcastle-upon-Tyne, England. Magnetometer for measuring weak magnetic fields. No. 1,417,803; May 30.
Dalrymple, William P., assignor to Chicago Steel Wheel Co., Chicago, Ill. Wheel. No. 1,418,069; May 30.
Damm, Carl P., et al., trustees. (See Warren, J. R., and Brechting, assignors.)
Daniels, Homer H., Oswego, Kans. Shutter lift. No. 1,417,595; May 30.
Davies, David P., assignor to J. I. Case Threshing Machine Company, Racine, Wis. Internal-combustion engine. No. 1,417,804; May 30.
Davies, Ifor L., Blackheath, England. Tire pump. No. 1,417,805; May 30.
Davis, G. H. (See Belcher, Mark, assignor.)
Davis, James L., Richmond, Va. Check or account book. No. 1,417,977; May 30.
Dayton Steel Foundry Company, The. (See Leoni, Alfonso M., assignor.) (Reissue.)
Dean, Harry H. (See Staples, E. C., and Dean.)
Dearing, Major E., Salt Lake City, Utah. Heat retainer for water heaters. No. 1,417,888; May 30.
Deere & Company. (See Brown, Theophilus, assignor.)
De Forest, Lee, New York, N. Y. Radiosignaling system. No. 1,417,662; May 30.
De Lape, David E., Los Angeles, Calif. Treating fibrous materials. No. 1,417,889; May 30.
De Lapotterie, Otto H., Kent, Ohio, assignor to Townsend Company, New Brighton, Pa. Method and apparatus for forming headed articles. No. 1,417,806; May 30.
Delune, Marcel, assignor to Société D'Exploitation Des Brevets Dupuis, Paris, France. Cinema and analogous projection apparatus. No. 1,417,807; May 30.
Denne, Mark T., Rushden, England. Needle-guide-controlling means for sewing machines. No. 1,417,978; May 30.
Dermatological Research Laboratories. (See Schamberg, J. F., and Raiziss, assignors.)
Desjardins, John J., Marinette, Wis. Attachment for radiators. No. 1,417,504; May 30.
Devine, John J., Middletown, Conn. Writing-lighting device. No. 1,418,132; May 30.
Devore, Andrew, New York, N. Y. Indestructible gold-leaf character and preparing the same. No. 1,417,596; May 30.
Dewey, Charles J., Chicago, Ill. By-pass valve. No. 1,417,808; May 30.
Diamond, Harry H., et al. (See Huff, George R., assignor.)
Diehl, Irvin W., Duluth, Minn. Stair-rod fastener. No. 1,418,133; May 30.
Dinesen, Laurits, assignor, by mesne assignments, to Perfection Manufacturing Company, Minneapolis, Minn. Milking apparatus. No. 1,417,505; May 30.
Dixon, Thomas J., Madison, Wis., assignor to Lovejoy Tool Works, Chicago, Ill. Multiple-tube expander. No. 1,417,979; May 30.
Dixon, Thomas J., Madison, Wis., assignor to Lovejoy Tool Works, Chicago, Ill. Multiple expander. No. 1,417,980; May 30.
Dobson, William A., Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y. Typewriting machine. No. 1,418,241; May 30.
Domestic Electric Company, The. (See Mace, Arthur T., assignor.)
Doonan, William D., Butte, Mont. Tool for bending springs. No. 1,417,890; May 30.
Dorsey, Sherman H., assignor to Traffic Motor Truck Corporation, St. Louis, Mo. Automobile lock. No. 1,417,661; May 30.
Douglass, Roy D., Minneapolis, Minn. Traffic signal. No. 1,417,809; May 30.
Dow Wire & Iron Works. (See Logan, Robert S., assignor.)
Draper Corporation. (See Rhoades, Alonzo E., assignors.)
Draver, Emil R., Richmond, Ind. Wheel carrier. No. 1,418,134; May 30.
Dreaper, William P., London, England. Manufacture of viscose solutions. No. 1,418,135; May 30.
Dreaper, William P., London, England. Manufacture of artificial threads or filaments. No. 1,418,136; May 30.
Dressel Collapsible Rim Manufacturing Company, The. (See Dressel, Warren E.) (Reissue.)
Dressel, Warren E., deceased, Edwardsville, Ill., by The Dressel Collapsible Rim Manufacturing Company, St. Louis, Mo., assignee. Collapsible rim for pneumatic tires. (Reissue.) No. 15,366; May 30.
Druse, Warren D., Kahoka, Mo. Mold. No. 1,418,137; May 30.
Dudley, Benjamin B., Visalia, Calif. Folding camp table. No. 1,417,891; May 30.
Duffy, Thomas I., assignor to N. Gross, Chicago, Ill. Disk-wheel rim. No. 1,417,506; May 30.
Dunham, George W., Detroit, Mich., assignor to Graham Brothers, Evansville, Ind. Unit construction for tractors. No. 1,417,720; May 30.
Dun Lany, William P., assignor to Sears, Roebuck and Co., Chicago, Ill. Doll. No. 1,417,810; May 30.
Durot, Albert. (See Norton, D. G., and Durot.)
Duval, Azade. (See Martin, Evariste, assignor.)
Duvall, George W., and N. H. Beebe, assignors to Modern Broom Machinery Company, Davenport, Iowa. Broom trimmer. No. 1,418,138; May 30.
Eaton, George M., Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company. Resilient driving connection. No. 1,417,721; May 30.
Ehrenfeld, Ralph, and H. G. Caldwell, Wilkinsburg, Pa., assignors to Westinghouse Electric & Manufacturing Company. Mounting for sewing-machine motors. No. 1,417,722; May 30.
Ehrentraut, Charles F., Pittsburgh, Pa. Outage gauge. No. 1,417,892; May 30.
Ehresmann, Adam, et al. (See Streibel, Ludwig, assignor.)
Eidlitz, Charles L., New York, N. Y., assignor to Metropolitan Electric Manufacturing Company. Safety switch and fuse box. No. 1,417,723; May 30.
Eiken, Hjalmar F., Skorping, Denmark. Appliance for regulating the hardness of Röntgen-ray tubes. No. 1,418,139; May 30.
Elliott, Edward R., assignor to L. Free, San Francisco, Calif. Toothbrush. No. 1,417,811; May 30.
Ellis, Carleton, Montclair, N. J. Edible product and making same. No. 1,417,893; May 30.
Elmore, Guy H., Swarthmore, Pa. Centrifugal pump. No. 1,417,812; May 30.
Emmert, Gus. (See Tischer, Edward R., assignor.)
Enard, Hans, Pittsburgh, Pa. Power transmission and mechanism therefor. No. 1,417,894; May 30.
Engineering Works, The. (See Kirchman, William, assignor.)
Englund, Gustaf A., assignor to The Jacobs Manufacturing Company, Hartford, Conn. Chuck. No. 1,417,981; May 30.
Enterprise Railway Equipment Company. (See Campbell, Argyle, assignor.)
Evans, Powell, assignor to Globe Automatic Sprinkler Company, Philadelphia, Pa. Differential dry-pipe valve. No. 1,418,140; May 30.
Ewing, George W., Cincinnati, Ohio. Traffic signal. No. 1,418,141; May 30.

Excelsior Steel Furnace Company, The. (See Scherer, Albert G., assignor.)
Fahrenwald, Arthur W., Moscow, Idaho. Flotation apparatus. No. 1,417,895; May 30.
Fairbanks, Morse & Co. (See Peter, Alfred, assignor.)
Fairclough, William, Wigan, England. Mud or splash guard for vehicles. No. 1,417,813; May 30.
Fairmount Tool and Forging Company, The. (See Bartenstein, John J., assignor.)
Fairweather, Nelson H., Everett, assignor to Gillette Safety Razor Company, Boston, Mass. Display case for small articles. No. 1,417,814; May 30.
Farbwerke Vorm. Meister Lucius & Brüning. (See Wilke, Karl, assignor.)
Farmer, Sir James, & Sons Limited. (See Norton, D. G., and Durot, assignors.)
Federal Cement Tile Company. (See Baumgartl, Leroy, assignor.)
Federal Cement Tile Company. (See Geyer, George, as signor.)
Fenaes, Alfred R., and W. H. Kennedy, Houston, Tex. Lubricating-oil dispenser. No. 1,418,142; May 30.
Ferrier, Peter H., Jr., Chicago, Ill. Door bolt. No. 1,418,143; May 30.
Fetters, Charles A., Washington, D. C. Reversible sign. No. 1,418,144; May 30.
Fibre Container Company. (See Walter, Harrison B., assignor.)
Fieldman, Samuel, New York, N. Y. Cheese mold. No. 1,418,242; May 30.
Firestone Tire and Rubber Company, The. (See Putt, Edward D., assignor.)
Fischer, Johann, Augsburg, Germany. Sheet-feeding device for high-speed printing presses. No. 1,418,145; May 30.
Fischer, Max W., assignor to Gillen-Cole Co., Incorporated. Portland, Oreg. Self-closing latch. No. 1,417,815; May 30.
Fisher, Peter N. (See Oda, Cinco S., assignor.)
Fisk Rubber Company, The. (See Midgley, Thomas, assignor.)
Fitch, Ezra C., Manchester, assignor to Waltham Watch Company, Waltham, Mass. Strap connector. No. 1,417,507; May 30.
Fitzpatrick, George J., Chicago, Ill. Beater. No. 1,417,982; May 30.
Fletcher Electro Salvage Company, Limited, The. (See Fletcher, Robert J., assignor.)
Fletcher, Robert J., assignor to The Fletcher Electro Salvage Company, Limited, London, England. Electrodeposition of metals upon iron and alloys of iron. No. 1,417,896; May 30.
Flood, William, assignor of one-half to R. Vickers, Detroit, Mich. Sectional rim for pneumatic tires. No. 1,417,724; May 30.
Flostik Company. (See MacDonald, Frederick L., assignor.)
Flynn, Alfred L. (See Geiger, Charles M., assignor.)
Fogle, Earl C., Elkton, assignor of one-third to E. C. Martz and one-third to J. W. Morrison, Harrisonburg, Va. Bottle filling and capping machine. No. 1,418,146; May 30.
Foote, Edward H., Somerville, assignor to Standard Envelope Sealer Manufacturing Company, Everett, Mass. Envelope-sealing device. No. 1,417,897; May 30.
Foote, Thomas W., Cleveland, Ohio. Chair base. No. 1,417,816; May 30.
Ford, Charles M. (See Mitchell, Frederick, assignor.)
Forde, Gerald, New York, N. Y. Folding baby carriage. No. 1,418,243; May 30.
Forrest, John H. (See Forrest, Mattie D., assignor.)
Forrest, Mattie D., assignor of one-half to J. H. Forrest, Marion, Ind. Hook and eye. No. 1,418,244; May 30.
Foster, Nathaniel L. (See Crane, Frederick D., assignor.)
Foster, Robert T., Seattle, Wash. Starting device for aeroplane engines. No. 1,417,508; May 30.
Fouché, Edmond, Paris, France. Blowpipe. No. 1,418,245; May 30.
Frank, Beecher, Cleveland, Ohio. Tire holder. No. 1,417,817; May 30.
Frazer, Joseph C. W., Baltimore, Md., A. B. Lamb, Washington, D. C., and D. R. Merrill, Newark, N. J. Treating gases. No. 1,418,246; May 30.
Fredericks, Enoch M., assignor to Joy Tooth Company, Chicago, Ill. Artificial tooth crown and securing means therefor. No. 1,418,070; May 30.
Free, Leonard. (See Elliott, Edward R., assignor.)
Freebe, Benjamin F., assignor of one-half to J. Matta, Brownsville, Pa. Phonographic warning device. No. 1,417,983; May 30.
French, James C., assignor to F. C. Austin, Chicago, Ill. Portable mixing plant. No. 1,417,663; May 30.
French, Sherman T., assignor of one-half to M. D. Wade Indianapolis, Ind. Combined joint and hinge. No 1,417,984; May 30.
Fresses Patent Eisenschutz und Schraubenwellenbekleidung fur Schiffe G. m. b. H. (See Reck, Eugen, assignor.)
Freysz, Charles, et al. (See Pfeiffer, Stephan, assignor.)
Froehlich, David, Brooklyn, N. Y. Awning box. No. 1,418,247; May 30.
Frost, William K., Hollywood, Calif. Nail. No. 1,417,818; May 30.
Fuetter, Albert J., Cleveland, Ohio. Fuel-oil burner. No. 1,417,819; May 30.
Fulcher, Joseph T., Guntersville, Ala. Combined aeroplane and helicopter. No. 1,418,248; May 30.
Fullenwider, George R., assignor of one-half to O. Olson, Maple Valley, Wash. Tool kit. No. 1,417,725; May 30.
Gailor, Chester F., Brooklyn, N. Y. Welded joint. No. 1,418,071; May 30.
Gallien, Paul A., Shattuck, Okla. Paper-feeding device. No. 1,417,597; May 30.
Gammeter, John R., Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y. Vulcanizing mold for tire casings. No. 1,417,509; May 30.
Gardenhour, Allen J., Waynesboro, Pa. Combination electric switch. No. 1,417,898; May 30.
Garlinghouse, Leslie H., Aspinwall, Pa., assignor to Blaw-Knox Company. Panel. No. 1,417,664; May 30.
Garrison, Forest L. (See McNiece, Thomas B., assignor.)
Gas Research Company, The. (See Smith, Harry F., assignor.)
Gaskell, Joseph. (See Pilkington, A. C., and Gaskell.)
Gauger, Frank A., and R. W. Johnson, Milwaukee, Wis. Flash igniter. No. 1,417,510; May 30.
Gaunt, Thomas T., et al. (See Smith, John E., assignor.)
Gay, Albert H., London, England. Sound box for talking machines. No. 1,418,249; May 30.
Geer, Benjamin D., assignor to Lewis-Geer Mfg. Company, Ypsilanti, Mich. Spring support for vehicles. No. 1,417,511; May 30.
Geiger, Charles M., assignor of one-half to A. L. Flynn, New York, N. Y. Motor-driven handsaw. No. 1,417,726; May 30.
Geiger, Mary E., Waukesha, Wis. Shortening mixer. No. 1,417,985; May 30.
Genung, George J., Beaver Falls, and W. L. Welsh, New Brighton, Pa. Sand toy. No. 1,417,512; May 30.
George, Enoch, Jr., assignor to The McConway & Torley Company, Pittsburgh, Pa. Coupling operating mechanism. No. 1,417,598; May 30.
George, Harry C., Morris Township, Morris County, N. J., assignor to Arrowsmith Manufacturing Company, Morristown, N. J. Adjustable insole. No. 1,418,250; May 30.
Gerau, George B., Miami, Fla. Internal-combustion engine. No. 1,417,727; May 30.
Geyer, George, Hammond, Ind., assignor to Federal Cement Tile Company, Chicago, Ill. Roof structure. No. 1,417,513; May 30.
Giesler, Franklin B., Milwaukee, Wis. Automatic stroke-regulating device. No. 1,417,986; May 30.
Gilbert, Lewis R. (See Stunz, W. P., and Gilbert.)
Gilbertson, Oliver G., Osage, Iowa. Rein holder. No. 1,418,147; May 30.
Gill, John R., Birmingham, Ala. Guy derrick. No. 1,417,728; May 30.
Gillard, Albert H. (See Atwood, Leonard, assignor.)
Gillen-Cole Co. (See Fischer, Max W., assignor.)
Gillette Safety Razor Company. (See Fairweather, Nelson H., assignor.)
Gillies, George J. (See Woehr, Frederick A., assignor.)
Ginsburg, Samuel J., Denver, Colo. Phonograph attachment. No. 1,418,251; May 30.
Glahn, Dr. Kurt. (See Mehn, Herrmann, assignor.)
Glaser, Hugo, St. Paul, Minn. Piston. No. 1,417,514; May 30.
Glass, John E., Marion, Ky. Mail-exchange device. No. 1,418,252; May 30.
Glassmann, Arthur E. (See Bartha, J., and Glassmann.)
Glassmann-Bartha Welding Corp. (See Bartha, J., and Glassmann, assignors.)
Gleockler, Harry C., Schuylkill Haven, Pa. Metal-etching compound. No. 1,418,253; May 30.
Globe Automatic Sprinkler Company. (See Evans, Powell, assignor.)
Goodman, Vyvian E., Finsbury, London, assignor of two-thirds to Waterlow and Sons, Limited, London, England. Means for rendering the alteration of documents capable of detection. No. 1,417,820; May 30.
Goodrich, B. F., Company, The. (See Gammeter, John R., assignor.)
Gorr, Walter, New York, N. Y. Cloth drill. No. 1,417,665; May 30.
Grace, John F., Kearny, N. J., assignor to Worthington Pump and Machinery Corporation, New York, N. Y. Condenser system. No. 1,417,515; May 30.
Grady, Robert F., St. Louis, Mo. Mold and method for forming monoliths. No. 1,417,599; May 30.
Graham, Andrew W., assignor to City Trust Co. Branch of the Marine Trust Co. of Buffalo, trustee, Buffalo, N. Y. Match packet or carton. No. 1,417,729; May 30.
Graham Brothers. (See Dunham, George W., assignor.)
Graham Paper Company. (See Kniep, William H., assignor.)
Grant, Robert, and J. S. R. Rigby, Vancouver, British Columbia, Canada. Transmission mechinism. No. 1,418,254; May 30.
Grasberger, Lawrence B, Richmond, Va. Tobacco press. No. 1,417,899; May 30.
Grasselli Chemical Company, The. (See Toepfer, Hans, assignor.)
Gray, James A., San Francisco, Calif. Fruit-cutting apparatus. No. 1,417,666; May 30.
Green, Arch B., assignor of one-half to U. G. Walker, San Francisco, Calif. Combination carbonator and dispensing barrel. No. 1,418,072; May 30.
Green, Walter H., assignor to International Filter Co., Chicago, Ill. Settling tank. No. 1,417,516; May 30.

Green, Walter H., Dardanelle, Ark. Automobile wheel attachment. No. 1,417,821; May 30.
Greenlee, Harry A., Pawhuska, Okla. Reamer. No. 1,418,255; May 30.
Grew, Walter F., Coventry, England, assignor to Thermoid Rubber Company, Trenton, N. J. Coupling for connecting side cars to motor cycles. No. 1,417,822; May 30.
Griffith, Dan, Tacoma, Wash. Heating device. No. 1,417,987; May 30.
Grochal, Floryan, Easthampton, and J. Otreba, Amherst, Mass. Repair outfit for shoemakers. No. 1,417,900; May 30.
Gross, Nels. (See Duffy, Thomas I., assignor.)
Guedel, Charles F., Indianapolis, assignor of one-half to Guedel Manufacturing Co., Inc., Portland, Ind. Smoker's pipe. No. 1,417,823; May 30.
Guedel Manufacturing Co. (See Guedel, Charles F., assignor.)
Gullborg, John S., Chicago, Ill., assignor, by mesne assignments, to The Rotary King Safety Razor Company, New York, N. Y. Safety razor. No. 1,417,988; May 30.
Gundermann, Philip H., Chicago Ill. Fuel valve. No. 1,418,073; May 30.
Gutman, Harry, Chicago, Ill. Wrench. No. 1,418,256; May 30.
Gutmann, Ludwig, St. Louis, Mo. Arch support. No. 1,417,600; May 30.
Gutmann, Ludwig, St. Louis, Mo. Foot support. No. 1,417,989; May 30.
Haack, Gustave, Madison, Wis. Outboard buoy for boats. No. 1,417,824; May 30.
Hackett, Bert G., assignor to Hackett Products Co., Providence, R. I. Handle extension. No. 1,417,990; May 30.
Hackett Products Co. (See Hackett, Bert G., assignor.)
Hainline, Theodore W., Portland, Oreg., assignor of one-half to R. S. Wittmeier, Denver, Colo. Gas engine. No. 1,417,736; May 30.
Hajek, Joseph, Follansbee, W. Va. Shoe. No. 1,417,517; May 30.
Halter, Emil S., Paterson, N. J. Dyeing machine. No. 1,417,825; May 30.
Hancock, William M. (See Kendall, Clarence, W. E. and O. M., and Hancock.)
Hanes, Tecumseh S. (See Bable, Edward M., assignor.)
Haniuk, Wasyl, assignor of forty one-hundredths to F. Andrusyszyn, Perth Amboy, N. J. Aeronaut's safety attachment. No. 1,417,991; May 30.
Hannah, Charles W. G., Portsmouth, Ohio. Sign. No. 1,417,519; May 30.
Hansen, Thorvald. (See Smith, R. S., and Hansen.)
Hanson, Stanley A., Barnesville, Ga. Undergarment. No. 1,417,992; May 30.
Harden, Ora D., assignor, by mesne assignments, of one-half to C. E. Summers, Chicago, Ill. Electrotyping-case polisher. No. 1,418,074; May 30.
Hardinge, Franklin, Chicago, Ill. Oil burner. No. 1,417,520; May 30.
Harivcau, Paul, Paris, France. Keying device for shafts. No. 1,417,826; May 30.
Harris, Claude W., Levenshulme, Manchester, England. Die head of screw-cutting machines. No. 1,417,601; May 30.
Harris, Harold I. (See Van Buskirk, Ernest K., assignor.)
Harris, Henry, London, England. Refining of lead. No. 1,418,148; May 30.
Harthan, John. (See Von Bichowsky, F., and Harthan.)
Haumann, George, Cleveland, Ohio, assignor, by mesne assignments, to The Urban Machine and Tool Company. Lathe. No. 1,417,521; May 30.
Hawley, Jess B., Evanston, assignor to American Seamless Container Company, Chicago, Ill. Fastening device for shipping-case covers. No. 1,417,827; May 30.
Hay, William G., Liverpool, England. Partition connection. No. 1,418,257; May 30.
Hayden, Winfield S., Palmyra, Mo. Steel spring tire. No. 1,418,258; May 30.
Hayhurst, Robert. (See Capellman, H. J., and Hayhurst.)
Hedberg, August P., Milford, Mass. Flying machine. No. 1,417,602; May 30.
Hedenskoog, Ernest, Muskegon, Mich. Ball rack. No. 1,418,075; May 30.
Hedstrom, Albert S., Oak Park, Ill. Hinge. No. 1,418,076; May 30.
Heeren, Walter F., Pittsburgh, Pa. Pressing mechanism for sign units. No. 1,417,993; May 30.
Heftler, Victor R., assignor to The Zenith Carburetor Company, Detroit, Mich. Air-inlet-control device for carburetors. No. 1,418,259; May 30.
Hellmund, Rudolf E., and H. G. Jungk, Swissvale, Pa., assignors to Westinghouse Electric & Manufacturing Company. System of speed control for induction motors. No. 1,417,735; May 30.
Hellmund, Rudolf E., Swissvale, Pa., assignor to Westinghouse Electric & Manufacturing Company. Means for and method of accelerating induction motors. No. 1,417,731; May 30.
Hellmund, Rudolf E., Swissvale, Pa., assignor to Westinghouse Electric & Manufacturing Company. Means for and method of accelerating induction motors. No. 1,417,732; May 30.
Hellmund, Rudolf E., Swissvale, Pa., assignor to Westinghouse Electric & Manufacturing Company. System of control. No. 1,417,733; May 30.
Hellmund, Rudolf E., Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company. System of control. No. 1,417,734; May 30.
Hembree, Guy L., Boise, Idaho. Agricultural tool. No. 1,417,901; May 30.
Henerlau, George C., Newark, N. J. Dental floss holder. No. 1,417,518; May 30.
Hershey Manufacturing Company. (See Hershey, Orville S., assignor.)
Hershey, Orville S., Denver, Colo., assignor to Hershey Manufacturing Company. Automobile lock. No. 1,417,603; May 30.
Hertel, William, St. Louis, Mo. Frame for motor-car curtains. No. 1,417,994; May 30.
Hess, Edward B., and L. C. Myers, Brooklyn, assignors to Royal Typewriter Company, Inc., New York, N. Y. Typewriting machine. No. 1,417,902; May 30.
Hess, Edward B., and L. C. Myers, Brooklyn, assignors to Royal Typewriter Company, Inc., New York, N. Y. Margin scale for typewriting machines. No. 1,417,903; May 30.
Hess, Edward B., and L. C. Myers, Brooklyn, assignors to Royal Typewriter Company, Inc., New York, N. Y. Typewriting machine. No. 1,417,904; May 30.
Hess, Edward B., and L. C. Myers, Brooklyn, assignors to Royal Typewriter Company, Inc., New York, N. Y. Back-space mechanism for typewriting machines. No. 1,417,905; May 30.
Hess, Edward B., and L. C. Myers, Brooklyn, assignors to Royal Typewriter Company, Inc., New York, N. Y. Line-lock mechanism and margin release mechanism for typewriting machines. No. 1,417,906; May 30.
Hess, Edward B., and L. C. Myers, Brooklyn, assignors to Royal Typewriter Company, Inc., New York, N. Y. Line-spacing mechanism for typewriting machines. No. 1,417,907; May 30.
Hess, Edward B., and L. C. Myers, Brooklyn, assignors to Royal Typewriter Company, Inc., New York, N. Y. Ribbon operating and guiding mechanism for typewriting machines. No. 1,417,908; May 30.
Hess, Edward B., and L. C. Myers, Brooklyn, assignors to Royal Typewriter Company, Inc., New York, N. Y. Ribbon guide for typewriting machines. No. 1,417,909; May 30.
Hess, Edward B., and L. C. Myers, Brooklyn, assignors to Royal Typewriter Company, Inc., New York, N. Y. Typewriting machine. No. 1,417,910; May 30.
Hess, Edward B., and L. C. Myers, Brooklyn, assignors to Royal Typewriter Company, Inc., New York, N. Y. Scale for typewriting machines. No. 1,417,911; May 30.
Hewitt, Peter C., Ringwood Manor, N. J. Vacuum electric apparatus. No. 1,417,912; May 30.
Heygate, Eva C., Tankerton, England. Movable bungalow. No. 1,417,736; May 30.
Heyland, Alexander, Brussels, Belgium. Apparatus for generating high-frequency electric currents. No. 1,417,913; May 30.
Hillard, Frederic W., Tottenville, N. Y. Typewriting machine. No. 1,417,737; May 30.
Hilton, Andrew, Byesville, Ohio. Screw-driver attachment. No. 1,417,995; May 30.
Himmelright, Raleigh J., assignor to American Arch Company, New York, N. Y. Locomotive furnace construction. No. 1,417,667; May 30.
Hineline, Edson S., Providence, assignor to Hineline Engineering Company, Pawtucket, R. I. Electrical stop motion for knitting machines. No. 1,417,914; May 30.
Hineline Engineering Company. (See Hineline, Edson S., assignor.)
Hingher, Joseph. (See Barwell, J. W., Ward, Nelson, Hingher, Booth, and Blows.)
Hirsch, Herman, Chicago, Ill. Educational device. No. 1,417,828; May 30.
Hofstad, Nels, Chicago, Ill., assignor to Johnson Service Company, Milwaukee, Wis. Apparatus for thermostatic control. No. 1,417,738; May 30.
Holbrook, David M., Portland, Oreg. Boiler for incubator heaters. No. 1,417,522; May 30.
Holden, Joseph B., Syracuse, assignor to Remington Typewriter Company, Ilion, N. Y. Typewriting machine. No. 1,418,077; May 30.
Holt Manufacturing Company, The. (See Turnbull, William, assignor.)
Hood, Claire C., Dore, N. Dak. Clod crusher. No. 1,418,260; May 30.
Hopkinson, Ernest, New York, N. Y. Method and apparatus for manufacturing tires. No. 1,417,739; May 30.
Hornsby, Addie H., Omaha, Nebr. Doll. No. 1,417,915; May 30.
Horton, Theodore A., New York, N. Y. Casting apparatus. No. 1,418,078; May 30.
House, Henry A., Bridgeport, Conn., assignor to Public Service Cup Co., Brooklyn, N. Y. Drinking vessel and making same. No. 1,417,916; May 30.
Householder, Charles L., Washington, D. C. Display stand for discharge certificates. No. 1,418,261; May 30.
Hovey, Otis E., New York, N. Y. Continuous girder turntable. No. 1,417,917; May 30.
Howarth, Mark, Padgate, Warrington, England. Manufacture of nails and the like. No. 1,418,186; May 30.
Howell, Albert S., assignor to Bell & Howell Company, Chicago, Ill. Motion-picture camera and tripod. No. 1,417,523; May 30.

Howell, Albert S., assignor to Bell and Howell Company, Chicago, Ill. Film-feeding mechanism for motion-picture cameras and the like. No. 1,417,524; May 30.
Howell, Albert S., assignor to Bell and Howell Company, Chicago, Ill. Actuating mechanism for motion-picture cameras and the like. No. 1,417,525; May 30.
Howell, Albert S., assignor to Bell and Howell Company, Chicago, Ill. Lens mount for cameras. No. 1,417,526; May 30.
Howell, Albert S., assignor to Bell & Howell Company, Chicago, Ill. Focusing device for camera lenses. No. 1,417,527; May 30.
Hubble, Joel W., Jacksonville, Ill. Tire-chain fastener. No. 1,418,149; May 30.
Hudgens, Monroe, Cookeville, Tenn. Hand-steered, wheeled, convertible cultivator and planter. No. 1,418,262; May 30.
Huff, George R., Sasakwa, Okla., assignor of one-fourth to H. H. Diamond and one-fourth to C. L. Orr, both of Holdenville, Okla. Steam cylinder. No. 1,418,079; May 30.
Hulfish, David S., Toronto, Ontario, Canada. Automatic telephone system. No. 1,418,187; May 30.
Hungerford, Warren H. (See Peters, F. M., and Hungerford.)
Hydraulic Pressed Steel Company, The. (See Irish, W. E., and Nowak, assignors.)
Incandescent Supply Company. (See Newland, Barnet, assignor.)
Indianapolis, Manufacturing Company. (See Nordyke, Addison H., assignor.)
Ingersoll-Rand Company. (See Parsons, Frederick W., assignor.)
Inman Manufacturing Company. (See Joslin, Frank M., assignor.)
International Filter Co. (See Green, Walter H., assignor.)
International Time Recording Company of New York. (See Bryce, James W., assignor.)
Irish, William E., and A. K. Nowak, assignor to The Hydraulic Pressed Steel Company, Cleveland, Ohio. Elevated carrier for handling frames and the like. No. 1,417,528; May 30.
Irwin, George H., Chicago, Ill. Shock-absorber mechanism. No. 1,417,918; May 30.
Ives, George W., Milwaukee, Oreg. Sled for donkey engines. No. 1,417,740; May 30.
Izzo, Salvatore, Rome, Italy, assignor to Rev. M. Priori, Indianapolis, Ind. Automatic lock. No. 1,417,529; May 30.
Jackson, Daniel D., Brooklyn, N. Y. Obtaining potassium from natural potassium compounds. No. 1,417,919; May 30.
Jackson, John, St. Louis, Mo. Combined belt link and key-ring holder. No. 1,417,996; May 30.
Jackson, Philip T., Toronto, Ontario, Canada. Humidifying attachment for radiators. No. 1,418,150; May 30.
Jacobs, Joseph H., Miles City, Mont. Boot or shoe. No. 1,418,188; May 30.
Jacobs Manufacturing Company, The. (See Englund, Gustaf A., assignor.)
Jamison, Robert W., Mitchell, S. Dak. Compound walking beam for well-drilling rigs. No. 1,417,604; May 30.
Jefferies-Norton Corporation. (See Norton, Fred E., assignor.)
Jelenko, J. F., & Co. (See Aderer, Hugo, assignor.)
Jennings, William A., Raytown, Mo. Suspension thrust-resisting attachment for presses. No. 1,417,997; May 30.
Jessen, John A., Winthrop, assignor to The Palmer Electric & Manufacturing Company, Boston, Mass. Service switch. No. 1,417,920; May 30.
Johansen, Harry C., Chicago, Ill., assignor to Sullivan Machinery Company. Drill-feeding mechanism. No. 1,418,080; May 30.
Johanson, Georg K. V., Stockholm, Sweden. Gas meter. No. 1,417,998; May 30.
Johnson, Aron, Brooklyn, N. Y. Automatic feeder. No. 1,417,741; May 30.
Johnson, Charles E., et al., trustees. (See Warren, J. R., and Brechting, assignors.)
Johnson, Henry, Winston-Salem, N. C., assignor to The Southern Iron & Steel Corporation. Furnace. No. 1,417,829; May 30.
Johnson, Roy W. (See Gauger, F. A., and Johnson.)
Johnson Service Co. (See Hofstad, Nels, assignor.)
Johnston, Robert E., Congo, W. Va. Means for preventing oil-tank fires. No. 1417,605; May 30.
Joslin, Frank M., assignor to Inman Manufacturing Company, Inc., Amsterdam, N. Y. Cutting machine. No. 1,417,830; May 30.
Jourdan, Félix, Rome, Italy. Obtaining in soluble state some of the constituents of complex rocks. No. 1,417,831; May 30.
Joy Tooth Company. (See Fredericks, Enoch M., assignor.)
Jungk, Herbert G. (See Hellmund, R. E., and Jungk.)
Junoform Company, The. (See Smith, Goodwin B., assignor.)
Kauri Timber Company, Limited, The. (See Butler, Joseph, assignor.)
Keller, James D., Detroit, Mich. Knee boot. No. 1,417,742; May 30.
Kelly, Geo. J., Inc. (See Matter, Albert J., assignor.)
Kelso, William, assignor to The McConway & Torley Company, Pittsburgh, Pa. Uncoupling mechanism. No. 1,417,606; May 30.
Kemper, William H., Montgomery, Ala. Agricultural machine. No. 1,417,999; May 30.
Kempton, Willard H., Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company. Process and apparatus for forming laminated rods and tubes. No. 1,417,743; May 30.
Kendall, Clarence, W. E., and O. M., and W. M. Hancock, Houston, Tex. Visible indicating system for oil and displaying dispensing systems. No. 1,417,530; May 30.
Kendall, Odin M. (See Kendall, Clarence, W. E., and O. M., and Hancock.)
Kendall, William E. (See Kendall, Clarence, W. E., and O. M., and Hancock.)
Kennedy, G. M., et al. (See Kennedy, Homer R., assignor.)
Kennedy, Homer R., assignor of one-half to G. M. Kennedy and one-half to J. J. Mathe, Los Angeles, Calif. Holder for grease guns. No. 1,418,263; May 30.
Kennedy, Lawrence H., Dayton, Ohio. Pendulum ball for automatic scales. No. 1,417,833; May 30.
Kennedy, William H. (See Fenaes, A. R., and Kennedy.)
Kent, Arthur A., Ardmore, Pa. Vehicle seat. No. 1,417,744; May 30.
Kenworthy, James A., Los Angeles, Calif. Gas generator and burner. No. 1,417,745; May 30.
Kern, Franklin S., Libertyville, Ill. Headlight. No. 1,417,607; May 30.
Kern, Frederick E., St. Louis, Mo. Shaping and ironing tool. No. 1,417,668; May 30.
Kesses, Charles, New York, N. Y. Photoprinting machine. No. 1,417,832; May 30.
Key, William H. (See Manny, F. L., and Key.)
Kimball, John A., Taylorville, Ill. Scraping tool. No. 1,418,189; May 30.
Kirchman, William, assignor to The Engineering Works, Van Buren, Ark. Mining car. No. 1,417,834; May 30.
Kirkpatrick, Maurice G. (See Yelm, Charles W., assignor.)
Kirkwood, William H., Kittanning, Pa. Rail connector. No. 1,417,531; May 30.
Kirschbraun, Lester, Evanston, Ill. Making emulsion. No. 1,417,835; May 30.
Kirschbraun, Lester, Chicago, Ill. Waterproof board and making same. No. 1,417,836; May 30.
Kirschbraun, Lester, Evanston, Ill. Making waterproof composition. No. 1,417,837; May 30.
Kirschbraun, Lester, Evanston, Ill. Colored bituminous composition and making same. No. 1,417,838; May 30.
Kirschbraun, Lester, Evanston, Ill. Waterproof product. No. 1,417,839; May 30.
Kirschbraun, Lester, Evanston, Ill. Treating saturated fibrous compositions. No. 1,417,840; May 30.
Kirschbraun, Lester, Chicago, Ill. Saturating felt. No. 1,417,841; May 30.
Kishpaugh, Hampton C., Amandale, Minn. Composition for paint. No. 1,417,842; May 30.
Kitchingman, Ray S., Racine, Wis. Wardrobe hanger. No. 1,417,921; May 30.
Kleckner, Arthur C., assignor to Webster Electric Company, Racine, Wis. Magneto. No. 1,417,746; May 30.
Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric candle and the like. No. 1,417,532; May 30.
Klemm, Edwin O., Dayton, Ohio, assignor to Klemm Manufacturing Company, Fenton, Mich. Control mechanism for graphophones. No. 1,417,748; May 30.
Klemm, Edwin O., Dayton, Ohio, assignor to Klemm Manufacturing Company, Saginaw, Mich. Control means for graphophones. No. 1,417,747; May 30.
Klemm Manufacturing Company. (See Klemm, Edwin O., assignor.)
Klingel, Edward L., St. Paul, Minn. Telegraph apparatus. No. 1,418,000; May 30.
Knapp, Walter C., assignor to Liberty Bread Slicer Inc., Rochester, N. Y. Slicing machine. No. 1,417,843; May 30.
Knapp, Walter C., assignor to Liberty Bread Slicer Inc., Rochester, N. Y. Slicing machine. No. 1,417,844; May 30.
Kniep, William H., assignor to Graham Paper Company, St. Louis, Mo. Shopper's bag. No. 1,418,001; May 30.
Knoblock, James W., New York, assignor to American La France Fire Engine Company, Inc., Elmira, N. Y. Handle for lanterns. No. 1,417,608; May 30.
Koch, Norbert, Essen-Rellinghausen, Germany, assignor, by mesne assignments, to The Alien Property Custodian. Device for adjusting the recoil length of fluid brakes for gun carriages. No. 1,417,922; May 30.
Koch, Norbert, Essen-Rellinghausen, Germany, assignor, by mesne assignments, to The Alien Property Custodian. Axle spade for mobile artillery. No. 1,417,923; May 30.
Koerner, Ewald, Dresden, Germany, assignor to United Cigarette Machine Co., Inc., Lynchburg, Va. Machine for applying mouthpiece-forming sheets to cigarette-paper strips. No. 1,417,609; May 30.
Koller, Charles, et al. (See Pfeiffer, Stephan, assignor.)
Koon, Raymond, et al. (See Liuni, Salvatore, assignor.)
Koppe, Alexander T., assignor to Offset Directoplate Company, Chicago, Ill. Negative-registering device. No. 1,417,749; May 30.

Koronski, André, Narberth, Pa. Computing machine. No. 1,417,924; May 30.
Kothny, Gottdank L. E., Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company. Refrigerating machine. No. 1,418,002; May 30.
Krannert, Victor L., Urbana, Ill., assignor to Saf-Pak Manufacturing Company, Anderson, Ind. Shipping case. No. 1,417,533; May 30.
Kruse, Ferdinand, Port Richmond, N. Y. Meat press and filler. No. 1,417,610; May 30.
Kuen, Eugene A., assignor to The Thos. J. Corcoran Lamp Company, Cincinnati, Ohio. Electric switch. No. 1,417,925; May 30.
Ladd, James B., Ardmore, Pa. Method and means for brick hacking. No. 1,418,003; May 30.
La Fayette Motors Company. (See Lowe, John D., assignor.)
Laise, Clemens A., Weehawken, N. J. Alloy and preparation of the same for contact bodies and ignition points. No. 1,418,081; May 30.
Lamb, Arthur B. (See Frazer, Lamb, and Merrill.)
Lamb, Arthur B., Washington, D. C. Antidimmer for respirators and the like. No. 1,418,264; May 30.
Lammers, Edwin S., Jr., Elyria, Ohio., assignor to Westinghouse Electric & Manufacturing Company. Motor-control system. No. 1,417,750; May 30.
Landis, Irwin D., assignor to Universal Conveyor Co., South Bend, Ind. Chute-gate-operating mechanism. No. 1,417,611; May 30.
Langley, John W., et al. (See Barton, Charles N., assignor.)
Langworthy, Mitchell, Spokane, Wash. Surgical saw. No. 1,417,669; May 30.
Larsen, Ludvig, Chicago, Ill. Snap switch. No. 1,417,751; May 30.
Larson, John W., Escanaba, Mich. Bucket-loading hook. No. 1,418,004; May 30.
Laskowitz, Isidor B., New York, N. Y. Automatic safety gas shut-off. No. 1,418,082; May 30.
Latimore, John, Utica, N. Y. Garment pattern. No. 1,417,612; May 30.
Layman, Hebron B., assignor to The Layman Pressed Rod Company, Inc., New York, N. Y. Connecting rod. No. 1,418,083; May 30.
Layman, Hebron B., assignor to The Layman Pressed Rod Company, Inc., New York, N. Y. Connecting rod. No. 1,418,084; May 30.
Layman, Hebron B., assignor to The Layman Pressed Rod Company, Inc., New York, N. Y. Connecting rod. No. 1,418,085; May 30.
Layman, Hebron B., assignor to The Layman Pressed Rod Company, Inc., New York, N. Y. Connecting rod. No. 1,418,086; May 30.
Layman, Hebron B., assignor to The Layman Pressed Rod Company, Inc., New York, N. Y. Manufacturing sheet-metal connecting rods. No. 1,418,087; May 30.
Layman Pressed Rod Company, The. (See Layman, Hebron B., assignor.)
Leesekamp, Andrew, Anamosa, Iowa. Cask cover. No. 1,417,845; May 30.
Le Fever, Joseph J., Newport, Idaho. Front sight for rifles and revolvers. No. 1,417,670; May 30.
Leo, Francis J., Buffalo, N. Y. Burial casket. No. 1,417,534; May 30.
Leoni, Alfonso M., Baltimore, Md., assignor, by mesne assignments, to The Dayton Steel Foundry Company, Dayton, Ohio. Truck wheel. (Reissue.) No. 15,367; May 30.
Lester, Charles A., Winona, Minn. Reflector for automobile headlights, etc. No. 1,417,926; May 30.
Leupold, Voelpel & Company. (See Stevens, John C., assignor.)
Levy, Henri G., San Francisco, Calif. Fluid mixer. No. 1,417,927; May 30.
Lewis, Evan J., Canonsburg, Pa. Hat hanger. No. 1,418,190; May 30.
Lewis-Geer Mfg. Company. (See Geer, Benjamin D., assignor.)
Liberty Bread Slicer Inc. (See Knapp, Walter C., assignor.)
Liddell, Moses V., Mattituck, N. Y., assignor to Austin Manufacturing Company, Chicago, Ill. Broom for sweepers. No. 1,418,088; May 30.
Liedabrand, Samuel E., Springfield, Ill. Trailer. No. 1,417,846; May 30.
Lightning Change Rim Corporation. (See Wilson, Edward F., assignor.)
Lincoln, Paul M., Pittsburgh, Pa. Electrical measuring instrument. No. 1,417,671; May 30.
Lindemann, Walter C., Milwaukee, Wis. Reservoir for oil stoves. No. 1,417,672; May 30.
Lindgren, John, Chicago, Ill. Method and means for wrapping hair nets. No. 1,417,752; May 30.
Lindig, Harry E., Sunbury, Pa. Toy electric railway. No. 1,418,151; May 30.
Lindquist, David L., Hartsdale, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Spring cable hitch. No. 1,418,089; May 30.
Lineaweaver, William C., Fort Sill, assignor of one-half to W. Swift, Lawton, Okla. Plotter. No. 1,417,753; May 30.
Lipscomb, MacDonald E., Sweet Springs, Mo. Floor polisher. No. 1,417,673; May 30.
Littlefield, Augustine F., Lynn, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J. Sole. No. 1,417,535; May 30.
Liuni, Salvatore, Philadelphia, assignor of one-third to R. Koon and one-third to D. Caimi, Philadelphia, Pa. Amusement device. No. 1,417,754; May 30.
Lloyd, Frank L., Baltimore, Md., assignor to The Crown Cork and Seal Company of Baltimore City. Packaging apparatus. No. 1,417,536; May 30.
Locke, Nathen A., Fulton, N. Y. Antirattling joint for steering gears. No. 1,418,005; May 30.
Loeven, Harry, Douglas, Ariz. Amalgamator. No. 1,418,006; May 30.
Logan, Robert S., assignor to Dow Wire & Iron Works, Louisville, Ky. Cast-metal end for conveyer rollers. No. 1,418,152; May 30.
Lome, Philip, Chicago, Ill. Pneumatic-tire protector. No. 1,417,755; May 30.
Long, John McA., Manchester, England. Means for making ice cream. No. 1,417,847; May 30.
López, Margil, Alice, Tex. Portable trench. No. 1,417,613; May 30.
Lorber, Charles, Louisville, Ky. Bread server. No. 1,418,153; May 30.
Lord, Chester B., Battle Creek, Mich. Indicating apparatus. No. 1,417,928; May 30.
Lovejoy Tool Works. (See Dixon, Thomas J., assignor.)
Lowe, John D., assignor to La Fayette Motors Company, Indianapolis, Ind. Antirattle device for steering devices. No. 1,417,674; May 30.
Lubliner, Benjamin. (See Berkowitz, Samuel, assignor.)
Lucy, Robert, Olga, N. Dak. Quack-grass digger. No. 1,417,537; May 30.
Lund, Charles W., Willows, Calif. Front truck for street-sweeping machines. No. 1,418,154; May 30.
Lustig, David, Paris, France. Motive-power appliance for sewing machines and the like. No. 1,418,007; May 30.
McAbee, Ernest T., Kansas City, Kans. Floor-joist construction form. No. 1,417,614; May 30.
McArthur, Clyde E. (See Schmidt, J. E., and McArthur.)
McCarty, William B., Jackson, Miss. Self-serving store. (Reissue.) No. 15,368; May 30.
McConway & Torley Company, The. (See George, Enoch, Jr., assignor.)
McConway & Torley Company, The. (See Kelso, William, assignor.)
McConway & Torley Company, The. (See Milliken, I. H., and Regan, assignors.)
McConway & Torley Company, The. (See Regan, William J.)
McConway & Torley Company, The. (See Reynolds, Thomas A., assignor.)
McDonald, Arthur, Vancouver, British Columbia, Canada. Wrench. No. 1,417,756; May 30.
McDonald, Thomas J., Knoxville, Tenn. High pressure boiler for traction use and other uses. No. 1,417,615; May 30.
McGarvey, Robert W., Sparrows Point, Md. Safety razor. No. 1,418,191; May 30.
McGill Ticket Punch Company. (See Beck, Albert, assignor.)
McGregor, Alexander G., Warren, Ariz. Converter plant. No. 1,417,538; May 30.
McGuire, Thomas T. (See Cary, H., and McGuire.)
McKallip, John C., Houston, Tex. Sealed joint for liquid receptacles. No. 1,418,155; May 30.
McKeown, John C., Chicago, Ill. Truss. No. 1,417,929; May 30.
McLaren, Alexander. (See McLaren, Walter, assignor.)
McLaren, Walter, Chicago, Ill., assignor to A. McLaren, Dayton, Ohio. Apparatus for manufacturing cup pastry. No. 1,417,757; May 30.
McLaughlin, Robert, assignor of one-half to A. G. Patton, Monmouth, Ill. Gate-hinge construction. No. 1,417,758; May 30.
McManis, John V., Kirksville, Mo. Treatment table. No. 1,417,675; May 30.
McMullen, Robert V., Eureka, Kans., assignor to The Midland Supply Company, Pawhuska, Okla. Fishing tool. No. 1,417,616; May 30.
McNeil, James W., Newark, N. J. Sheet-metal barrel. No. 1,417,617; May 30.
McNiece, Thomas B., Mansfield, assignor of one-half to F. L. Garrison, Cincinnati, Ohio. Fish stringer. No. 1,417,759; May 30.
McPherson, Elmer T., Wallingford, Conn. Auger bit. No. 1,417,760; May 30.
Maass, Otto, Montreal, Quebec, Canada. Separating aqueous and other vapors from fluids and solids and for preparing dilute sulphuric acid. No. 1,417,618; May 30.
MacDonald, Frederick L., assignor to Flostik Company, Waltham, Mass. Dental tool. No. 1,417,848; May 30.
Mace, Arthur T., East Cleveland, assignor to The Domestic Electric Company, Cleveland, Ohio. Sewing-machine motor drive. No. 1,417,676; May 30.
MacGregor, Robert M., Hartford, Conn. Punch press. No. 1,417,539; May 30.
Mackenzie, Fred L., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Work support. No. 1,417,540; May 30.
Mader, Joseph. (See Allen, C. J., and Mader.)
Maier, Oscar, et al. (See Streibel, Ludwig, assignor.)
Maiers, John, Philadelphia, Pa. Dustless ash sifter. No. 1,417,849; May 30.
Mailleue, Laura E., Vancouver, British Columbia, Canada. Surgical bust substitute. No. 1,417,930; May 30.

Male, Harold L., Brooklyn, N. Y. Holder for steel wool. No. 1,417,619; May 30.
Malm, Axel C. V., Landsdowne, Pa., assignor to American Engineering Corporation, New York, N. Y. Coating fountain and the like. No. 1,417,931; May 30.
Malott, Benjamin F., Greenville, S. C. Swing. No. 1,418,192; May 30.
Mann, Alexander R., Montreal, Quebec, Canada. Metal box. No. 1,417,932; May 30.
Manny, Fred L., and W. H. Key, Benton Harbor, Mich. Compression pump. No. 1,417,677; May 30.
Mansel, Paul, Charlottenburg, near Berlin, Germany, assignor to Siemens & Halske Aktiengesellschaft, Siemensstadt, near Berlin, Germany. Electric clock. No. 1,417,620; May 30.
Marler, Arthur W. (See Coley, A., and Marler.)
Marlow, Richard, Ralph, Ala. Plow. No. 1,418,156; May 30.
Marsh, Claude E., Atlanta, Ga. Portable locomotive-journal-turning machine. No. 1,417,621; May 30.
Marshall, Joseph B., assignor to Shilepsky and Marshall, Westport, Conn. Clothespin. No. 1,417,850; May 30.
Martin, Evariste, assignor of one-half to A. Duval, Manchester, N. H. Transferring mechanism for automatic filling-replenishing loom. No. 1,417,541; May 30.
Martin, James V., Elyria, Ohio. Aircraft structure. No. 1,418,008; May 30.
Martinez, José, Paris, France. Sparking plug for internal-combustion engines. No. 1,418,009; May 30.
Martoccio, Frank A., Minneapolis, Minn, Drier. No. 1,418,010; May 30.
Martz, Edward C., et al. (See Fogle, Earl C., assignor.)
Marx, Joseph J., St. Louis, Mo. Ironing machine. No. 1,417,622; May 30.
Maspons, Albert E., Philadelphia, Pa. Structure for operating upon cigar wrappings. No. 1,417,933; May 30.
Massie, Thomas K., Hatcher, W. Va. Beehive. No. 1,417,623; May 30.
Mathe, J. J., et al. (See Kennedy, Homer R., assignor.)
Matta, John. (See Freeble, Benjamin F., assignor.)
Matter, Albert J., Merrimac, assignor, by mesne assignments, to Geo. J. Kelly, Inc., Lynn, Mass. Covered box. No. 1,418,090; May 30.
Mauch, John L., Brooklyn, N. Y. Process and apparatus for casting hot liquid material. No. 1,417,542; May 30.
Mayhew, Jacob V., Pittsburgh, Pa. Rail tie. No. 1,417,851; May 30.
Measuregraph Company, The. (See Pedersen, Johannes T., assignor.)
Mehn, Hermann, Berlin-Tempelhof, assignor to Dr. K. Glahn, Berlin-Wilmersdorf, Germany. Electrical water heater. No. 1,418,011; May 30.
Meier, William, New York, N. Y. Pedal-control liquid mixer. No. 1,418,193; May 30.
Melnick, Polikarp, Camden, N. J. Windmill. No. 1,418,194; May 30.
Merrill, David R. (See Frazer, Lamb, and Merrill.)
Merrill, Robert T., assignor to The Crown Ventilator Company, Milwaukee, Wis. Ventilator and chimney cap. No. 1,417,761; May 30.
Merz, Jacob, Chicago, Ill. Spare-tire holder. No. 1,417,678; May 30.
Mettallbank und Metallurgische Gesel'schaft Aktiengesellschaft. (See Schopper, Walter, assignor.)
Meteor Mixing Machine Co. (See Trust, Josephine, and H., assignors.)
Metropolitan Electric Manufacturing Company. (See Eidlitz, Charles L., assignor.)
Metropolitan Electric Manufacturing Company. (See Winklehaus, Frederick O., assignor.)
Michigan Steel Tube Products Co. (See Berg, Richard O. and S., assignors.)
Mickelson, Alfred O., Chicago, Ill. Advertising device. No. 1,418,157; May 30.
Middleton, Ferris A., San Francisco, Calif. Automatic driver. No. 1,417,624; May 30.
Middleton, Guy N. (See Stuart, A. T., and Middleton.)
Midgley, Thomas, Hampden, assignor to The Fisk Rubber Company, Chicopee Falls, Mass. Vulcanizing equipment. No. 1,417,551; May 30.
Midland Supply Company, The. (See McMullen, Robert V.)
Miglietta, Riccardo, Meriden, Conn. Ice-cream-cone machine. No. 1,418,195; May 30.
Mikulasek, John, Newton, Iowa. Ironing machine. No. 1,417,625; May 30.
Miller, Flora E., Sparta, Ill. Heel protector for ladies' shoes. No. 1,417,934; May 30.
Millers Falls Company. (See Parsons, William J., assignor.)
Milliken, Isaac H., Aspinwall, and W. J. Regan, assignors to The McConway & Torley Company, Pittsburgh, Pa. Uncoupling mechanism. No. 1,417,543; May 30.
Milliken, Isaac H., Aspinwall, and W. J. Regan, assignors to The McConway & Torley Company, Pittsburgh, Pa. Uncoupling mechanism. No. 1,417,544; May 30.
Milliken, Isaac H., Aspinwall, and W. J. Regan, assignors to The McConway & Torley Company, Pittsburgh, Pa. Uncoupling mechanism. No. 1,417,545; May 30.
Milliken, Isaac H., Aspinwall, and W. J. Regan, assignors to The McConway & Torley Company, Pittsburgh, Pa. Uncoupling mechanism. No. 1,417,546; May 30.
Milliken, Isaac H., Aspinwall, and W. J. Regan, assignors to The McConway & Torley Company, Pittsburgh, Pa. Uncoupling mechanism. No. 1,417,547; May 30.
Milliken, Isaac H., Aspinwall, and W. J. Regan, assignors to The McConway & Torley Company, Pittsburgh, Pa. Uncoupling mechanism. No. 1,417,548; May 30.
Miner, Paul H., Brockton, Mass. Sign. No. 1,418,012; May 30.
Mitchell, Frederick, assignor of one-half to C. M. Ford, Brooklyn, N. Y. Theatrical lamp. No. 1,417,935; May 30.
Mochel, Louise A., Chicago, Ill. Copyholder. No. 1,417,762; May 30.
Modern Broom Machinery Company. (See Duvall, G. W., and Beebe, assignors.)
Modjeski, Ralph, Philadelphia, Pa. Reenforced bridge span. No. 1,417,936; May 30;
Moffett, Patrick F., Worcester, Mass. Instrument for teaching and perfecting penmanship. No. 1,418,196; May 30.
Moncure, Robinson, Alexandria, Va. Lock for demountable rims and tires. No. 1,417,549; May 30.
Moore, Samuel, Scunthorpe, England. Gas generator. No. 1,418,158; May 30.
Moore, William E., Milwaukee, Wis., assignor to R. D. Nuttall Company. Gear for railway motors. No. 1,417,937; May 30.
Morgan Crucible Company Limited, The. (See Speirs, Charles W., assignor.)
Morgan, Donald C., assignor to American Sanitary Lock Co., Indianapolis, Ind. Coin-controlled lock. No. 1,418,091; May 30.
Morrison, John W., et al. (See Fogle, Earl C., assignor.)
Morse, Williston L., Pawnee City, Nebr. Incubator egg tray. No. 1,417,550; May 30.
Morterud, Einar, Torderod, near Moss, Norway. Evaporating liquids. No. 1,418,197; May 30.
Mount, James J., Chicago, Ill. Dental flask. No. 1,417,938; May 30.
Muench, Carl G., St. Paul, Minn. Indented fiber board. No. 1,417,522; May 30.
Muench, Carl G., St. Paul, Minn. Concrete building construction. No. 1,417,553; May 30.
Mullen, Thomas F., Stafford Springs, Conn. Watch fob. No. 1,417,852; May 30.
Murphy, G. W. J., Company. (See Bourque, David, assignor.)
Musgrave, Ellen S., Amersham Common, England. Means for use in poaching eggs. No. 1,417,679; May 30.
Myers, Charles S., Hazleton, Pa. Window screen. No. 1,417,763; May 30.
Myers, Harry S., Van, Pa. Extension clutch control. No. 1,418,265; May 30.
Myers, Lewis C. (See Hess, E. B., and Myers.)
Nash, Charles A., Seattle, Wash. Injector for steam engines. No. 1,417,853; May 30.
National Boiler Washing Company. (See Otis, Spencer, assignor.)
Naugatuck Chemical Company, The. (See Cadwell, Sidney M., assignor.)
Nelson, Nicolay. (See Barwell, J. W., Ward, Nelson, Hingher, Booth, and Blows.)
Neppell, Harry N., New York, N. Y. Hat. No. 1,418,198; May 30.
Nesland, Gustave, Davenport, Iowa. Camp stool. No. 1,417,680; May 30.
Neumann, Math, St. Cloud, Minn., Automatic calf feeder. No. 1,417,554; May 30.
Newland, Barnet, New York, N. Y., assignor to Incandescent Supply Company. Holder for globes. No. 1,417,939; May 30.
Newman, Martin F., assignor to Wm. B. Scaife & Sons Company, Oakmont, Pa. Purifying and decolorizing water. No. 1,418,013; May 30.
Newton, James O., Denver, Colo. Securities sales outfit. No. 1,417,854; May 30.
Nichols, Clarence N. (See Copley, Charles H., assignor.)
Nichols, John H., Oilfields, Calif. Oil-well pump. No. 1,417,764; May 30.
Nolan, Peter J., Chester, Pa. Transom attachment. No. 1,417,626; May 30.
Nordyke, Addison H., assignor to Indianapolis Manufacturing Company, Indianapolis, Ind. Supporting means for strips of veneer and the like. No. 1,418,014; May 30.
North British Rubber Company, The. (See Porritt, Benjamin D., assignor.)
Norton, David G., and A. Durot, Manchester, England, assignors to Sir James Farmer & Sons Limited, Salford, Manchester, England. Cloth-piling machine. No. 1,418,199; May 30.
Norton, Fred E., assignor to Jefferies-Norton Corporation, Worcester, Mass. Refrigerating apparatus. No. 1,418,015; May 30.
Nowak, Alois K. (See Irish, W. E., and Nowak.)
Nuttall, R. D., Company. (See Moore, William E., assignor.)
Oda, Cinco S., assignor of one-half to P. N. Fisher, Boston, Mass. Belt buckle. No. 1,417,855; May 30.
Odell, James T., Birmingham, Ala. Cotton chopper. No. 1,418,159; May 30.
Offset Directoplate Company. (See Koppe, Alexander T., assignor.)
Olson, Olof. (See Fulenwider, George R., assignor.)
O'Neill, Eugene F., assignor to Beckwith-O'Neill Company, Minneapolis, Minn. Mounting for sound-reproducing machines. No. 1,418,016; May 30.
O'Neill, Eugene F., assignor to Beckwith-O'Neill Company, Minneapolis, Minn. Mounting for sound-reproducing machines. No. 1,418,017; May 30.

Orr, Charles L., et al. (See Huff, George R., assignor.)
Orr, Walker P., Diana, Tenn. Broom press. No. 1,418,018; May 30.
Orth, Henry G., Fulton, N. Y. Crate. No. 1,417,555; May 30.
Osborne, Blanche G., Corning, Iowa. Typewriter pad. No. 1,417,556; May 30.
Otis Elevator Company. (See Lindquist, David L., assignor.)
Otis, Spencer, assignor to National Boiler Washing Company, Chicago, Ill. Apparatus for washing out and refilling boilers. No. 1,418,092; May 30.
Otreba, John. (See Grochal, F., and Otreba.)
Overstrom, Gustave A., Pasadena, Calif. Concentrator. No. 1,417,681; May 30.
Overstrom, Gustave A., Pasadena, Calif. Ore-concentrating table. No. 1,417,682; May 30.
Palmer Electric & Manufacturing Company, The. (See Jessen, John A., assignor.)
Palmer Electric & Manufacturing Company, The. (See Palmer, Granville E., assignor.)
Palmer, Granville E., assignor to The Palmer Electric & Manufacturing Company, Boston, Mass. Service switch. No. 1,417,940; May 30.
Panik, Joseph, and S. Clebo, West Park, Ohio. Combination milk-bottle receptacle and mail box. No. 1,418,200; May 30.
Pappas, Peter, Kankakee, Ill. Closure. No. 1,418,201; May 30.
Parmater, Robert S., Elkhart, Ind. Golf-club carrier. No. 1,418,093; May 30.
Parshall, Ralph L., Fort Collins, Colo. Venturi-flume water-stage-recording instrument. No. 1,417,941; May 30.
Parsons Company, The. (See Vaughn, G. A., and Stahl, assignors.)
Parsons, Frederick W., Elmira, N. Y., assignor to Ingersoll-Rand Company, Jersey City, N. J. Vertical compressor unit. No. 1,418,202; May 30.
Parsons, William J., Montague, assignor to Millers Falls Company, Millers Falls, Mass. Telescopic wrench. No. 1,417,683; May 30.
Patee, Fred, Casper, Wyo. Building block. No. 1,418,160; May 30.
Patent Button Company, The. (See White, Franklin R., assignor.)
Patterson, William M., Greenville, S. C. Picker-stick check. No. 1,417,557; May 30.
Patton, A. G. (See McLaughlin, Robert, assignor.)
Pearson, Eric G., Elizabeth, N. J. Centrifugal separator. No. 1,417,558; May 30.
Pearson, Susan C., New York, N. Y. Bath brush. No. 1,418,019; May 30.
Pearsons, George T., New York, N. Y. Fire extinguisher. No. 1,417,559; May 30.
Pease, Fred F., East Braintree, Mass. Wrench. No. 1,418,161; May 30.
Pedersen, Johannes T., Flushing, N. Y., assignor, by mesne assignments, to The Measuregraph Company. Fabric-measuring chart and roller therefor. No. 1,418,162; May 30.
Peek, Will, et al. (See Barton, Charles N., assignor.)
Pendleton, William H., Washington, D. C. Antiskidding device. No. 1,417,560; May 30.
Pendray, Herbert J., Victoria, British Columbia, Canada. Station indicator. No. 1,417,765; May 30.
Pennock, Theodore E., Rochester, N. Y. Bottle-filling machine. No. 1,418,203; May 30.
Pennsylvania Wire Glass Company. (See Cox, W., and Shuman, assignors.)
Perfection Manufacturing Company. (See Dinesen, Laurits, assignor.)
Perine, William D. N., et al. (See Smith, John E., assignor.)
Perony, Jean A., assignor to Societe d'Outillage Mecanique et d'Usinage d'Artillerie, St. Ouen, Seine, France. Hydraulic windlass for drop-stamping machines. No. 1,417,856; May 30.
Persson, Gustaf A., assignor to The Persson Laboratories, Mount Clemens, Mich. Container for sterile liquids. No. 1,417,561; May 30.
Persson Laboratories, The. (See Persson, Gustaf A., assignor.)
Peter, Alfred, Beloit, Wis., assignor to Fairbanks, Morse & Co., Chicago, Ill. Externally-heatable ignition plug. No. 1,417,766; May 30.
Peters, Frank M., and W. H. Hungerford, assignors to Peters Machinery Company, Chicago, Ill. Cutting machine. No. 1,417,562; May 30.
Peters Machinery Company. (See Peters, F. M., and Hungerford, assignors.)
Petersen, William A., Excelsior Springs, Mo. Vehicle sign. No. 1,417,767; May 30.
Petteys, Willard A., Wilcox, Nebr. Truck and dump wagon. No. 1,418,163; May 30.
Pfeiffer, Stephan, St. Pilt, Neubau Station, Ribeauville Circle, Upper Alsace, assignor to C. Koller and C. Freysz, Strasburg, Alsace, France. Hand plane. No. 1,417,857; May 30.
Pfister & Vogel Leather Co. (See Bossert, Charles P., assignor.)
Phipps, Edward H., Cincinnati, Ohio. Hinge structure. No. 1,417,563; May 30.
Picradis, George. (See Anthose, Frank H., assignor.)
Pietzschke, Edward W., Redondo Beach, Calif. Mechanism for turning pump rods and the like. No. 1,417,858; May 30.
Pilkington, Alfred C., Rainhill, and J. Gaskell, St. Helens, assignors to Pilkington Brothers Limited, St. Helens, Lancaster, England. Apparatus for gathering glass from a molten mass. No. 1,417,684; May 30.
Pilkington Brothers Limited. (See Pilkington, A. C., and Gaskell, assignors.)
Piper, Eliza C., et al. (See Piper, Herbert H., assignor.)
Piper, Herbert H., Jackson, Mo., assignor of one-half to E. C. Piper, Jackson, and one-half to J. A. Withers, Cape Girardeau, Mo. Cultivator. No. 1,418,164; May 30.
Pitman, Henry L., Elizabeth, N. J., assignor to Underwood Computing Machine Company, New York, N. Y. Combined typewriting and computing machine. No. 1,417,685; May 30.
Ponstein, Isidore J., New Orleans, La. Fan. No. 1,418,165; May 30.
Porritt, Benjamin D., assignor to The North British Rubber Company, Limited, Edinburgh, Scotland. Vulcanization of rubber and other like substances. No. 1,418,166; May 30.
Porter, William K., Pittsburgh, Pa. Brake means. No. 1,418,167; May 30.
Potter, Thomas R. F., Brooklyn, N. Y. Check holder and punch. No. 1,417,564; May 30.
Powell, John F., Monroe, La. Portable combination woodworking machine. No. 1,417,686; May 30.
Preston, Edwin, Oakland, Calif. Building block. No. 1,418,168; May 30.
Printz, Wilhelm, Kettwig-Ruhr, Germany. Fertilizer-distributing machine. No. 1,418,169; May 30.
Priori, Rev. Marino. (See Izzo, Salvatore, assignor.)
Pritchard, William S., Detroit, Mich. Saw-filing machine. No. 1,417,687; May 30.
Prosser Company. (See Prosser, Joseph G., assignor.)
Prosser, Joseph G., Chicago, Ill., assignor to Prosser Company, Boston, Mass. Method and apparatus for obtaining work in internal-combustion engines. No. 1,417,859; May 30.
Public Service Cup Co. (See House, Henry A., assignor.)
Putkowski, Charles, Staten Island, assignor of one-half to W. Bronicki, Marine Harbor, N. Y. Cultivator. No. 1,417,942; May 30.
Putt, Edward D., assignor to The Firestone Tire and Rubber Company, Akron, Ohio. Machine for trimming tires. No. 1,417,627; May 30.
Q & C Company. (See Zimmerman, Emil C., assignor.)
Radcliffe, Fred, Philadelphia, Pa. Eyeglass-temple holder. No. 1,418,170; May 30.
Radimak, Steven, New York, N. Y. Brushing and polishing machine. No. 1,417,768; May 30.
Raettig, Bruno, Cologne-Lindenthal, Germany. Plug and socket contact. No. 1,418,171; May 30.
Ragonnet, Eugene L., Miami, Fla., assignor to Air Reduction Company, Inc. Blowpipe. No. 1,417,628; May 30.
Rainey-Wood Coke Company. (See Tiddy, William, assignor.)
Raiziss, George W. (See Schamberg, J. F., and Raiziss.)
Ralph, James S., Sullivan, Mo. Motorman's stool. No. 1,417,565; May 30.
Ramsdell, Frederick M., Worcester, Mass. Wire-coiling device. No. 1,417,629; May 30.
Ranko, Joseph M., New York, N. Y. Shoe heel. No. 1,418,094; May 30.
Rassmann, F., Manufacturing Company. (See Rassmann, Hugo C., assignor.)
Rassmann, Hugo C., assignor to F. Rassmann Manufacturing Company, Inc., Beaver Dam, Wis. Watering device for cattle. No. 1,417,688; May 30.
Raybestos Company. (See Stanley, Frederick C., assignor.)
Reach, Milton B., Chicopee, Mass. Playing card. No. 1,418,020; May 30.
Realing, Joseph M., Daytona, Fla. Amusement device. No. 1,417,566; May 30.
Reck, Eugen, assignor to Freeses Patent Eisenschutz und Schraubenwellenbekleidung fur Schiffe G. m. b. H., Charlottenburg, Germany. Coating for the preservation of wood, pasteboard, masonry, leather, sheet iron, etc. No. 1,418,172; May 30.
Regan, William J., assignor to The McConway & Torley Company, Pittsburgh, Pa. Uncoupling mechanism. No. 1,417,567; May 30.
Regan, William J. (See Milliken, I. H., and Regan.)
Reich, Hannah, Chicago, Ill. Toy. No. 1,417,860; May 30.
Reifgraber, Joseph J., St. Louis, Mo. Automatic firearm. No. 1,418,021; May 30.
Reisz, Eugen, Treptow, near Berlin, Germany. Apparatus for converting direct currents of low voltage into direct currents of high voltage. No. 1,418,023; May 30.
Reisz, Eugen, Treptow, near Berlin, Germany. Discharge-tube relay for undulatory currents. No. 1,418,022; May 30.
Remington Accounting Machine Corporation. (See Boa, Robert G. C., assignor.)
Remington Accounting Machine Corporation. (See Wahl, John C., assignor.)
Remington Typewriter Company. (See Holden, Joseph B., assignor.)
Reynolds, Arthur W., Newtown, Conn. Spring tooth for cultivators. No. 1,418,173; May 30.
Reynolds, Thomas A., Crafton, assignor to The McConway & Torley Company, Pittsburgh, Pa. Molding machine. No. 1,417,568; May 30.
Rhoades, Alonzo E., assignor to Draper Corporation, Hopedale, Mass. Battery feed for automatic filling-replenishing looms. No. 1,417,861; May 30.

Rhodes, Bert O., Kalamazoo, Mich. Universal joint. No. 1,417,689; May 30.
Richards, Charles A., Chicago, Ill., and M. M. Riester, Buffalo, N. Y. Multicolor-printing press. No. 1,417,569; May 30.
Richards, Charles A., Chicago, Ill. Multicolor-printing press. No. 1,417,769; May 30.
Rider, Fred A., Endicott, N. Y. Gate for gravity carriers. No. 1,418,024; May 30.
Ridgway, Herbert N., Winthrop, Mass. Amusement device. No. 1,417,570; May 30.
Riesner, Michael, Cincinnati, Ohio, assignor to Worthington Pump and Machinery Corporation. Air compressor. No. 1,417,571; May 30.
Riesner, Michael, Cincinnati, Ohio, assignor to Worthington Pump and Machinery Corporation. Automatic plate valve. No. 1,417,690; May 30.
Riester, Mabel M. (See Richards, C. A., and Riester.)
Rigby, Joseph S. R. (See Grant, R., and Rigby.)
Ringer, Soren, Chicago, Ill. Handle and making same. No. 1,418,095; May 30.
Roberts, Henry S., Los Angeles, Calif. Light dimmer. No. 1,417,630; May 30.
Roberts, James L., Gorin, Mo. Pedigree trap nest and flock culler. No. 1,417,631; May 30.
Rogers, Charles E., Detroit, Mich. Evaporating pan. No. 1,417,943; May 30.
Romans, Edgar D., assignor to G. Waldref, St. Paul, Minn. Manifold bracket. No. 1,417,691; May 30.
Rosen, David, New York, N. Y. Battery. No. 1,417,692; May 30.
Ross, Frederick R. W., Orange, N. J. Paper-holding device. No. 1,418,204; May 30.
Rotary King Safety Razor Company, The. (See Gullborg, John S., assignor.)
Royal Typewriter Company. (See Hess, E. B., and Myers, assignors.)
Royer, William B., assignor of one-half to D. E. Shriver, Baltimore, Md. Safety valve for fluid-pressure pipes. No. 1,418,096; May 30.
Russell, Samuel G., assignor to The Shakespeare Company, Kalamazoo, Mich. Fishing reel. No. 1,417,632; May 30.
Ryder, Gilbert E., Leonia, N. J. Dies for making return bends. No. 1,417,944; May 30.
Rzatkiewicz, Stephen A., Milwaukee, Wis. Gate latch. No. 1,418,174; May 30.
Saccone, Vincenzo, Johnstown, Pa. Trolley-pole head. No. 1,417,945; May 30.
Sackett, Edward H., Arvada, Colo. Aerial tramway grip. No. 1,417,572; May 30.
Saf-Pak Manufacturing Company. (See Krannert, Victor L., assignor.)
Safety Car Heating and Lighting Company, The. (See Watson, Leonard A., assignor.)
Salata, Andrew, New York, N. Y. Tool-operating machine. No. 1,418,205; May 30.
Salata, Paul, Natrona, Pa. Roof construction for freight cars. No. 1,417,573; May 30.
Sattler, Herman J., Sr., Quakertown, Pa. Let-off. No. 1,418,025; May 30.
Savage, Robert L., San Francisco, Calif. Link for tractor tracks. No. 1,417,693; May 30.
Scaife, Wm. B., & Sons, Company. (See Newman, Martin F., assignor.)
Schaefer, Frank H., Camden, N. J. By-pass valve. No. 1,417,770; May 30.
Schamberg, Jay F., and G. W. Raiziss, assignors to Dermatological Research Laboratories, Philadelphia, Pa. Medicinal compound and producing the same. No. 1,417,771; May 30.
Scherer, Albert G., assignor to The Excelsior Steel Furnace Company, Chicago, Ill. Heat-distributing device. No. 1,417,772; May 30.
Schmand, Charles C., Grays River, Wash. Driving mechanism. No. 1,417,862; May 30.
Schmid, William, Bronson, Mich. Artificial fish bait. No. 1,417,574; May 30.
Schmid, William, Bronson, Mich. Fishline reel. No. 1,417,633; May 30.
Schmidt, John E., and C. E. McArthur, Chicago, Ill. Rod-straightening machine. No. 1,418,026; May 30.
Schneiders, Gottfried, Berlin-Friedenau, Germany, assignor to Aktiengesellschaft "Eos," Glarus, Switzerland. Mineral-oil and carbohydrogen-gas exracting process. No. 1,418,097; May 30.
Schneiders, Gottfried, Berlin-Friedenau, Germany, assignor to Aktiengesellschaft "Eos," Glarus, Switzerland. Mineral-oil and carbohydrogen-gas extracting process. No. 1,418,098; May 30.
Scholin, Axel, Chicago, Ill., assignor to Automatic wrapping Machine Co. Label-pasting machine. No. 1,417,634; May 30.
Scholin, Axel R., assignor to Automatic Wrapping Machine Co., Chicago, Ill. Placing wrappers on packages and mechanism for carrying out said process. No. 1,417,946; May 30.
Schopper, Walter, assignor to Metallbank und Metallurgische Gesellschaft, Aktiengesellschaft, Frankfort-on-the-Main, Germany. Ore leaching. No. 1,417,947; May 30.
Schulze, Frederick W., Philadelphia, Pa. Deposit and collection receptacle. No. 1,417,773; May 30.
Schumacher, John, Los Angeles, Calif. Forming plaster board. No. 1,418,027; May 30.
Schuster, Karl R., Brooklyn, N. Y. Monolithic flat slab. No. 1,417,774; May 30.
Schwarzmann, Wolfgang E., Longmeadow, Mass., assignor to American Bosch Magneto Corporation, New York, N. Y. Timing mechanism. No. 1,418,175; May 30.
Scott, Dewey A., Buffalo, N. Y. Hot-air furnace. No. 1,417,775; May 30.
Seabright Co. (See Wright, Wilbur L., assignor.)
Sears, George V., Bingham Canyon, Utah. Rim tool. No. 1,417,863; May 30.
Sears, George V., Salt Lake City, Utah. Rim clamp. No. 1,417,864; May 30.
Sears, Roebuck and Co. (See Dun Lany, William P., assignor.)
Sears, William A., Leon, Kans. Type box. No. 1,418,206; May 30.
Seska, Mike, Niles, Ohio. Adjustable washstand. No. 1,417,948; May 30.
Shafer, Carl R., Detroit, Mich. Box construction. No. 1,417,776; May 30.
Shakespeare Company, The. (See Russell, Samuel G., assignor.)
Shears, Edward C., Portland, Oreg. Baseball target. No. 1,418,207; May 30.
Sheets, Lenard E., Campo, Colo. Combination lock. No. 1,418,176; May 30.
Sheller, David B., Tacoma, Wash. Auto burglar alarm. No. 1,418,177; May 30.
Sherman, Charles H., North Attleboro, Mass. Slide for ribbon watch guards. No. 1,417,575; May 30.
Shilepsky and Marshall. (See Marshall, Joseph B., assignor.)
Shockley, William E. (See Smith, A. P. O., and Shockley.)
Shotwell, James D., assignor to Shotwell Johnson Company, Minneapolis, Minn. Heating attachment for motor vehicles. No. 1,418,208; May 30.
Shotwell Johnson Company. (See Shotwell, James D., assignor.)
Shriver, David E. (See Royer, William B., assignor.)
Shuman, Arno. (See Cox, W., and Shuman.)
Sibley, Paul, Worcester, Mass. Multipolar switch. No. 1,417,576; May 30.
Siemens & Halske Aktiengesellschaft. (See Mansel, Paul, assignor.)
Sigal, Soloman, Brooklyn, N. Y. Malted machine. No. 1,418,099; May 30.
Simmons Company. (See Bayer, Matthew F., assignor.)
Simmons, Howard B., Toledo, Ohio. Carburetor. No. 1,418,100; May 30.
Simon, Peter, Elizabeth, N. J. Phonograph attachment. No. 1,418,101; May 30.
Simplex Steel Products Company. (See Burson, Harry H., assignor.)
Sinclair, George K., Louisville, Ky. Printing-press attachment. No. 1,418,102; May 30.
Singer Manufacturing Company, The. (See Allen, Edward B., assignor.)
Skeppstedt, Olof, Moline, Ill. Core-making machine. No. 1,417,577; May 30.
Sleeper, Otis H., Exeter, N. H. Swivel. No. 1,417,949; May 30.
Smal, Firmin, Couthuin, Belgium. Four-stroke-cycle internal-combustion engine. No. 1,417,694; May 30.
Smalley, James S., Muscatine, Iowa. Transmission. No. 1,417,950; May 30.
Smith, A. O., Corporation. (See Smith, R. S., and Hansen, assignors.)
Smith, A. O., Corporation. (See Smith, Reuben S., assignor.)
Smith, Albert D., Detroit, Mich. Elevation adjustment for sewing-machine feed. No. 1,417,865; May 30.
Smith, Albert P. O., and W. E. Shockley, Hebron, Mo. Pattern-controlled woodworking machine. No. 1,418,028; May 30.
Smith, Benjamin H., Turtle Creek, Pa., assignor to Westinghouse Electric & Manufacturing Company. Electrical measuring instrument. No. 1,417,695; May 30.
Smith, Gerald F., Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company. Car-lighting system. No. 1,417,696; May 30.
Smith, Goodwin B., assignor to The Junoform Company, Philadelphia, Pa. Vending machine. No. 1,417,578; May 30.
Smith, Harry F., assignor, by mesne assignments, to The Gas Research Company, Dayton, Ohio. Apparatus for maintaining constant heat value. No. 1,417,635; May 30.
Smith, Harry F., assignor, by mesne assignments, to The Gas Reesarch Company, Dayton, Ohio. Preventing wall action. No. 1,417,636; May 30.
Smith, Harry F., assignor, by mesne assignments, to The Gas Research Company, Dayton, Ohio. Fuel agitation. No. 1,417,637; May 30.
Smith, John A., assignor to Thumthum Products, Inc., Spokane, Wash. Glove. No. 1,418,103; May 30.
Smith, John E., New York, N. Y., assignor of one-third to T. T. Gaunt and one-third to W. D. N. Perine, New York, N. Y. Gas engine. No. 1,418,209; May 30.
Smith, Reuben S., and T. Hansen, assignors to A. O. Smith Corporation, Milwaukee, Wis. Lapping mechanism. No. 1,417,580; May 30.

Smith, Reuben S., and T. Hansen, assignors to A. O. Smith Corporation, Milwaukee, Wis. Lapping press. No. 1,417,581; May 30.
Smith, Reuben S., assignor to A. O. Smith Corporation, Milwaukee, Wis. Tension indicator for drawing presses. No. 1,417,579; May 30.
Smith, Theodore D. C., South Porcupine, Ontario, Canada. Culinary vessel. No. 1,417,582; May 30.
Snook, Frederick J., Salisbury, England. Cover for hermetically-sealed tins. No. 1,418,029; May 30.
Société D'Exploitation Des Brevets Dupius. (See Delune, Marcel, assignor.)
Société d'Outillage Mecanique et d'Usinage d'Artillerie. (See Perony, Jean A., assignor.)
Société Fabriques de Produits Chimiques de Thann Et De Mulhouse. (See Comment, Paul, assignor.)
Sommer, Q. H., Manufacturing Co. (See Biehl, Bernard, Sr., assignor.)
Somora, Joseph, Chicago, Ill. Combination keyless night latch. No. 1,417,777; May 30.
Souther, William H., West St. John, New Brunswick, Canada. Air-brake system. No. 1,418,210; May 30.
Southern Iron & Steel Corporation, The. (See Johnson, Henry, assignor.)
Sowers, Ossa, New York, N. Y. Controlling the condition of castings. No. 1,417,638; May 30.
Speirs, Charles W., assignor to The Morgan Crucible Company, Limited, London, England. Electrically-heated furnace. No. 1,418,030; May 30.
Spiselman, Louis, Brooklyn, N. Y. Slicing machine. No. 1,418,104; May 30.
Spurling, Sidney G., Portland, Oreg. Gypsy or side curtain for automobile or side tops. No. 1,417,866; May 30.
Stahl, Charles E. (See Vaughn, G. A., and Stahl.)
Stanbon, Charles P., Lynn, Mass. Vehicle spring. No. 1,418,031; May 30.
Standard Envelope Sealer Manufacturing Company. (See Foote, Edward H., assignor.)
Standiford, Fredrick A., Coldwater, Kans. Internal-combustion engine. No. 1,417,697; May 30.
Stanley, Frederick C., assignor to Raybestos Company, Bridgeport, Conn. Making friction facings. No. 1,417,778; May 30.
Stanley, Frederick C., assignor to The Raybestos Company, Bridgeport, Conn. Friction facing. No. 1,417,779; May 30.
Staples, Edward C., and H. H. Dean, Canton, Ohio. Emergency gasoline can. No. 1,417,951; May 30.
Stelmach, Joseph M., St. Paul, Minn. Rotary slicer and grater. No. 1,418,178; May 30.
Stempel, Herman F., Jr., Fort Madison, Iowa. Mandrel for abrasive and polishing tools. No. 1,417,584; May 30.
Stephens, Alva L., Portland, Oreg. Loading hopper and chute. No. 1,417,780; May 30.
Sterner, Daniel L., Spokane, Wash. Table leveler. No. 1,417,639; May 30.
Sterner, Daniel L., Spokane, Wash. Adjustable caster. No. 1,417,640; May 30.
Stevens, John C., assignor, by mesne assignments, to Leupold, Voelpel & Company, Portland, Oreg. Water meter. No. 1,418,032; May 30.
Stoffers, Henry, Newark, N. J. Piston ring. No. 1,418,211; May 30.
Stoner, Emma H., Enid, Okla. Carpet beater. No. 1,418,179; May 30.
Strand, Charles, Burkburnett, Tex. Fishing tool. No. 1,418,212; May 30.
Stratton, William B., Detroit, Mich. Lavatory fixture. No. 1,417,583; May 30.
Streibel, Lüdwig, assignor of two-thirds to A. Ehresmann and O. Maier, Karlsruhe, Germany. Punching machine. No. 1,417,867; May 30.
Strobel, Joseph, Tulsa, Okla. Temper screw. No. 1,417,698; May 30.
Stuart, Alexander T., and G. N. Middleton, assignors to The Toronto Power Company Limited, Toronto, Ontario, Canada. Apparatus for use in connection with chemical and physical operations. No. 1,417,585; May 30.
Stuart, Robert F., Kokomo, Ind. Package-marking machine. No. 1,417,781; May 30.
Studdard, Thomas A., Carbon Hill, Ala. Shock absorber for automobiles. No. 1,418,105; May 30.
Stuffings, Katherine E., administratrix. (See Stuffings, Lewis M.)
Stuffings, Lewis M., deceased, Peoria; K. E. Stuffings, Peoria, Ill., administratrix. Shingle. No. 1,417,641; May 30.
Stukenborg, Frederick W. (See Stukenborg, Louis C., assignor.)
Stukenborg, Louis C., assignor to F. W. Stukenborg, Chicago, Ill. Conveying and cleansing mechanism for cotton. No. 1,417,782; May 30.
Stung, William P., Lansdowne, Md., and L. R. Gilbert, Kalamazoo, Mich., assignor to The Webb Talking Pictures Company. Multiple-record table for motion-picture machines. No. 1,418,180; May 30.
Sullivan Machinery Company. (See Cartlidge, Frank, assignor.)
Sullivan Machinery Company. (See Johansen, Harry C., assignor.)
Sumbling Machinery Company. (See Sumbling, William H., assignor.)
Sumbling, William H., assignor to Sumbling Machinery Company, Limited, Toronto, Ontario, Canada. Combined reversing gear and belt shifter and tightener mechanism for power-driven machines. No. 1,417,699; May 30.
Summers, Charles E. (See Harden, Ora D., assignor.)
Sunde, A. A., Ute, Iowa. Tractor attachment. No. 1,418,181; May 30.
Sutcliffe, Godfrey H., West Ealing, England. Means for taking photographs with special scenic or background effects. No. 1,418,033; May 30.
Sviontek, Roman, Chicago, Ill. Meat holder. No. 1,418,213; May 30.
Swaney, Robert R., Sacramento, Calif. Automobile radiator. No. 1,417,783; May 30.
Swift, Worthington. (See Lineaweaver, William C., assignor.)
Sylvester, Thomas J., Philadelphia, Pa. Game. No. 1,418,214; May 30.
Szarvasy, Emerich, Budapest, Hungary. Process to produce mixtures of hydrogen and nitrogen. No. 1,417,952; May 30.
Tabor, Benjamin C., Ashland, Oreg. Inhaler. No. 1,418,182; May 30.
Taggart, George H., Port Washington, N. Y. Nonset automatic stop for phonographs. No. 1,417,586; May 30.
Tallman, Albert R., Nashville, Tenn. Combination fountain pen and pencil. No. 1,417,642; May 30.
Tanner, Daniel R., Le Grande, Oreg. Device for manipulating cotter pins. No. 1,417,868; May 30.
Tennent, John G., Dallas, Tex. Attachment for motor vehicles. No. 1,418,034; May 30.
Tharaldsen, Filip, Trondhjem, Norway. Electric furnace. No. 1,417,953; May 30.
Thatcher, Charles F., Providence, R. I. Bottle stopper. No. 1,418,035; May 30.
Theobald, Charles K., Jonesboro, Ark. Electric-fixture-display device. No. 1,418,215; May 30.
Thermoid Rubber Company. (See Grew, Walter F., assignor.)
Thompson, Steele L., Home, Pa. Automobile alarm. No. 1,417,700; May 30.
Thorpe, Joseph M. and W. C., Oakland, Calif. Child's vehicle. No. 1,418,266; May 30.
Thorpe, William C. (See Thorpe, Joseph M. and W. C.)
Thumthum Products, Inc. (See Smith, John A., assignor.)
Thurston, Julius T., assignor of one-half to F. B. Briare, Stockton, Calif. Picker buffer for looms. No. 1,417,954; May 30.
Thwing, Charles B., assignor to Thwing Instrument Company, Philadelphia, Pa. Graphic recorder. No. 1,418,183; May 30.
Thwing Instrument Company. (See Thwing, Charles B., assignor.)
Tiddy, William, Norristown, Pa., assignor to Rainey-Wood Coke Company, New York, N. Y. Removal of paints, varnishes, etc. No. 1,417,955; May 30.
Tischer, Edward R., Houston, assignor of forty per cent to G. Emmert, Harris County, Tex. Cotton gin. No. 1,418,106; May 30.
Toepfer, Hans, New York, N. Y., assignor to The Grasselli Chemical Company, Cleveland, Ohio. Dyeing. No. 1,417,869; May 30.
Tonkin, William R., Bisbee, Ariz. Direction signal. No. 1,418,036; May 30.
Torbensen Axle Company, The. (See Carlson, Gustav W., assignor.)
Toronto Power Company Limited, The. (See Stuart, A. T., and Middleton, assignors.)
Tothill, William S., Chicago, Ill. Teeter device. No. 1,418,037; May 30.
Toupet, Julius H., Pittsburgh, Pa. Tile for floor structures. (Reissue.) No. 15,369; May 30.
Tousey, Sinclair, New York, N. Y. Golf club. No. 1,418,038; May 30.
Tousey, Sinclair, New York, N. Y. Golf club. No. 1,418,039; May 30.
Townsend Company. (See de Lapotterie, Otto H., assignor.)
Traffic Motor Truck Corporation. (See Dorsey, Sherman H., assignor.)
Trane, Reuben N., La Crosse, Wis. Compressor or vacuum pump. No. 1,418,040; May 30.
Trane, Reuben N., La Crosse, Wis. Centrifugal pump. No. 1,418,041; May 30.
Troutman, Elmer E. (See Bremner, G. D., and Troutman.)
Trump, Elno H., Sebring, assignor of one-half to J. M. Alderfer, Akron, Ohio. Apparatus for making pneumatic tires. No. 1,417,701; May 30.
Trunick, Charles, Farrell, Pa. Screw driver. No. 1,418,184; May 30.
Truscon Steel Company, The. (See White, Herbert E., assignor.)
Trussell, Wilbert L., Minneapolis, Minn. Plow. No. 1,417,643; May 30.
Trust, Henry. (See Trust, Josephine and H.)
Trust, Josephine and H., Park Ridge, N. J., assignors, by mesne assignments, to Meteor Mixing Machine Co., Inc. Food machine. No. 1,418,107; May 30.
Trust, Josephine and H., Park Ridge, N. J., assignors, by mesne assignments, to Meteor Mixing Machine Co., Inc. Food machine. No. 1,418,108; May 30.

Tully, Francis W., Chestnut Hill, Mass. Cloth finishing and product thereof. No. 1,417,587; May 30.
Turnbull, William, Peoria, Ill., assignor to The Holt Manufacturing Company, Stockton, Calif. Windlass attachment for tractors. No. 1,417,784; May 30.
Turner, James S. (See Burstall, W. H., and Turner.)
Tyler, Edward B., Wayne City, Ill. Concrete-post mold. No. 1,417,644; May 30.
Underwood Computing Machine Company. (See Pitman, Henry L., assignor.)
Underwood Typewriter Company. (See Dobson, William A., assignor.)
United Cigarette Machine Co. (See Koerner, Ewald, assignor.)
United Shoe Machinery Corporation. (See Brock, Matthias, assignor.)
United Shoe Machinery Corporation. (See Littlefield, Augustine F., assignor.)
United Shoe Machinery Company. (See Mackenzie, Fred L., assignor.)
Universal Conveyor Co. (See Landis, Irwin D., assignor.)
Urban Machine and Tool Company, The. (See Haumann, George, assignor.)
Valley Electric Company. (See Ballman, Edwin C., assignor.)
Van Amburgh, Charles, Tacoma, Wash., assignor to American Smelting & Refining Company. Converter hood. No. 1,417,588; May 30.
Van Buskirk, Ernest K., assignor of one-half to H. I. Harris, Binghamton, N. Y. Work holder for endless conveyers. No. 1,418,185; May 30.
Van Tuyl, Thomas. (See Cook, A. E., and Van Tuyl.)
Varga, Paul, assignor of one-half to The Aromint Manufacturing Company, Cincinnati, Ohio. Wrapping or labeling machine. No. 1,417,956; May 30.
Varinois, Marcel E. (See Curie, M., and Varinois.)
Vaughn, George A., and C. E. Stahl, assignors to The Parsons Company, Newton, Iowa. Digging machine. No. 1,418,109; May 30.
Vedovelli, Edouard, Paris, France. Relay. No. 1,417,785; May 30.
Vickers, Robert. (See Flood, William, assignor.)
Vissering, Harry, & Company. (See Anderson, Harry T., assignor.)
Vogelsang, Max, assignor to Firm Voigt & Haeffner Actien Gesellschaft, Frankfort-on-the-Main, Germany. Electric switch. No. 1,417,957; May 30
Vogt, Alma, St. Louis, Mo. Toy. No. 1,417,958; May 30.
Voight, Alger S., Joliet, Ill. Transmission band for automobiles. No. 1,417,870; May 30.
Voigt & Haeffner Actien Gesellschaft. (See Vogelsang, Max, assignor.)
Von Bichowsky, Foord, and J. Harthan, Glendale, Calif. Producing cyanides. No. 1,417,702; May 30.
Vorse, Blanchard B., Des Moines, Iowa, assignor to Western Silo Company, Limited. Silo and erecting silos. No. 1,418,216; May 30.
Wackwitz, Ernest F., Arlington Heights, Mass. Attachment for spark plugs. No. 1,417,871; May 30.
Wade, Marshal D. (See French, Sherman T., assignor.)
Waffenschmidt, Walter, Karlsruhe, Germany. Device for indicating curves. No. 1,417,703; May 30.
Wahl, John C., Chicago, Ill., assignor to Remington Accounting Machine Corporation, New York, N. Y. Calculating machine. No. 1,418,110; May 30.
Wahl, John C., Chicago, Ill., assignor to Remington Accounting Machine Corporation, New York, N. Y. Calculating machine. No. 1,418,111; May 30.
Waldes, Jindřich, Prague, Bohemia. Safety-pin card or package. No. 1,417,589; May 30.
Waldref, Grant. (See Romans, Edgar D., assignor.)
Walker, William L., New York, N. Y. Sound-receiving apparatus. No. 1,417,786; May 30.
Walker, U. G. (See Green, Arch B., assignor.)
Wall, David M., Providence, R. I. Blade pendant. No. 1,417,872; May 30.
Walter, Harrison B., Philadelphia, Pa., assignor to Fibre Container Company. Multiple stapling machine. No. 1,417,704; May 30.
Waltham Watch Company. (See Fitch, Ezra C., assignor.)
Walther, George, Dayton, Ohio. Apparatus for casting steel wheels. No. 1,417,959; May 30.
Ward, Jerome. (See Barwell, J. W., Ward, Nelson, Hingher, Booth, and Blows.)
Warner, Joseph L., Phoenix, Ariz. Match holder for hats. No. 1,418,217; May 30.
Warnock, Herriott S., Chicago, Ill. Printing-element holder. No. 1,419,112; May 30.
Warren, John R., and A. Brechting, Grand Rapids, assignors to J. R. Warren, Grand Rapids, D. J. Campbell, Muskegon Heights, C. E. Johnson, P. R. Beardsley, and C. P. Damm, trustees, Muskegon, Mich. Engine valve. No. 1,417,590; May 30.
Warren, John R., et al., trustees. (See Warren, J. R., and Brechting, assignors.)
Waterlow and Sons, Limited. (See Goodman, Vivian E., assignor.)
Watson, Leonard A., Port Washington, assignor to The Safety Car Heating and Lighting Company, New York, N. Y. Railway lighting system. No. 1,417,787; May 30.
Wawricka, John, New York, N. Y. Pipe, cigar, and cigarette holder. No. 1,418,113; May 30.
Wayne Oil Tank and Pump Company. (See Baker, Linnaeus E., assignor.)
Webb Talking Pictures Company, The. (See Stunz, W. P., and Gilbert, assignors.)
Webster Electric Company. (See Kleckner, Arthur C., assignor.)
Webster, Howard M., Chicago, Ill. Furnace-ashes washer. No. 1,417,645; May 30.
Weibull, Nils R. M., Bofers, Sweden. Divided pulley. No. 1,417,960; May 30.
Welsh, Edward, Wausau, Wis. Garden marker for rakes. No. 1,417,705; May 30.
Welsh, Wilbert L. (See Genung, G. J., and Welsh.)
Welter, Grover C., Roswell, N. Mex. Bow. No. 1,418,218; May 30.
Wenk, George L., Mechanicsburg, Pa. Vehicle signal. No. 1,418,042; May 30.
Westerbeck, Frederick, St. Louis, Mo. Sealing containers. No. 1,418,114; May 30.
Western Silo Company. (See Vorse, Blanchard B., assignor.)
Westinghouse Electric & Manufacturing Company. (See Conrad, Frank, assignor.)
Westinghouse Electric & Manufacturing Company. (See Eaton, George M., assignor.)
Westinghouse Electric & Manufacturing Company. (See Ehrenfeld, R., and Caldwell, assignors.)
Westinghouse Electric & Manufacturing Company. (See Hellmund, R. E., and Jungk, assignors.)
Westinghouse Electric & Manufacturing Company. (See Hellmund, Rudolf E., assignor.)
Westinghouse Electric & Manufacturing Company. (See Kempton, Willard H., assignor.)
Westinghouse Electric & Manufacturing Company. (See Kothny, Gottdank L. E., assignor.)
Westinghouse Electric & Manufacturing Company. (See Lammers, Edwin S., Jr., assignor.)
Westinghouse Electric & Manufacturing Company. (See Smith, Benjamin H., assignor.)
Westinghouse Electric & Manufacturing Company. (See Smith, Gerald F., assignor.)
Whalbe, Jacob M., New York, N. Y. Elevator. No. 1,417,873; May 30.
Wheeler, Harvey C., Lexington, Mass. Towel cabinet. No. 1,418,219; May 30.
Wheeler, Seth, Castleton, N. Y. Process of and machine for cutting sheet material. No. 1,418,115; May 30.
White, Franklin R., assignor to The Patent Button Company, Waterbury, Conn. Button. No. 1,417,646; May 30.
White, Herbert E., assignor to The Truscon Steel Company, Youngstown, Ohio. Metal-expanding machine. No. 1,417,706; May 30.
White, John, Sunningdale, England. Golf ball. No. 1,418,220; May 30.
White, Milo R., Elkhart County, Washington Township, Ind. Steering-wheel lock. No. 1,417,647; May 30.
White, William M., Milwaukee, Wis. Water wheel. No. 1,418,116; May 30.
Whitney, George E., Bridgeport, Conn. Bottle-capping machine. No. 1,417,874; May 30.
Widell, Magnus E., Maywood, Ill., assignor to American Can Company, New York, N. Y. Feeding device for slitters. No. 1,418,117; May 30.
Wilcox, George S., Burkburnett, Tex. Pump valve. No. 1,418,043; May 30.
Wilder, William T., St. Paul, Minn. Vehicle wheel. No. 1,418,221; May 30.
Wilke, Karl, assignor to Farbwerke Vorm. Meister Lucius & Brüning, Hochst-on-the-Main, Germany. Anthraquinone derivatives and making same. No. 1,417,875; May 30.
Williams, Clarence P., Syracuse, Ohio. Slip socket. No. 1,417,648; May 30.
Williams, Delavergne P. and J. F., Sandusky, Ohio. Plug-in attachment. No. 1,417,649; May 30.
Williams, Frank P., Detroit, Mich. Drag link for steering gears. No. 1,418,044; May 30.
Williams, John F. (See Williams, Delavergne P. and J. F.)
Williams, Milton F., assignor to Williams Patent Crusher and Pulverizer Company, St. Louis, Mo. Reducing fibrous sheet material. No. 1,417,961; May 30.
Williams Patent Crusher and Pulverizer Company. (See Williams, Milton F., assignor.)
Wilson, Edward F., Chicago, Ill., assignor to Lightning Change Rim Corporation, Berrien Springs, Mich. Collapsible rim. No. 1,418,045; May 30.
Wilson, William E., Mason City, Iowa. Clay-product-facing machine. No. 1,417,788; May 30.
Winklehaus, Frederick O., New York, N. Y., assignor to Metropolitan Electric Manufacturing Company. Safety switch. No. 1,417,650; May 30.
Wise, Charles H., Oil City, Pa. Stopcock. No. 1,418,118; May 30.
Withers, John A., et al. (See Piper, Herbert H., assignor.)
Wittmeier, Robert S. (See Hainline, Theodore W., assignor.)
Wix, William H., Baltimore, Md. Automatic oil-feed device. No. 1,418,046; May 30.
Woehr, Frederick A., assignor to G. J. Gillies, Rochester, N. Y. Strip-uniting machine. No. 1,417,651; May 30.
Wolcott, Karl C., Florahome, Fla. Stump puller. No. 1,418,119; May 30.
Wood, Frank M., Sacramento, Calif. Spark plug. No. 1,417,876; May 30.

Wood, Henry A. W., assignor to Wood Newspaper Machinery Corporation, New York, N. Y. Means for preventing vibration of printing-press cylinders. No. 1,417,652; May 30.
Wood Newspaper Machinery Corporation. (See Wood, Henry A. W., assignor.)
Woods, Charles S., Indianapolis, Ind. Adjustable bedstead for invalids. No. 1,417,654; May 30.
Woodard, William E., Forest Hills, N. Y. Railway truck. No. 1,417,653; May 30.
Worthington Pump and Machinery Corporation. (See Grace, John F., assignor.)
Worthington Pump and Machinery Corporation. (See Riesner, Michael, assignor.)
Wright, Arthur, Montclair, N. J. Rod packing. No. 1,417,877; May 30.
Wright, Frederick E., Washington, D. C. Eyepiece prism. No. 1,417,962; May 30.
Wright, Samson D. (See Boyer, William E., assignor.)
Wright, Wilbur L., assignor to Sealright Co., Inc., Fulton, N. Y. Paper container for greaselike substances. No. 1,417,707; May 30.
Wright, Wilbur L., assignor to Sealright Co., Inc., Fulton, N. Y. Rendering paper and paper containers greaseproof. No. 1,417,708; May 30.
Yelm, Charles W., assignor of one-half to M. G. Kirkpatrick, Denver, Colo. Spreader for road construction. No. 1,417,709; May 30.
Zawistowski, Martin, Brooklyn, N. Y. Lock. No. 1,417,963; May 30.
Zeller, Isaiah N., Chicago, Ill. Picture frame, button, badge, and the like. No. 1,418,222; May 30.
Zenith Carburetor Company, The. (See Heftler, Victor R., assignor.)
Zerweck, Ernest, Oakland, Calif. Traveling sprinkler. No. 1,418,047; May 30.
Zielinski, Joseph, East St. Louis, Ill. Combined table and chair. No. 1,417,655; May 30.
Zimmerman, Emil C., assignor to Q & C Company, New York, N. Y. Guard-rail clamp. No. 1,418,120; May 30.
Zweiman, James M., West New York, N. J. Combination lock. No. 1,417,789; May 30.

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

Amato, Gennaro A., assignor to Usnoice Refrigerating Corporation, New York, N. Y. Iceless refrigerator. No. 61,009; May 30.
Coco, Rosario, Brooklyn, N. Y. Votive stand. No. 61,010; May 30.
Dahl, Thure, New York, N. Y., assignor to Lightoiler Company. Loop for lighting fixtures. No. 61,011; May 30.
E. & J. Bass, Incorporated. (See Negbaur, Harry, assignor.)
Eisenmayer, Walter G., Los Angeles, Calif. Bottle. No. 61,012; May 30.
Ellery, Eugene, Jr., New York, N. Y. Doll. No. 61,013; May 30.
Gillinder & Sons, Inc. (See Gillinder, Edgar A., assignor.)
Gillinder, Edgar A., assignor to Gillinder & Sons, Inc., Philadelphia, Pa. Glass lighting bowl Nos. 61,014–16; May 30.
Heilhecker, Eugene C., Bristol, R. I., assignor to United States Rubber Company. Sole of a rubber boot or shoe. No. 61,017; May 30.
Israel, Sidney M., Richmond Hill, N. Y. Combined lamp stand and smoking set. No. 61,018; May 30.
Lightoiler Company. (See Dahl, Thure, assignor.)
Negbaur, Harry, New York, N. Y., assignor to E. & J. Bass, Incorporated. Ash tray. No. 61,019; May 30.
Poritz, Frederick M., assignor to Star Chandelier Company, Inc., New York, N. Y. Arm for a chandelier body. No. 61,020; May 30.
Ralicki, Henry J. (See Wonsowicz, George, assignor.)
Schlaich, Herman, Long Island City, N. Y. Dial plate for temperature-indicating instruments. No. 61,020; May 30.
Sharp, Frank W., Columbus, Ohio. Doll. No. 61,022; May 30.
Star Chandelier Company. (See Poritz, Frederick M., assignor.)
United States Rubber Company. (See Heilhecker, Eugene C., assignor.)
Usnoice Refrigerating Corporation. (See Amato, Gennaro A., assignor.)
Waters, Mazie T., Waco, Tex. Child's soap-bubble apron. No. 61,023; May 30.
Wonsowicz, George, assignor of one-half to H. J. Ralicki, Forks, N. Y. Curtain and shade bracket. No. 61,024; May 30.
Zeglen, Casimir, Chicago, Ill. Tire. No. 61,025; May 30.

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

Almetal Manufacturing Company, The, Maplewood, Mo. Laundry washing machines. No. 155,363; May 30.
American Lady Corset Company. (See Siegel, J., & Co., assignor.)
American Wholesale Corporation, (Baltimore Bargain House,) Baltimore and Cumberland, Md. Certain precious metal ware. No. 155,364; May 30.
Ashaway Line & Twine Manufacturing Company, Ashaway, R. I. Fishing line. Nos. 155,365–80; May 30.
Bauer & Black, Chicago, Ill. Soap. No. 155,381; May 30.
Bayer Company, Inc., The, New York, N. Y. Certain medicinal preparations. No. 155,382; May 30.
Bethlehem Steel Company, Bethlehem, Pa. Guns for fixed and mobile artillery and naval guns. No. 155,383; May 30.
Bianchini, Férier, Lyon, France. Piece goods of silk, wool, etc. No. 155,384; May 30.
Binder Brothers, Inc., New York, N. Y. Certain articles of jewelry. No. 155,385; May 30.
Bixler, Miles F., Company, Cleveland, Ohio. Certain articles of jewelry. No. 155,386; May 30.
Boston Blacking Company, Portland, Me., and East Cambridge, Mass. Soap. No. 155,387; May 30.
British-American Tobacco Company, Limited, New York, N. Y. Smoking tobacco and cigarettes. No. 155,388; May 30.
Brune, Pottberg & Co., New York, N. Y. Cotton piece goods. No. 155,389; May 30.
Butler, J. W., Paper Company, Chicago, Ill. Bond paper. No. 155,569; May 30.
Cantol Wax Company, San Antonio, Tex. Waterproofing, preserving, and filling compound in the nature of a belt dressing. No. 155,390; May 30.
Capudine Chemical Company, Raleigh, N. C. Salve or ointment for croup, colds, congestion, and inflammation. No. 155,391; May 30.
Carnvel Company, Inc., New York, N. Y. Chemicals, medicines, and pharmaceutical preparations. No. 155,392; May 30.
Carbone, Mario, New York, N. Y. Nonalcoholic, maltless beverages, and sirups for making same. No. 155,393; May 30.
China American Tobacco & Trading Co., Inc., New York, N. Y. Hair nets. No. 155,394; May 30.
Chowdhury, Kaelas D., Chicago, Ill. Perfumes, toilet waters, and sachets. No. 155,395; May 30.
Clapper, Anne T., Pittsburgh, Pa. Toilet creams, astringent and skin-cleansing lotions, muscle oil. No. 155,396; May 30.
Cleveland Fruit Juice Company, The, Cleveland, Ohio. Earthenware and porcelain jugs. No. 155,397; May 30.
Comer, Fetterly & Co. Inc., Union Hill, N. J., and New York, N. Y. Certain medicinal preparation. No. 155,398; May 30.
Comer, Fetterly & Co. Inc., Union Hill, N. J., and New York, N. Y. Pharmaceutical preparation of animal-gland substances for ovarian insufficiency. No. 155,399; May 30.
Commercial Soap Company, Reno, Nev. Toilet soap. No. 155,400; May 30.
Consumers Fuse and Powder Company, San Francisco, Calif. Safety fuse. No. 155,401; May 30.
Continental Jewelry Company, The, Cleveland, Ohio. Certain articles of jewelry. No. 155,402; May 30.
Dearborn Supply Company, Chicago, Ill. Depilatory. No. 155,403; May 30.
Dervin, Patrick J., New York, N. Y. Medicinal preparation for skin diseases, open sores, rheumatism, and stiff joints. No. 155,404; May 30.
Doster-Northington Drug Co., Birmingham, Ala. Medicinal salve. No. 155,570; May 30.
Duluth Boer Oil Co., Duluth, Minn. Waterproof dressing for leather and canvas goods. No. 155,405; May 30.
Du Pont, E. I., de Nemours & Company, Wilmington, Del. Gunpowder. No. 155,406; May 30.
Du Pont, E. I., de Nemours & Company, Wilmington, Del. Caps, fuses, igniters, etc. No. 155,407; May 30.
Du Pont, E. I., de Nemours & Company, Wilmington, Del. Dynamite. No. 155,408; May 30.
Dupuis Chemical Company, Los Angeles, Calif. Machine-poisoned raisins. No. 155,409; May 30.
Ellwood, James B., Chicago, Ill. Matches. No. 155,410; May 30.
Elwell Brush Company, Rockford, Ill. Certain brushes, dusters, and mops. No. 155,411; May 30.
Emerson Phonograph Company, Inc., New York, N. Y. Phonograph and phonograph records. No. 155,412; May 30.
Emerson Soap Co., Dixon, Ill. Soap. No. 155,413; May 30.
Empress Manufacturing Co., Inc., The, New York, N. Y. Toilet preparation. No. 155,414; May 30.
Essayan, Harold G., Providence, R. I. Certain articles of jewelry and precious metal ware. No. 155,415; May 30.
Everybody's Talking Machine Company, Philadelphia, Pa. Reproducers and needles for talking machines. No. 155,571; May 30.
Fahrney, Dr. Peter, & Sons Co., Chicago, Ill. Certain tonic. No. 155,416; May 30.
Fenton, E. B., M. D. C., Olin, Iowa. Medical compounds for use in the treatment of diseases of the hog, horse, cattle, etc. No. 155,417; May 30.
Ferrone, Filippo, New York, N. Y. Certain medicinal preparation. No. 155,418; May 30.
Field, George C., Newark, N. J. Soap. No. 155,419; May 30.
Gallaher, Ltd., Belfast, Ireland. Smoking tobacco, cigarettes, cigars, and snuff. Nos. 155,420–22; May 30.
Gallaher, Ltd., Belfast, Ireland. Smoking and chewing tobacco, cigarettes, cigars, and snuff. No. 155,423; May 30.
Gans, Louis R., Brooklyn, N. Y. Certain furniture and upholstery. No. 155,424; May 30.
General Tobacco Company, The, Louisville, Ky. Cigarettes. No. 155,425; May 30.
Gillette Rubber Company, assignor to Gillette Rubber Company, Eau Claire, Wis. Rubber vehicle tires and tire treads. No. 155,426; May 30.
Glenn, Zollie L., Chaffee, Mo. Nonalcoholic, maltless beverage and sirup for making the same. No. 155,427; May 30.
Globe Soap Company, The, Cincinnati, Ohio. Soap. No. 155,428; May 30.
Goldsmith Brothers Smelting and Refining Company, Chicago, Ill. Certain articles of jewelry. No. 155,429; May 30.
Gordon, Samuel, New York, N. Y. Pipes, cigar and cigarette holders and cases, tobacco bags, humidors. No. 155,430; May 30.
Grasselli Chemical Company, The, Cleveland, Ohio. Dyes and dyestuffs. Nos. 155,431–3; May 30.
Gray, Myrtle, Clever, Mo. Face powder. No. 155,434; May 30.
Grenoville, Marie M. Richard Vve, Asnieres, France. Perfumes, toilet waters, etc. No. 155,553; May 30.
Guy, John C., Company, Incorporated, The, Lexington, Ky. Cigars. No. 155,435; May 30.
H and S Laboratories, Chicago, Ill. Metal polishes. No. 155,436; May 30.
Hadon Products Corporation, New York, N. Y. Cigarette and cigar holders. No. 155,437; May 30.
Hall & Ruckel. (See Hall, William H., assignor.)
Hall, William H., New York, N. Y., assignor to Hall & Ruckel. Dentifrice. No. 20,552; renewed Jan. 5, 1922.
Harris, Clarence E., Tiburon, Calif. Auto top and seat dressing. No. 155,438; May 30.
Hart and Crouse Co. (See Hart, H. Gilbert & Co., assignors.)
Hart, H. Gilbert & Co., Utica, N. Y., assignor to Hart and Crouse Co. Heating furnaces. No. 20,363; renewed Nov. 10, 1921.
Hasden, Marjorie J., Chicago, Ill. Manicure oil and nail polish. No. 155,439; May 30.
Hassinger, Egon, Barcelona, Spain. Carbon paper. No. 155,440; May 30.
Havens, Clara V., New York, N. Y. Washable dolls, toy animals, and doll clothes. No. 155,441; May 30.
Hawkeye Cleanser Co., Lost Nation, Iowa. Cleanser in soap form. No. 155,442; May 30.
Hazleton Baking Co., Hazleton, Pa. Bread and rolls. No. 155,443; May 30.
Hinkle, Fred E., Atlanta, Ga. Certain toilet preparations. No. 155,444; May 30.
Hipp, Didisheim Co., Inc., New York, N. Y. Watch bracelets. No. 155,445; May 30.
Hodges, Emery C., Joliet, Ill. Preparations for waterproofing, preserving, and softening shoe leather. No. 155,446; May 30.
Holcomb & Hoke Mfg. Co., Indianapolis, Ind. Certain heat-resisting glassware. No. 155,447; May 30.
Holmac, Inc., New York, N. Y. Golf balls. No. 155,448; May 30.
Howard, James D., Knoxville, Tenn. Certain medicinal preparation. No. 155,449; May 30.
Hubbard, H. C., Co., Humboldt, Iowa. Nonalcoholic, maltless beverage. No. 155,572; May 30.
Huggins, Walter H., Malden, Mass. Disinfectants, deodorizers, fumigators, and antiseptics. No. 155,450; May 30.
Hupp Motor Car Corporation, Richmond, Va. Automobiles. No. 155,451; May 30.
Huseman, Charles, St. Louis, Mo. Convertible children's wagons, coasters, and scooters. No. 155,452; May 30.
Huyck, F. C., & Sons, Albany, N. Y. Steamer and sanitarium rugs, lap robes, overcoating. No. 155,453; May 30.
Illinois Razor Strop Company, Chicago, Ill. Razor strops. No. 155,454; May 30.
In-Cre-So Company, The, Kansas City, Mo. Stimulant to increase the egg production of laying hens. No. 155,455; May 30.
Ingram, Frederick F., Company, Detroit, Mich. Complexion lotion. No. 155,456; May 30.
International Salt Co. of New York, New York, N. Y. Dairy and table salt. No. 155,457; May 30.

Israel, Morris, New York, N. Y. Fabrics in the piece for use in the making of corsets. No. 155,458; May 30.
Jack & Jill Knitting Mills, Inc., Newark, N. J. Certain articles of clothing. No. 155,459; May 30.
Jaeger, Oswald, Baking Co., Milwaukee, Wis. Breads and pastry. No. 155,501; May 30.
Janitors Supply House, Baltimore, Md. Soap and soap powders. No. 155,460; May 30.
Jasper Desk Co., Jasper, Ind. Certain office furniture. No. 155,461; May 30.
Jones, Samuel, & Co., Newark, N. J. Certain articles of stationery. No. 155,573; May 30.
Kallberg, Anna M., Minneapolis, Minn. Cleaner and polisher. No. 155,462; May 30.
Kelly-Springfield Tire Company, New York, N. Y. Resilient vehicle tires. No. 155,463; May 30.
Kendall Products Corporation, Wilmington, Del., and New York, N. Y. Cleansing fluids for fabrics. No. 155,464; May 30.
Klavon, James J., Pittsburgh, Pa. Corn remedies. No. 155,465; May 30.
Klemm, Wm. W., Chicago, Ill. Filters, coolers, and bottle washers. No. 155,574; May 30.
Knickerbocker Case Company, Chicago, Ill. Cases and bags made of leather, fiber, etc., for fishing tackle. Nos. 155,466–7; May 30.
Knight, Maurice A., East Akron, Ohio. Acid-proof chemical stoneware. No. 155,468; May 30.
Kohl-Pye Manufacturing Co., Rochester, N. Y. Cuff buttons. No. 155,470; May 30.
Kunstharzfabrik Dr. Fritz Pollak G. m. b. H., Vienna, Austria. Cigar and cigarette holders, pipestems, etc. No. 155,469; May 30.
Lehmann & Bohne, Berlin, Germany. Toilet preparations. No. 155,471; May 30.
Liberto, John, New York, N. Y. Chemical preparation as an insect exterminator. No. 155,472; May 30.
Loeb, Herman, assignor to Travelight Mfg. Co., Philadelphia, Pa. Clocks and timepieces generally. Nos. 155,473–4; May 30.
McConnell, Edward, & Co., New York, N. Y. Piece goods. No. 155,475; May 30.
McKay, Chester, Brooklyn, N. Y. Blowing game. No. 155,476; May 30.
MacHatton, Ralph A., Chicago, Ill. Garters. No. 155,477; May 30.
Macy, R. H., & Co., New York, N. Y. Garters. No. 155,575; May 30.
Magnin, I., & Co., San Francisco, Calif., and New York, N. Y. Toilet cream. No. 155,478; May 30.
Mappin & Webb Limited, Sheffield and London, England. Certain articles of precious-metal ware. No. 155,479; May 30.
Marcus, Samuel M., Chicago, Ill. Medicines used as a general tonic. No. 155,576; May 30.
Marshall Field & Company, Chicago, Ill. Cambric piece goods. No. 155,480; May 30.
Marshall Field & Company, Chicago, Ill. Piece goods—namely, cotton cloth. No. 155,481; May 30.
Marshall Field & Company, Chicago, Ill. Muslin piece goods. No. 155,482; May 30.
Marshall Field & Company, Chicago, Ill. Sheets. No. 155,577; May 30.
Mathieson Alkali Works, The., New York, N. Y. Soda ash, bicarbonate and caustic sodas, bleaching powder, etc. No. 155,483; May 30.
Mayer & Loewenstein, New York, N. Y. Varnish. No. 21,949; renewed Nov. 8, 1922.
Merrimac Drug Company, Inc., New York, N. Y. Iodine therapy for infection. No. 155,484; May 30.
Metropolitan Hair Goods Co. Inc., New York, N. Y. Human-hair nets. No. 155,485; May 30.
Midwest Steel & Supply Company, Inc., New York, N. Y. Viscose. No. 155,486; May 30.
Midwest Steel & Supply Company, Inc., New York, N. Y. Viscose. No. 155,487; May 30.
Migel, J. A., Inc., New York, N. Y. Silk and satin piece goods, shirtings, sheetings, etc. No. 155,488; May 30.
Milhoan, Melvin O., Olathe, Kans. Preparations for the treatment of piles, rickets, or St, Vitus's dance, etc. No. 155,489; May 30.
Minnesota Mining & Mfg. Co., St. Paul, Minn. Abrasive paper. No. 155,490; May 30.
Moss & Lowenhaupt Cigar Co., St. Louis, Mo. Cigars, cheroots, cigarettes, smoking and chewing tobacco. No. 155,491; May 30.
Nashua Manufg. Company, Nashua, N. H. Cotton suitings. No. 155,492; May 30.
National Cloak & Suit Co., New York, N. Y. Certain notions. No. 155,496; May 30.
National Medico-Specialties Laboratories, San Francisco, Calif. Certain medicinal preparations. No. 155,493; May 30.
Neugebauer, Conrad, Columbus, Ohio. Bath mitten. No. 155,494; May 30.
New York Quebracho Extract Company, New York, N. Y. Tanning extracts. No. 155,497; May 30.
Northern Oil Company, Virginia, Minn. Gasoline. No. 155,495; May 30.
Northwestern Chemical Company, The, Wauwatosa, Wis. Certain chemicals. No. 155,498; May 30.
Odorbase Manufacturing Company, New York, N. Y. Concentrated perfumes. No. 155,578; May 30.
Ohio Match Company, The, Wadsworth, Ohio. Matches. Nos. 155,579–80; May 30.
Oppenheimer, A. E., & Brother, Philadelphia, Pa. Hair nets. No. 155,499; May 30.
Organ-Iron Company, Omaha, Nebr. Certain medicinal preparation. No. 155,500; May 30.
Pace Phonograph Corporation, New York, N. Y. Phonographs, phonograph records, player rolls. No. 155,502; May 30.
Pacific Mills, Lawrence and Boston, Mass. Cotton piece goods. No. 155,581; May 30.
Paris Manufacturing Company, The, Cleveland, Ohio. Powders, pastes, and liquids for cleaning window shades, etc. No. 155,503; May 30.
Parker, Franklin T., Columbia, S. C. Reenforced press cloth for use in oil-seed presses. No. 155,504; May 30.
Pearl Cotton Mills, Durham, N. C. Sheetings. No. 155,505; May 30.
Penberthy Injector Company, Detroit, Mich. Centrifugal and hydraulic pumps, carburetors, etc. No. 155,506; May 30.
People's Drug Stores, Inc., Washington, D. C. Cigars. No. 155,507; May 30.
Plough Chemical Company, Memphis, Tenn. Toilet preparation—viz., a face bleach. No. 155,508; May 30.
Pyrosal Company, The, Spokane, Wash. Dental paste. No. 155,509; May 30.
Raezer, George B., Lititz, Pa. Medicine for diseases of the throat and lungs. No. 155,510; May 30.
Rat Biscuit Company, The, Springfield, Ohio. Poison for rats, mice, and insects. No. 155,582; May 30.
Rechsteiner Embroidery Company, Inc., Chicago, Ill. Embroideries or embroidered articles. No. 155,511; May 30.
Reins and Meiss, Cincinnati, Ohio. Hosiery. Nos. 155,512–13; May 30.
Rinaldo, Lawrence J., Saratoga Springs, N. Y. Imitation gems. No. 155,514; May 30.
Ritz-Carlton Mineral Water Co. Inc., New York, N. Y. Carbonated and lithiated water, ginger ale, etc. No. 155,515; May 30.
Robinson-Roders Co. Inc., Newark, N. J. Certain bedding, cushions, bedsteads, upholstery, and bed springs. No. 155,516; May 30.
Rookwood Pottery Company, The, Cincinnati, Ohio. Pottery ware. Nos. 155,517–19; May 30.
Rothenberg & Co., New York, N. Y. Floor covering. No. 155,520; May 30.
Rozium Company, Atlanta, Ga. Lotion for the feet. No. 155,521; May 30.
Saphanol Products Company, Indianapolis, Ind. Germicide and antiseptic. No. 155,522; May 30
Schwarzenbach, Huber, Company, West Hoboken, N. J., and New York, N. Y. Broad silks, linens, shirtings, etc. No. 155,523; May 30.
Seaman-Patrick Paper Co., Detroit, Mich. Certain articles of stationery. No. 155,583; May 30.
Shuttles, Myra M., Dallas, Tex. Blood specific. No. 155,524; May 30.
Siegel, J., & Co., Chicago, Ill.; Detroit, Mich., and New York, N. Y., assignor to American Lady Corset Company, Detroit, Mich. Corsets. No. 20,503; renewed Dec. 29, 1921.
Silica Products Company, Tulsa, Okla. Mechanics' soap. No. 155,525; May 30.
Simons Bros. Company, Philadelphia, Pa. Certain articles of jewelry and precious-metal ware. No. 155,526; May 30.
Sinclair, John, Ltd., Newcastle-on-Tyne, England. Smoking tobacco, chewing tobacco, cigars, and cigarettes. No. 155,527; May 30.
Sitroux Importing Company, Inc., New York, N. Y. Hair nets and veils. No. 155,528; May 30.
S'Nuff Smoke Sales Co., New York, N. Y. Cigarette snuffers, ash trays, match stands, etc. No. 155,529; May 30.
Snyder, J. H., Med. Co., Jonesboro, Ark. Epsom salts, powdered borax, lump and powdered alum, etc. No. 155,530; May 30.
Societe Generale des Eaux Minerales de Vittel, Vittel, France. Natural mineral waters. Nos. 155,531–2; May 30.
Spahr, Harry M., Woodsboro, Md. Composition for the treatment of roup, colds, diphtheria, etc., among fowls. No. 155,533; May 30.
Stafford, George A., New York, N. Y. Woven cotton fabrics in the piece. No. 155,534; May 30.
Standard Red Cedar Chest Co., The, Altavista, Va. Cedar chests. No. 155,535; May 30.
Stanton, Joseph E., Montreal, Quebec, Canada. Preparation specific for epilepsy. No. 155,536; May 30.
Stearns & Foster Company, The, Lockland, Ohio. Mattresses. Nos. 155,584–8; May 30.
Sterling Sales Company, Milwaukee, Wis. Certain aluminum wares. No. 155,537; May 30.
Stevens, Annie, Gorham, Me. Medicinal preparation for epilepsy. No. 155,589; May 30.
Stickel, Edwin S., Bloomington, Ill. Poultry remedy for roup, etc. No. 155,538; May 30.
Stier, George F., Cincinnati, Ohio. Laxative. No. 155,539; May 30.
Swan & Myers Co., Indianapolis, Ind. Medicinal preparations of calcium ortho-benzyl-oxy-benzoate. No. 155,540; May 30.
Thayer, Henry, & Co. Inc., Cambridge, Mass. Soaps. No. 155,541; May 30.

Tornquist, Ernesto & Co., Limitada, Buenos Aires, Argentina. Extract of wood for tanning purposes. No. 155,542; May 30.

Town Topics Publishing Company, The, New York, N. Y. Society journal. No. 21,694; renewed Aug. 30, 1922.

Trager Manufacturing Company, Scranton, Pa. Insecticides. No. 155,543; May 30.

Travelight Mfg. Co. (See Loeb, Herman, assignor.)

Trevarrow, Phillip J., Flint, Mich. Ointment for corns. No. 155,544; May 30.

U. S. Manifold Company, Chicago, Ill. Typewriter ribbons and carbon paper. No. 155,546; May 30.

Union Allumettière Société Anonyme, Brussels, Belgium. Matches. No. 155,545; May 30.

United States Playing Card Company, The, Cincinnati, Ohio. Playing cards. No. 155,547; May 30.

Utica Bedding Factory, Inc., Utica, N. Y. Mattresses. No. 155,590; May 30.

Valmont Manufacturing Co., Inc., Brooklyn, N. Y. Powder puffs. No. 155,548; May 30.

Van Raalte Company, Inc., New York, N. Y. Veils and veilings and nettings in the piece. No. 155,549; May 30.

Vapo-Cresolene Company, The, Stanley, N. J., and New York, N. Y. Medical compounds for the cure of lung and throat diseases. No. 21,647; renewed Aug. 16, 1922.

Verguet, Comoy, St. Claude, France. Tobacco pipes and cigar and cigarette holders. No. 155,550; May 30.

Viner, Burpee E., Hartford, Conn. Certain mops, brushes, and dusters. No. 155,551; May 30.

Vitamon Corporation, The, New York, N. Y. Vitamines for use as a general tonic. No. 155,552; May 30.

Wagner's, W. T., Sons Company, The, Cincinnati, Ohio. Nonalcoholic, noncereal, maltless beverage. No. 155,554; May 30.

Wallbrunn, Kling & Co., Chicago, Ill. Children's water-color palettes. No. 155,555; May 30.

Walmar Laboratory, Oshkosh, Wis. Liquid stove cleansers. No. 155,556; May 30.

Walter, S., Inc., Philadelphia, Pa. Certain paper. No. 155,557; May 30.

Warner, William R., & Co. Inc., Wilmington, Del.; New York, N. Y., and St. Louis, Mo. Medicine in tablet form. No. 155,558; May 30.

Waterbury Company, Jersey City, N. J., and New York, N. Y. Music wire. No. 155,591; May 30.

Wellington, Sears & Company, Boston, Mass. Cotton drills. No. 155,592; May 30.

Welte, M., & Sons, Inc., Poughkeepsie and New York, assignor to Welte-Mignon Corporation, New York, N. Y. Organs, automatic organs, orchestrions. No. 155,559; May 30.

Welte-Mignon Corporation. (See Welte, M., & Sons, assignor.)

Wheatley Pottery Company, The, Cincinnati, Ohio. Pottery ware. No. 155,560; May 30.

White, J. Russell, Greenbridge, N. Y. Substances soluble in liquid hydrocarbon to modify its action as motor fuel. No. 155,561; May 30.

Whiting & Davis Company, Plainville, Mass. Mesh bags. No. 155,562; May 30.

Wilcox, M. I., Company, The, Toledo, Ohio. Paintbrushes. No. 155,563; May 30.

Wilson-Imperial Company, Newark, N. J. Washing compound. No. 155,564; May 30.

Winthrop Chemical Company, Inc., New York, N. Y. Ethyl esters of chaulmoogra oil. No. 155,565; May 30.

Wood, J. R., & Sons, New York, N. Y. Certain articles of jewelry. No. 155,566; May 30.

World Wonder Product Company, Youngstown, Ohio. Polish for automobiles, pianos, fine furniture, etc. No. 155,567; May 30.

Yankee Polish Co., New York, N. Y. Boot, shoe, and leather polishes, dressings, and oils. No. 155,568; May 30.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

Aivory Sox Co., New York, N. Y. "Aivory." (For Socks.) No. 24,393; May 30.

Barker, Moore & Mein Medicine Co., Inc., The, Philadelphia, Pa. "Barker's Roup Remedy." (For a Remedy for Roup in Poultry and Birds.) No. 24,394; May 30.

Barker, Moore & Mein Medicine Co., Inc., The, Philadelphia, Pa. "Barker's Lice Powder." (For Lice Powder for Poultry, Cows, Horses, and Hogs.) No. 24,395; May 30.

Bennett Creamery Co., The, Ottawa, Kans. "Forest Park." (For Butter.) No. 24,396; May 30.

Candy Craft, Inc., Chicago, Ill. "Fliverstick Candy." (For Candy.) No. 24,397; May 30.

Clawson & Wilson Company, Buffalo, N. Y. "Polo Brand." (For Men's and Women's Sweaters.) No. 24,398; May 30.

Detroit Packing Co., Detroit, Mich. "Deerfield Brand." (For Breakfast Sausage.) No. 24,399; May 30.

Dexter Baking Company, The, Waterbury Conn. "Dexter's Hot Cross Buns." (For Bread.) No. 24,400; May 30.

Gelfand, Simon, Baltimore, Md. "Gelfand's Combination Relish." (For Relish.) No. 24,401; May 30.

Gelfand, Simon, Baltimore, Md. "Gelfand's Olive Mayonnaise." (For Mayonnaise, a Food Dressing.) No. 24,402; May 30.

Gelfand, Simon, Baltimore, Md. "Gelfand's Combination Relish." (For Relish.) No. 24,403; May 30.

Grand View Heights Citrus Assn., Terra Bella, Calif. "Grand View." (For Oranges.) No. 24,404; May 30.

Grand View Heights Citrus Assn., Terra Bella, Calif. "Ultra." (For Oranges.) No. 24,405; May 30.

Hasselbeck Cheese Co., Buffalo, N. Y. "Buffalo Brand." (For Cheese.) No. 24,406; May 30.

Indianapolis Abattoir Company, Indianapolis, Ind. "Big Pig." (For Digester Tankage.) No. 24,407; May 30.

Johnston, R. F., Paint Company, The, Cincinnati, Ohio. "Johnston's Scotch Floor Enamel." (For Cans Containing Floor Enamel.) No. 24,408; May 30.

Kendall Products Corporation, New York, N. Y. "Ken." (For Soap.) No. 24,409; May 30.

McQuay-Norris Mfg. Co. of Indiana Inc., Connersville, Ind. "Wainwright Pistons." (For Pistons.) No. 24,411; May 30.

McQuay-Norris Mfg. Co. of Indiana, Inc., Connersville, Ind. "Wainwright Piston Pins." (For Piston Pins.) No. 24,412; May 30.

Matthaei Baking Co., Tacoma, Wash. "Sweetandgood." (For Cookies.) No. 24,410; May 30.

Miller-Parrott Baking Co., Terre Haute, Ind. "Tip-Top." (For Loaves of Bread.) No. 24,413; May 30.

Milwaukee Paper Box Company, Milwaukee, Wis. "College Days." (For Boxes Containing Candy.) No. 24,414; May 30.

Minnesota Valley Canning Co., Le Sueur, Minn. "Minnesota Valley." (For Canned Peas.) No. 24,415; May 30.

Minnesota Valley Canning Co., Le Sueur, Minn. "Artesian." (For Canned Peas.) No. 24,416; May 30.

Minnesota Valley Canning Co. "Le Sueur." (For Canned Peas.) No. 24,417; May 30.

Neofes, George H., Wheeling, W. Va. "Dove Brand Olive Oil." (For Olive Oil.) No. 24,421; May 30.

Nielsen's, Chas. J., Sons, Brooklyn, N. Y. "Sancho." (For Cigars.) No. 24,418; May 30.

Nielsen's, Chas. J., Sons, Brooklyn, N. Y. "Rossmore." (For Cigars.) No. 24,419; May 30.

Nielsen's, Chas. J., Sons, Brooklyn, N. Y. "Nielsen's Havana." (For Cigars.) No. 24,420; May 30.

Perfect System Bakeries, Oklahoma, Okla. "Perfect Bread." (For Bread.) No. 24,423; May 30.

Pflieger, A. S., & Son, Ironton, Ohio. "Walsten." (For Cigars.) No. 24,422; May 30.

Roren, Albert, New York, N. Y. "Pal-a-table." (For Grapefruit.) No. 24,424; May 30.

Schulze Baking Company, Chicago, Ill. "Bran Bread." (For Loaves of Bread.) No. 24,425; May 30.

Vincennes Milk & Ice Cream Co., Vincennes, Ind. "Tip Top Quality Moo-Kow." (For Chocolate-Coated Ice-Cream Bar.) No. 24,426; May 30.

Waxtwell Paper Company, Grand Rapids, Mich. "Treasure Loaf." (For Bread.) No. 24,427; May 30.

Wenatchee Okanogan Warehousing Co., Pateros, Wash. "Met-How." (For Apples.) No. 24,428; May 30.

Wielich, Albert, New York, N. Y. "Pyramid Malt Extract." (For Malt Extracts.) No. 24,429; May 30.

Wyandotte Olive Growers Association, Oroville, Calif. "Wyandotte." (For California Ripe Olives.) No. 24,430; May 30.

ALPHABETICAL LIST OF REGISTRANTS OF PRINTS.

Candy Craft, Inc., Chicago, Ill. "I Love My Fliverstick Candy." (For Advertising Purposes for Candy.) No. 6,131; May 30.

Cooper Underwear Company, Kenosha, Wis. "Coopers Union Suits Made by Coopers." (For Advertising Purposes for Men's, Women's, and Children's Underwear.) No. 6,132; May 30.

Haynes Automobile Company, The, Kokomo, Ind. "The New Three Passenger Haynes 55 Coupelet." (For Advertising Purposes for Automobiles.) No. 6,133; May 30.

Packard Engineering Co., The, Cleveland, Ohio. "Lovejoy Hydraulic Shock Absorbers." (For Advertising Purposes for Shock Absorbers.) Nos. 6,134–6; May 30.

Phillips-Jones Corporation, New York, N. Y. "Van Heusen the World's Smartest Collar." (For Advertising Purposes for Collars.) No. 6,137; May 30.

Phillips-Jones Corporation, New York, N. Y. "The Phillips' Cuff Shirt." (For Advertising Purposes for Shirts.) No. 6,138; May 30.

Russell Stover Company, Chicago, Ill. "Eskimo Pie." (For Advertising Purposes for Confections.) No. 6,139; May 30.

Squibb, E. R., & Sons, New York, N. Y. "The Priceless Ingredient." (For Advertising Purposes for Drugs.) No. 6,140; May 30.

Squibb, E. R., & Sons, New York, N. Y. "With Brains, Sir." (For Advertising Purposes for Drugs.) No. 6,141; May 30.

Squibb, E. R., & Sons, New York, N. Y. "Better Than Riches." (For Advertising Purposes for Drugs.) No. 6,142; May 30.

Squibb, E. R., & Sons, New York, N. Y. "The Greater Responsibility." (For Advertising Purposes for Drugs.) No. 6,143; May 30.

ALPHABETICAL LIST OF TRADE-MARK APPLICANTS.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

A/S Tuborgs Fabrikker, Hellerup, near Copenhagen, Denmark. Nonalcoholic maltless beverage. No. 158,805; May 30.

Abbott Hardware Co., New York, N. Y. Chemical preparation for cleaning, deodorizing, and disinfecting garbage cans, etc. No. 158,669; May 30.

Acheson-Harden Co., The, New York, N. Y. Handkerchiefs. No. 159,677; May 30.

Admiral Co. (See Sharp, Jerleene B.)

Akron Mattress Manufacturing Company, The, Akron, Ohio. Mattresses, box springs, bed springs, and pillows. No. 158,550; May 30.

Aktien-Gesellschaft Vereinigte Berner & Zürcher Chocolade-Fabriken Lindt & Sprüngli, Kilchberg, near Zurich, and Berne, Switzerland. Chocolate candy. No. 146,788; May 30.

Aktieselskabet de Danske Spritfabrikker, Copenhagen, Denmark. Spirituous liquors. No. 155,133; May 30.

Albex Optical Co., Reading, Pa. Ophthalmic mountings and parts thereof. No. 160,687; May 30.

American Lumberman, The, Chicago, Ill. Weekly periodical publications. No. 158,172; May 30.

American Tripoli Company, Seneca, Mo. Buffing compounds. No. 150,127; May 30.

Anstadt, C. A., doing business as The I. X. L. Drug Company, Ridgway, Pa. Cough sirup. No. 157,648; May 30.

Arrow Film Corporation, New York, N. Y. Motion pictures. No. 159,991; May 30.

Aurora Bed Spread Co. Inc., New York, N. Y. Bedspreads. No. 155,984; May 30.

Badenhausen, John P., doing business as Phillips Badenhausen, Philadelphia, Pa. Steam boilers. No. 156,348; May 30.

Badenhausen, Phillips. (See Badenhausen, John P.)

Bailey Bros., Inc., Winston-Salem, N. C. Smoking tobacco. No. 162,529; May 30.

Baker, John A., doing business as Muster-Camph Co., Minneapolis, Minn. Salve for chest colds and congestion, rheumatism, aching joints, etc. No. 157,649; May 30.

Balba Corporation of America, Toledo, Ohio. Perfume. No. 157,405; May 30.

Barnard Toy Co., The, Detroit, Mich. Toys. No. 158,282; May 30.

Bigelow, Bowditch & Company, Boston, Mass. Daily bulletin or news sheet of the prices of metals. No. 155,853; May 30.

Billstein-Feierman Co., Cleveland, Ohio. Elastics, shoe laces, pins, buttons, etc. No. 157,656; May 30.

Bird-Archer Company, The, New York, N. Y. Boiler chemicals. No. 158,598; May 30.

Blumenthal, Sidney, & Co. Inc., New York, N. Y. Pile fabrics in the piece. No. 159,832; May 30.

Blumenthal, Sidney, & Co. Inc., New York, N. Y. Pile fabrics in the piece. No. 159,834; May 30.

Blumenthal, Sidney, & Co. Inc., New York, N. Y. Pile fabrics in the piece. Nos. 159,837–9; May 30.

Bourne, Clifford N., Syracuse, N. Y. Printed books. No. 153,579; May 30.

Brady, Byron, Scranton, Pa. Child's vehicle. No. 162,098; May 30.

Bragno & Mustari, Chicago, Ill. Olive oil. No. 155,155; May 30.

Brignall, Guy E., doing business as Rex Mineral Soap Company, Aurora, Ill. Mineral soap. No. 151,304; May 30.

Bromograph A.-G. Mannheim, Mannheim, Germany. Chemicals used in photography. Nos. 156,253–4; May 30.

Brown, Rachel W., assignor to H. H. Simons, Detroit, Mich. Medicine for eczema, itching piles, dandruff, pimples, rash, etc. No. 52,307; May 30.

Carbrox Company, Inc., New Orleans, La. Decolorizing and activated carbons for decolorizing sugar solutions. No. 156,078; May 30.

Carter Dry Goods Co., Louisville, Ky. Cotton piece goods. No. 159,498; May 30.

Cavour Cigar Company, New York, N. Y. Cigars and smoking tobacco. No. 156,865; May 30.

Celestial Chemical Company. (See Cogbill, Harvey P.)

Challenge Cutlery Corporation, The, Bridgeport, Conn. Pocketknives. No. 155,016; May 30.

Cleero Company, The, Chicago, Ill. Shampoo. No. 158,602; May 30.

Cogbill, Harvey P., doing business as Celestial Chemical Company, Chicago, Ill. Face creams. No. 155,930; May 30.

Cohen, N. B., Scranton, Pa. Hair nets. No. 159,345; May 30.

Cohen, N. B., Scranton, Pa. Hair nets. No. 159,347; May 30.

Colonial Drug Co. (See Ricketts, Frank B.)

Colonial Rug Company, Waltham, Mass. Rugs made of wool and cotton and carpets. No. 153,437; May 30.

Connor, L. H., San Francisco, Calif. Hair nets. No. 155,484; May 30.

Cook, George C., doing business as The Honey Products Co., New York, N. Y. Nonalcoholic maltless beverages. No. 160,536; May 30.

Cosgrove Brothers, Inc., Milton and East Milton, Mass. Dolls. No. 161,672; May 30.

Cross, Henry H., Chicago, Ill. Gasoline, naphtha, fuel oils, kerosene, etc. No. 149,796; May 30.

Crozer, John P., doing business as Samuel A. Crozer & Son, Upland, Pa. Cotton piece goods. No. 156,960; May 30.

Crozer, Samuel A., & Son. (See Crozer, John P.)

Cupples Company Manufacturers, St. Louis, Mo. Rubber jar rings. No. 158,380; May 30.

Curlox Company. (See Krueger, Albert A.)

Davis, Sam, Indianapolis, Ind. Beverage sold as a soft drink and sirup for making the same. No. 159,957; May 30.

Davis, Wm. D., doing business as Standard Medical Company, Lansford, Pa. Ointment for the treatment of rheumatism and neuralgic pain. No. 155,670; May 30.

Dearborn Publishing Company, Dearborn, Mich. Weekly publication. No. 157,061; May 30.

Defiance Manufacturing Company, New York, N. Y. Calendars. No. 158,227; May 30.

De Nobili Cigar Co. Inc., Long Island City and New York, N. Y. Cigars. No. 159,791; May 30.

Doermann-Roehrer Co., The, Cincinnati, Ohio. Belting, hose, machinery packing, and nonmetallic tires. No. 142,246; May 30.

Dougherty, A., New York, N. Y. Playing cards. No. 160,395; May 30.

Drei Masken Verlag A.-G., Munich, Germany. Printed products—namely, journals, music, insignia, and letters. No. 156,152; May 30.

Drinkwine, Leon, Springfield, Mass. Skin preparation for eczema, varicose veins, etc. No. 154,965; May 30.

Duplan Silk Corporation, New York, N. Y. Silk piece goods. No. 153,450; May 30.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Edgar Chemical Company, The, Cleveland, Ohio. Medicines for treatment of colds and analogous diseases. No. 157,415; May 30.

Elders, H. Will, doing business as Nature's Elixir Co., St. Joseph, Mo. Proprietary medicine for use in treatment of sterility in women. No. 157,146; May 30.

Ely & Walker Dry Goods Company, St. Louis, Mo. Draperies, velours, scrims, etc. No. 155,218; May 30.

F. I. A. T., New York, N. Y. Automobiles. No. 155,433; May 30.

Fahrney, Dr. Peter, & Sons Co., Chicago, Ill. System tonic. No. 154,867; May 30.

Federal Electric Company, Chicago, Ill. Phonographs. No. 140,792; May 30.

Ferguson, John W., Company, Paterson, N. J. Reinforced concrete, brick, timber, and structural steel. No. 150,008; May 30.

Fracello Remedy Co. (See Zuray, Charles.)

Galchinsky Bros., New York, N. Y. Hair nets. No. 157,666; May 30.

Ginzkey-Maffersdorf I. Inc., New York, N. Y. Woolen blankets. Nos. 159,962–5; May 30.

Glenwood Manufacturing Co. (See Hague, Harry.)

Gould, George, doing business as The Nu-Do Process Company, New York, N. Y. Chemical food for yeast plant. No. 156,626; May 30.

Grape Ola Products Corporation, New York, N. Y. Nonalcoholic maltless beverage sold as a soft drink. No. 126,371; May 30.

Graton & Knight Manufacturing Company, The, Worcester, Mass. Lace leather and cut laces of leather. No. 119,159; May 30.

Great Northern Fur Dyeing & Dressing Co. (See Pierini, Attilio.)

Green, Frances H., doing business as Madame Polly, New York, N. Y. Peppermint astringent. No. 157,485; May 30.

Hague, Harry, trading as Glenwood Manufacturing Co., Glendale, Calif. Disinfectant. No. 157,486; May 30.

Hanscom Hardware Co., Haverhill, Mass. Snowshoes, skis, ski bindings and poles, sleds, baseballs, etc. No. 159,414; May 30.

Harris-Stephenson, De Ridder, La. Electrolyte compound. No. 158,711; May 30.

Harwell, Frank, Atlanta, Ga. Nonalcoholic, maltless beverage sold as a soft drink. No. 152,368; May 30.

Heerling, William, New York, N. Y. Chairs and tables for general use. No. 159,579; May 30.

Hershey Manufacturing Company, Denver, Colo. Locks for automobiles. No. 156,383; May 30.

Hogue, Joseph V., New York, N. Y. Golf balls. No. 160,704; May 30.

Holmac, Inc., New York, N. Y. Device for enabling a person to study and perfect himself in the game of golf. No. 162,294; May 30.

Honey Products Co., The. (See Cook, George C.)

Hood, H. P., & Sons, Inc., Boston, Mass. Carbonated soft drinks and sirups. No. 147,877; May 30.

Hoosier Desk Company, Jasper, Ind. Desks and office tables. No. 158,616; May 30.

Hudor Co., The, Buffalo, N. Y. Ginger ale, root beer, sarsaparilla, birch beer, etc. No. 158,120; May 30.

I. X. L. Drug Company, The. (See Anstadt, C. A.)

Irongland Company, San Francisco, Calif. Medicinal tonic tablet. No. 159,206; May 30.

Jönköpings Och Vulcans Tändstickfabriksaktiebolag, Jonkoping, Sweden. Matches. No. 157,275; May 30.

Jordan Marsh Company, Boston, Mass. Hair nets. No. 159,037; May 30.

Kämmer & Reinhardt A. G., Waltershausen (Gotha), Germany. Dolls and their parts. No. 162,421; May 30.

King, H. C., & Sons, Battle Creek, Mich. Seeds and grains. No. 156,582; May 30.

King, Leslie I., Columbus, Ohio. Toy banks. No. 161,320; May 30.

Kirk, James S., & Company, Chicago, Ill. Toilet, bath, and laundry soap. No. 119,073; May 30.

Koppers Company, The, Pittsburgh, Pa. Coke. No. 157,490; May 30.

Krueger, Albert A., doing business as Curlox Company, St. Louis, Mo. Hair shampoo. No. 158,621; May 30.

Laabs, Georg, Schönhausen a. Elbe, Germany. Ointment for the treatment of acute and chronic dartre, sycosis, etc. No. 158,988; May 30.

Lady Nic Inc., New York, N. Y. Cigarettes. No. 158,049; May 30.

Langley & Michaels Co., San Francisco, Calif. Massage alcohol. No. 158,716; May 30.

Langley & Michaels Co., San Francisco, Calif. Rubbing alcohol. No. 158,717; May 30.

Leon Maurice Laboratories, Montgomery, Ala. Eczema remedy, face lotion, face powders, perfumes, and salves used in the treatment of eczema, etc. No. 142,563; May 30.

Levy Shulman and Co., Inc., New York, N. Y. Ladies' and misses' dresses. No. 156,605; May 30.

Lewis, Henrietta, Chicago, Ill. Face creams. No. 156,536; May 30.

Lewis, R. Milton, Company, Detroit, Mich. Medicines for the treatment of tuberculosis. No. 152,513; May 30.

Lindsey, Walter, Toronto, Ontario, Canada. Blood and nerve tonic in tablet form. No. 139,167; May 30.

Louis, Otto F., Bay City, Mich. Poultices and plasters for the treatment of boils, burns, etc. No. 157,155; May 30.

McCrosky Bros., Oakland, Calif. Doll heads. No. 140,192; May 30.

McKee Glass Company, Jeannette, Pa. Glass baking vessels. No. 150,625; May 30.

McKee Glass Company, Jeannette, Pa. Glass baking vessels. No. 150,907; May 30.

Mahoning Foundry Co., The, Youngstown, Ohio. Coal, wood, gas, and oil furnaces and stoves. No. 143,827; May 30.

Mallinson, H. R., & Co. Inc., New York, N. Y. Silk piece goods. No. 159,804; May 30.

Metcalfe, C. G., Georgiana, Ala. Medicine for the treatment of headache and neuralgia, for pains in la grippe, etc. No. 146,267; May 30.

Midwest Steel & Supply Company, Inc., New York, N. Y. Timber-joint plates. No. 160,501; May 30.

Milwaukee-Waukesha Brewing Company, Waukesha, Wis. Maltless cereal sirup for beverages. No. 138,915; May 30.

Milwaukee-Waukesha Brewing Company, Waukesha, Wis. Malt sirup for beverages. No. 138,916; May 30.

Minot, Hooper & Co., New York, N. Y. Cotton piece goods. No. 158,483; May 30.

Mueller, L. J., Furnace Co., Milwaukee, Wis. Hot-air furnaces. No. 142,355; May 30.

Müller, Hermann, Halle/Saale, Germany. Razors, knives, scissors, etc. No. 155,443; May 30.

Muster-Camph Co. (See Baker, John A.)

Nash Hardware Company, Fort Worth, Tex. Liquid-fuel or oil and gas heaters and cookstoves. No. 157,433; May 30.

Nature's Elixir Co. (See Elders, H. Will.)

Nazareth Waist Co., Nazareth, Pa. Waist union suits, union suits, undershirts, and drawers. No. 151,371; May 30.

Non-Breakable Button Corporation of America, Milwaukee, Wis. Nonbreakable buttons for clothing. No. 156,106; May 30.

Nu-do Process Company, The. (See Gould, George.)

Nunner and Ashton Company, The, Cincinnati, Ohio. Household and office furniture, plain and upholstered. No. 130,335; May 30.

Nuradium Company, Chicago, Ill. Restorative and constructive tonic remedy. No. 158,021; May 30.

Odorono Company, The, Cincinnati, Ohio. Depilatories. No. 142,717; May 30.

Olsen, Julius H. T., New York, N. Y. Shoe polish. No. 156,235; May 30.

Parrish, Harry A., doing business as The Pyramid Products Co., Berkeley, Calif. Scalp tonic. No. 151,887; May 30.

Philo Hay Company, The, Newark, N. J. Tonic for use in cases of nervous exhaustion, weakened vitality, etc. No. 158,644; May 30.

Pierini, Attilio, doing business as The Great Northern Fur Dyeing & Dressing Co. Furs dyed to resemble nutria. No. 143,832; May 30.

Piroxloid Products Corporation, New York, N. Y. Games. No. 155,445; May 30.

Polly, Madame. (See Green, Frances H.)

Progressive Knitting Works, Inc., Brooklyn, N. Y. Silk, wool, and cotton fabrics knitted in the piece. No. 145,794; May 30.

Pure Oil Company, The, Columbus, Ohio. Dry cleaner. No 146,033; May 30.

Pyramid Products Co., The. (See Parrish, Harry A.)

Rat Biscuit Company, The, Springfield, Ohio. Rat, mice, and insect poison. No. 156 598; May 30.

Reese, J. L., Inc., Albany, N. Y. Maltless flavoring sirups used in the preparation of soft drinks. No. 144,787; May 30.

Reid, Murdoch & Co., Chicago, Ill. Cigars. No. 156,803; May 30.

Reid, Murdoch & Co., Chicago, Ill. Cigars. No. 156,805; May 30.

Reliance Metal Spinning & Stamping Co. Inc., Brooklyn, N. Y. Ash receivers and trays. No. 158,150; May 30.

Rex Mineral Soap Company. (See Brignall, Guy E.)

Ricketts, Frank B., doing business as Colonial Drug Co., Tulsa, Okla. Remedy for sick headache, dyspepsia, constipation, biliousness, etc. No. 137,542; May 30.

Rockwell-Barnes Company, Chicago, Ill. Adding machine rolls, clip boards, hat checks, memorandum books, etc. No. 156,808; May 30.

Rosebud Mfg. Co., New York, N. Y. Dresses, petticoats, blouses, shirt waists and aprons. No. 156,751; May 30.

Sall Mountain Company, Chicago, Ill. Asbestos pipe covering. No. 158,261; May 30.

Samstag & Hilder Bros., New York, N. Y. Scissors. No. 150,780; May 30.

San Antonio Drug Co., San Antonio, Tex. Waxed, wrapping, crêpe, tissue, and toilet paper. No. 142,423; May 30.

Schloss Manufacturing Co., San Francisco, Calif. Fruit-jar rings. No. 160,262; May 30.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Sharp, Jerleene B., doing business as Admiral Co., Los Angeles, Calif. Hair restorer. No. 150,782; May 30.

Simons, Henry H. (See Brown, Rachel W., assignor.)

Sitroux Importing Company, Inc., New York, N. Y. Hair nets. No. 158,584; May 30.

Société P. & A. Picard, Paris, France. Steel mortise and rim locks. No. 158,582; May 30.

Sopshin, Max, doing business as Split Rock Bottling Works, Mount Vernon, N. Y. Nonalcoholic, maltless, celery tonic beverage. No. 161,510; May 30.

Split Rock Bottling Works. (See Sopshin, Max.)

Standard Bottling Company, Limited, Medicine Hat, Alberta, Canada. Nonalcohol maltless beverage and sirups and extracts for making same. No. 156,809; May 30.

Standard Comb Company, Leominster, Mass. Combs, pendants, hair ornaments, and bag frames of celluloid. No. 136,609; May 30.

Standard Medical Company. (See Davis, Wm. D.)

Star Dust Products Corporation, New York, N. Y. Cleansing and polishing material. No. 156,111; May 30.

Sun-Herald Corporation, The, New York, N. Y. Cartoon serials. No. 157,905; May 30.

Sussfeld, Lorsch & Schimmel, New York, N. Y. Condensing lenses used in motion-picture, spotlight, stereopticon, and photographic apparatus. No. 160,211; May 30.

Theocaridis, Homer, New York, N. Y. Cigarettes. No. 160,214; May 30.

Tisgood Products, Inc., St. Louis, Mo. Olives, fruit jelly, fruit jam, apple butter, etc. No. 148,185; May 30.

Tremont & Suffolk Mills, Lowell, Mass. Gray cotton blankets. No. 159,733; May 30.

"Turmac" Turkish-Macedonian Tobacco Co., Arnheim, Netherlands. Smoking and chewing tobacco, cigars, cigarettes, and snuff. Nos. 159,227–8; May 30.

Turner, Nellie F., New York, N. Y. Cigarettes. No. 160,372; May 30.

United States Playing Card Company, The, Cincinnati, Ohio. Playing cards. No. 161,020; May 30.

Vereinigte Chininfabriken Zimmer & Co. Gesellschaft mit beschränkter Haftung, Frankfort-on-the-Main, Germany. Bactericide and antiseptic preparations. Nos. 152,525–6; May 30.

Virden Packing Company, Oakland, Calif. Canned fruits and vegetables. No. 154,900; May 30.

Vital Sanando Co., Inc., The, New York, N. Y. Liquid for dissolving and removing gallstones without pain. No. 157,501; May 30.

Vital Sanando Co., Inc., The, New York, N. Y. Liquid for liver, stomach, and bowel troubles. No. 157,502; May 30.

Vogt Brothers Mfg. Co., Louisville, Ky. Stokers used in connection with steam boilers. No. 159,773; May 30.

Wanamaker, John, New York, New York, N. Y. Golf balls. No. 150,716; May 30.

Weaver, Walter T., Highlands, N. Y. Fresh fruits put up in barrels, boxes, and crates. No. 155,981; May 30.

Weber Lifelike Fly Co., The, Stevens Point, Wis. Artificial fishing baits. No. 159,069; May 30.

Weichsel Laboratories, Dallas, Tex. Chemical preparation for application on face and designed to remove wrinkles and increase the blood circulation. No. 156,428; May 30.

Whitman Shoe Polish Mfg. Co., Whitman, Mass. Shoe polish. No. 151,741; May 30.

Wiener & Bieber, San Francisco, Calif. Candies. No. 152,147; May 30.

Winthrop Chemical Company, Inc., New York, N. Y. Preparations used in the treatment of the following diseases: Chlorosis, anæmia, skin diseases, malaria, etc. No. 158,547; May 30.

Wright, George D., Corporation, Dover, Del., and New York, N. Y. Dyes. No. 158,741; May 30.

Yeast Tablet Co., The, South Bend, Ind. Food tonic containing vitamines of yeast. No. 158,512; May 30.

Zuray, Charles, doing business as Fracello Remedy Co., Chicago, Ill. Medicines—to wit, cough sirup, liniment, fracello oil, ointment. No. 150,884; May 30.

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED ON THE 30TH DAY OF MAY, 1922.

NOTE.—Arranged in accordance with the first significant character or word of the name. (In accordance with city and telephone directory practice.)

Abrasive and polishing tools. Mandrel for. H. F. Stempel, Jr. No. 1,417,584; May 30.
Advertisement distributor. A. Coley and A. W. Marler. No. 1,417,500; May 30.
Advertising device. A. O. Mickelson. No. 1,418,157; May 30.
Aerating and mixing device. H. S. Beers. No. 1,417,883; May 30.
Aerial tramway grip. E. H. Sackett. No. 1,417,572; May 30.
Aeronaut's safety attachment. W. Haniuk. No. 1,417,991; May 30.
Aeroplane. A. J. Bernier. No. 1,417,884; May 30.
Aeroplane and helicopter. J. T. Fulcher. No. 1,418,248; May 30.
Aeroplane engines, Starting device for. R. T. Foster. No. 1,417,508; May 30.
Aeroplanes, Wing-spar construction for. O. T. Belcher. No. 1,417,657; May 30.
Agricultural implement. C. J. Allen and J. Mader. No. 1,418,049; May 30.
Agricultural implement. A. Axelton. No. 1,418,123; May 30.
Agricultural machine. W. H. Kemper. No. 1,417,999; May 30.
Agricultural tool. G. L. Hembree. No. 1,417,901; May 30.
Air-brake system. W. H. Souther. No. 1,418,210; May 30.
Air compressor. M. Riesner. No. 1,417,571; May 30.
Aircraft, Motive-power system for. G. H. Curtiss. No. 1,418,131; May 30.
Aircraft structure. J. V. Martin. No. 1,418,008; May 30.
Alarm: *See*—
Auto burglar alarm. Automobile alarm.
Amalgamator. H. Loeven. No. 1,418,006; May 30.
Amusement device. S. Liuni. No. 1,417,754; May 30.
Amusement device. J. M. Realing. No. 1,417,566; May 30.
Amusement device. H. N. Ridgway. No. 1,417,570; May 30.
Anthraquinone derivatives and making same. K. Wilke. No. 1,417,875; May 30.
Antiskidding device. W. H. Pendleton. No. 1,417,560; May 30.
Aqueous and other vapors from fluids and solids and for preparing dilute sulphuric acid, Separating. O. Maass. No. 1,417,618; May 30.
Arch support. J. Abramowitz. No. 1,418,048; May 30.
Arch support. L. Gutmann. No. 1,417,600; May 30.
Artillery. Axle spade for mobile. N. Kock. No. 1,417,923; May 30.
Ashes washer, Furnace-. H. M. Webster. No. 1,417,645; May 30.
Auger bit. E. T. McPherson. No. 1,417,760; My 30.
Auto burglar alarm. D. B. Sheller. No. 1,418,177; May 30.
Automatic lock. S. Izzo. No. 1,417,529; May 30.
Automobile alarm. S. L. Thompson. No. 1,417,700; May 30.
Automobile lock. S. H. Dorsey. No. 1,417,661; May 30.
Automobile lock. O. S. Hershey. No. 1,417,603; May 30.
Automobile or side tops, Gypsy or side curtain for. S. G. Spurling. No. 1,417,866; May 30.
Automobile radiator. R. R. Swaney. No. 1,417,783; May 30.
Automobile starting device. J. F. Collins. No. 1,418,068; May 30.
Automobile wheel attachment. W. H. Green. No. 1,417,821; May 30.
Automobiles, Lighting system for. E. C. Ballman. No. 1,418,051; May 30.
Automobiles, Shock absorber for. T. A. Studdard. No. 1,418,105; May 30.
Automobiles, Speed-change tractor attachment for. A. E. Cook and T. Van Tuyl. No. 1,417,798; May 30.
Automobiles, Storm protector for windshields of. J. R. Ayotte. No. 1,418,121; May 30.
Automobiles, Transmission band for. A. S. Voight. No. 1,417,870; May 30.
Awning box. D. Froehlich. No. 1,418,247; May 30.
Axle mounting, Oscillating. A. E. Cook and T. Van Tuyl. No. 1,417,800; May 30.
Bag: *See*—
Shopper's bag.
Ball, Golf. J. White. No. 1,418,220; May 30.
Ball rack. E. Hedenskoog. No. 1,418,075; May 30.
Band brake, Attachable. H. Altergott. No. 1,417,880; May 30.
Barrel, Sheet-metal. J. W. McNeil. No. 1,417,617; May 30.
Baseball target. E. C. Shears. No. 1,418,207; May 30.
Battery. D. Rosen. No. 1,417,692; May 30.
Bead threader. W. W. Bolls. No. 1,417,713; May 30.
Beater. G. J. Fitzpatrick. No. 1,417,982; May 30.
Bed, Automobile. F. B. Cosper. No. 1,417,802; May 30.
Bed, Wall. M. F. Bayer. No. 1,418,054; May 30.
Bedstead for invalids, Adjustable. C. S. Woods. No. 1,417,654; May 30.
Beehive. T. K. Massie. No. 1,417,623; May 30.
Belt link and key-ring holder, Combined. J. Jackson. No. 1,417,996; May 30.
Bit: *See*—
Auger bit.
Bituminous composition and making same, Colored. L. Kirschbraun. No. 1,417,838; May 30.
Block: *See*—
Building block.
Blowpipe. E. Fouché. No. 1,418,245; May 30.
Blowpipe. E. L. Ragonnet. No. 1,417,628; May 30.
Board: *See*—
Fiber board.
Boiler for traction use and other uses, High-pressure. T. J. McDonald. No. 1,417,615; May 30.
Boilers, Apparatus for washing out and refilling. S. Otis. No. 1,418,092; May 30.
Bolt: *See*—
Door bolt.
Boot, Knee. J. D. Keller. No. 1,417,742; May 30.
Boot or shoe. J. H. Jacobs. No. 1,418,188; May 30.
Bottle-capping machine. G. E. Whitney. No. 1,417,874; May 30.
Bottle filling and capping machine. E. C. Fogle. No. 1,418,146; May 30.
Bottle-filling machine. T. E. Pennock. No. 1,418,203; May 30.
Bottle receptacle and mail box, Combination milk-. J. Panik and S. Clebo. No. 1,418,200; May 30.
Bottle stopper. C. F. Thatcher. No. 1,418,035; May 30.
Bow. G. C. Welter. No. 1,418,218; May 30.
Box: *See*—
Awning box. Sound box.
Covered box. Type box.
Metal box.
Box construction. C. R. Shafer. No. 1,417,776; May 30.
Bracket: *See*—
Manifold bracket.
Brake: *See*—
Band brake.
Brake means. W. K. Porter. No. 1,418,167; May 30.
Bread server. C. Lorber. No. 1,418,153; May 30.
Brick hacking, Method and means for. J. B. Ladd. No. 1,418,003; May 30.
Bridge span, Reenforced. R. Modjeski. No. 1,417,936; May 30.
Broom press. W. P. Orr. No. 1,418,018; May 30.
Broom trimmer. G. W. Duvall and N. H. Beebe. No. 1,418,138; May 30.
Brush, Bath. S. C. Pearson. No. 1,418,019; May 30.
Brushing and polishing machine. S. Radimak. No. 1,417,768; May 30.
Buckle, Belt. C. S. Oda. No. 1,417,855; May 30.
Bucket-loading hook. J. W. Larson. No. 1,418,004; May 30.
Building block. F. Patee. No. 1,418,160; May 30.
Building block. E. Preston. No. 1,418,168; May 30.
Bumper. W. A. Bockius. No. 1,417,712; May 30.
Bungalow, Movable. E. C. Heygate. No. 1,417,736; May 30.
Buoy for boats, Outboard. G. Haack. No. 1,417,824; May 30.
Burner: *See*—
Fuel-oil burner. Oil burner.
Burners, Gas and air regulating device for incandescent-mantle. O. P. Cramer. No. 1,418,237; May 30.
Button. F. R. White. No. 1,417,646; May 30.
Cable hitch, Spring. D. L. Lindquist. No. 1,418,089; May 30.
Calculating machine. R. G. C. Boa. No. 1,418,062; May 30.
Calculating machine. J. C. Wahl. Nos. 1,418,110–1; May 30.

Calf feeder, Automatic. M. Neumann. No. 1,417,554; May 30.
Camera and tripod, Motion-picture. A. S. Howell. No. 1,417,523; May 30.
Camera-lens mount. A. S. Howell. No. 1,417,526; May 30.
Camera lenses, Focusing device for. A. S. Howell. No. 1,417,527; May 20.
Cameras, Actuating mechanism for motion-picture. A. S. Howell. No. 1,417,525; May 30.
Cameras, Film-feeding mechanism for motion-picture. A. S. Howell. No. 1,417,524; May 30.
Camp table, Folding. B. B. Dudley. No. 1,417,891; May 30.
Can: *See*—
Gasoline can.
Car-door-locking mechanism. A. Campbell. Nos. 1,417,494–5; May 30.
Car, Electric trolley. C. H. Copley. No. 1,417,502; May 30.
Car-lighting system. G. F. Smith. No. 1,417,696; May 30.
Car, Mining. W. Kirchman. No. 1,417,834; May 30.
Cars, Roof construction for freight. P. Salata. No. 1,417,573; May 30.
Carburetor. W. H. Collier. No. 1,417,501; May 30.
Carburetor. H. B. Simmons. No. 1,418,100; May 30.
Carbonator and dispensing barrel, Combination. A. B. Green. 1,418,072; May 30.
Carburetors, Air-inlet-control device for. V. R. Heftler. No. 1,418,259; May 30.
Cards, Playing. M. B. Reach. No. 1,418,020; May 30.
Carpet beater. E. H. Stoner. No. 1,418,179; May 30.
Carriage, Folding baby. G. Forde. No. 1,418,243; May 30.
Carrier: *See*—
Golf-club carrier. Wheel carrier.
Carrier for handling frames and the like, Elevated. W. E. Irish and A. K. Nowak. No. 1,417,528; May 30.
Case: *See*—
Key case. Shipping case.
Cask cover. A. Leesekamp. No. 1,417,845; May 30.
Casket, Burial. F. J. Leo. No. 1,417,534; May 30.
Caster, Adjustable. D. L. Sterner. No. 1,417,640; May 30.
Casting apparatus. T. A. Horton. No. 1,418,078; May 30.
Casting hot liquid material, Process and apparatus for. J. L. Mauch. No. 1,417,542; May 30.
Casting steel wheels, Apparatus for. G. Walther. No. 1,417,959; May 30.
Castings, Controlling the condition of. O. Sowers. No. 1,417,638; May 30.
Centrifugal separator. E. G. Pearson. No. 1,417,558; May 30.
Chair base. T. W. Foote. No. 1,417,816; May 30.
Check-holder and punch. T. R. F. Potter. No. 1,417,564; May 30.
Check or account book. J. L. Davis. No. 1,417,977; May 30.
Check, Picker-stick. W. M. Patterson. No. 1,417,557; May 30.
Cheese mold. S. Fieldman. No. 1,418,242; May 30.
Chemical and physical operations, Apparatus for use in connection with. A. T. Stuart and G. N. Middleton. No. 1,417,585; May 30.
Chopper: *See*—
Cotton chopper.
Chuck. G. A. Englund. No. 1,417,981; May 30.
Chute-gate-operating mechanism. I. D. Landis. No. 1,417,611; May 30.
Cigar wrappings, Structure for operating upon. A. E. Maspons. No. 1,417,933; May 30.
Cinema and analogous projection apparatus. M. Delume. No. 1,417,807; May 30.
Clamp: *See*—
Rail clamp. Rim clamp.
Clasp: *See*—
Dental clasp.
Clock, Electric. P. Mansel. No. 1,417,620; May 30.
Clod crusher. C. C. Hood. No. 1,418,260; May 30.
Closure. P. Pappas. No. 1,418,201; May 30.
Cloth drill. W. Gorr. No. 1,417,665; May 30.
Cloth finishing and product thereof. F. W. Tully. No. 1,417,587; May 30.
Cloth piling machine. D. G. Norton and A. Durot. No. 1,418,199; May 30.
Clothes wringers, Gearing attachment for. E. Arthurs. No. 1,418,224; May 30.
Clothespin. J. B. Marshall. No. 1,417,850; May 30.
Clutch control, Extension. H. S. Myers. No. 1,418,265; May 30.
Coach and sleeper, Convertible day. J. W. Covington. No. 1,417,719; May 30.
Cock, Stop. C. H. Wise. No. 1,418,118; May 30.
Coin-controlled lock. D. C. Morgan. No. 1,418,091; May 30.
Combination lock. L. E. Sheets. No. 1,418,176; May 30.
Combination lock. J. M. Zweiman. No. 1,417,789; May 30.
Compressor unit, Vertical. F. W. Parsons. No. 1,418,202; May 30.
Computing machine. A. Koronski. No. 1,417,924; May 30.
Concentrator. G. A. Overstrom. No. 1,417,681; May 30.
Concrete building construction. C. G. Muench. No. 1,417,553; May 30.
Concrete-post mold. E. B. Tyler. No. 1,417,644; May 30.
Condenser system. J. F. Grace. No. 1,417,515; May 30.
Connecting rod. H. B. Layman. Nos. 1,418,083–6; May 30.
Connecting rods, Manufacturing sheet-metal. H. B. Layman. No. 1,418,087; May 30.
Contact bodies and ignition points, Alloy and preparation of the same for. C. A. Laise. No. 1,418,081; May 30.
Containers, Sealing. F. Westerbeck. No. 1,418,114; May 30.
Control system, Motor-. E. S. Lammers, Jr. No. 1,417,750; May 30.
Control, System of. R. E. Hellmund. Nos. 1,417,733–4; May 30.
Converter hood. C. Van Amburgh. No. 1,417,588; May 30.
Converter plant. A. G. McGregor. No. 1,417,538; May 30.
Conveyer rollers, Cast-metal-end. R. S. Logan. No. 1,418,152; May 30.
Conveyers, Work holder for endless. E. K. Van Buskirk. No. 1,418,185; May 30.
Copyholder. L. A. Mochel. No. 1,417,762; May 30.
Core-making machine. O. Skeppstedt. No. 1,417,577; May 30.
Cotter pins, Device for manipulating. D. R. Tanner. No. 1,417,868; May 30.
Cotton chopper. J. T. Odell. No. 1,418,159; May 30.
Cotton, Conveying and cleaning mechanism for. L. C. Stukenborg. No. 1,417,782; May 30.
Cotton gin. E. R. Tischer. No. 1,418,106; May 30.
Couch, Extension. M. F. Bayer. No. 1,418,055; May 30.
Coupling-operating mechanism. E. George, Jr. No. 1,417,598; May 30.
Covered box. A. J. Matter. No. 1,418,090; May 30.
Crate. H. G. Orth. No. 1,417,555; May 30.
Crusher: *See*—
Clod crusher.
Culinary vessel. T. D. C. Smith. No. 1,417,582; May 30.
Cultivator. H. H. Piper. No. 1,418,164; May 30.
Cultivator. C. Putkowski. No. 1,417,942; May 30.
Cultivator and planter, Hand-steered, wheeled, convertible. M. Hudgens. No. 1,418,262; May 30.
Cultivator, Rotary-disk. H. W. Campbell. No. 1,417,971; May 30.
Cultivators, Spring tooth for. A. W. Reynolds. No. 1,418,173; May 30.
Currents, Discharge-tube relay for undulatory. E. Reisz. No. 1,418,022; May 30
Currents of low voltage into direct currents of high voltage, Apparatus for converting direct. E. Reisz. No. 1,418,023; May 30.
Curtains, Frame for motor-car. W. Hertel. No. 1,417,994; May 30.
Curves, Device for indicating. W. Waffenschmidt. No. 1,417,703; May 30.
Cutting machine. F. Baumann, Jr. No. 1,418,053; May 30.
Cutting machine. F. M. Joslin. No. 1,417,830; May 30.
Cutting machine. F. M. Peters and W. H. Hungerford. No. 1,417,562; May 30.
Cyanides, Producing. F. Van Bichowsky and J. Harthan. No. 1,417,702; May 30.
Cylinder, Steam. G. R. Huff. No. 1,418,079; May 30.
Cylinders, Means for preventing vibration of printing-press. H. A. W. Wood. No. 1,417,652; May 30.
Dental clasp. H. Aderer. No. 1,417,879; May 30.
Dental flask. J. J. Mount. No. 1,417,938; May 30.
Dental floss holder. G. C. Henerlau. No. 1,417,518; May 30.
Dental tool. F. L. MacDonald. No. 1,417,848; May 30.
Derrick, Guy. J. R. Gill. No. 1,417,728; May 30.
Diaphragm. A. F. R. Cotton. No. 1,417,718; May 30.
Dies for making return bends. G. E. Ryder. No. 1,417,944; May 30.
Digger: *See*—
Grass digger.
Digging machine. G. A. Vaughn and C. E. Stahl. No. 1,418,109; May 30.
Direction signal. W. R. Tonkin. No. 1,418,036; May 30.
Display case for small articles. N. H. Fairweather. No. 1,417,814; May 30.
Display stand for discharge certificates. C. L. Householder. No. 1,418,261; May 30.
Documents capable of detection, Means for rendering the alteration of. V. E. Goodman. No. 1,417,820; May 30.
Doll. W. P. Dun Lany. No. 1,417,810; May 30.
Doll. A. H. Hornsby. No. 1,417,915; May 30.
Door bolt. P. H. Ferrier, Jr., No. 1,418,143; May 30.
Door-handling mechanism. W. E. Boyer. No. 1,417,714; May 30.
Drag, Road. G. G. Bayne. No. 1,417,882; May 30.
Drawing presses, Tension indicator for. R. S. Smith. No. 1,417,579; May 30.
Drier. F. A. Martoccio. No. 1,418,010; May 30.
Drill: *See*—
Cloth drill.
Drill-feeding mechanism. H. C. Johansen. No. 1,418,080; May 30.
Driver, Automatic. F. A. Middleton. No. 1,417,624; May 30.
Driving mechanism. C. C. Schmand. No. 1,417,862; May 30.
Driving wheel, Detachable. A. E. Cook and T. Van Tuyl. No. 1,417,795; May 30.
Dyeing. H. Toepfer. No. 1,417,869; May 30.
Dyeing machine. E. S. Halter. No. 1,417,825; May 30.
Edible product and making same. C. Ellis. No. 1,417,893; May 30.
Educational device. H. Hirsch. No. 1,417,828; May 30.
Eggs, Means for use in poaching. E. S. Musgrave. No. 1,417,679; May 30.

Electric candle and the like. C. J. Klein. No. 1,417,532; May 30.
Electric currents, Apparatus for generating high-frequency. A. Heyland. No. 1,417,913; May 30.
Electric-fixture-display device. C. K. Theobald. No. 1,418,215; May 30.
Electric furnace. F. Tharaldsen. No. 1,417,953; May 30.
Electric switch. E. A. Kuen. No. 1,417,925; May 30.
Electric switch. M. Vogelsang. No. 1,417,957; May 30.
Electric switch, Combination. A. J. Gardenhour. No. 1,417,898; May 30.
Electrical distribution, System of. E. C. Ballman. No. 1,417,710; May 30.
Electrical water heater. H. Mehn. No. 1,418,011; May 30.
Electrically-heated furnace. C. W. Speirs. No. 1,418,030; May 30.
Electrodeposition of metals upon iron and alloys of iron. R. J. Fletcher. No. 1,417,896; May 30.
Electrotyping-case polisher. O. D. Harden. No. 1,418,074; May 30.
Elevator. J. M. Whalbe. No. 1,417,873; May 30.
Emulsion, Making. L. Kirschbraun. No. 1,417,835; May 30.
Engine: *See*—
Gas-engine. Internal-combustion engine.
Engines, Device for charging internal-combustion. L. Atwood. No. 1,417,483; May 30.
Engines, Injector for steam. C. A. Nash. No. 1,417,853; May 30.
Engines, Lubricating device for gas. R. J. Broege. No. 1,417,659; May 30.
Engines, Method and apparatus for obtaining work in internal-combustion. J. G. Prosser. No. 1,417,859; May 30.
Engines, Process and apparatus for fuel injection in internal-combustion. L. A. Charles. No. 1,418,232; May 30.
Engines, Sled for donkey. G. W. Ives. No. 1,417,740; May 30.
Engines, Sparking plug for internal-combustion. J. Martinez. No. 1,418,009; May 30.
Envelope-sealing device. E. H. Foote. No. 1,417,897; May 30.
Envelopes, Fastener for. L. Arntz. No. 1,417,790; May 30.
Etching compound, Metal-. H. C. Gleockler. No. 1,418,253; May 30.
Evaporating pan. C. E. Rogers. No. 1,417,943; May 30.
Eyeglass-temple holder. F. Radcliffe. No. 1,418,170; May 30.
Eyepiece prism. F. E. Wright. No. 1,417,962; May 30.
Facing machine, Clay-product-. W. E. Wilson. No. 1,417,788; May 30.
Fan. I. J. Ponstein. No. 1,418,165; May 30.
Feeder, Automatic. A. Johnson. No. 1,417,741; May 30.
Feeding apparatus. J. W. Barwell, J. Ward, N. Nelson, J. Hingher, W. E. Booth, and W. L. Blows. No. 1,418,267; May 30.
Felt, Saturating. L. Kirschbraun. No. 1,417,841; May 30.
Fertilizer-distributing machine. W. Printz. No. 1,418,169; May 30.
Fiber board, Indented. C. G. Muench. No. 1,417,552; May 30.
Fibrous compositions, Treating saturated. L. Kirschbraun. No. 1,417,840; May 30.
Fibrous materials, Treating. D. E. De Lape. No. 1,417,889; May 30.
Fibrous sheet material, Reducing. M. F. Williams. No. 1,417,961; May 30.
Fire extinguisher. G. T. Pearsons. No. 1,417,559; May 30.
Firearm, Automatic. J. J. Reifgraber. No. 1,418,021; May 30.
Fires, Means for preventing oil-tank. R. E. Johnston. No. 1,417,605; May 30.
Fish bait, Artificial. W. Schmid. No. 1,417,574; May 30.
Fishhook. J. O. Aspelin. No. 1,417,482; May 30.
Fish lure. G. T. Buddle. No. 1,418,229; May 30.
Fish stringer. T. B. McNiece. No. 1,417,759; May 30.
Fishing reel. S. G. Russell. No. 1,417,632; May 30.
Fishing tool. R. V. McMullen. No. 1,417,616; May 30.
Fishing tool. C. Strand. No. 1,418,212; May 30.
Fishline reel. W. Schmid. No. 1,417,633; May 30.
Flask: *See*—
Dental flask.
Flotation apparatus. A. W. Fahrenwald. No. 1,417,895; May 30.
Fluid mixer. H. G. Levy. No. 1,417,927; May 30.
Flying machine. A. P. Hedberg. No. 1,417,602; May 30.
Fonting apparatus. L. B. and M. F. Benton. No. 1,418,057; May 30.
Food machine. J. and H. Trust. Nos. 1,418,107–8; May 30.
Foot support. L. Gutmann. No. 1,417,989; May 30.
Fountain and the like, Coating. A. C. V. Malm. No. 1,417,931; May 30.
Friction facing. F. C. Stanley. No. 1,417,779; May 30.
Friction facings, Making. F. C. Stanley. No. 1,417,778; May 30.
Fruit-cutting apparatus. J. A. Gray. No. 1,417,666; May 30.
Fuel agitation. H. F. Smith. No. 1,417,637; May 30.
Fuel-oil burner. A. J. Fuetter. No. 1,417,819; May 30.
Furnace: *See*—
Electric furnace. Hot-air furnace.
Electrically-heated furnace.
Furnace. H. Johnson. No. 1,417,829; May 30.
Furnaces, Observation window for. M. Curry and S. H. Barnum. No. 1,417,976; May 30.
Fuse, Renewable cartridge. T. A. Both. No. 1,417,966; May 30.
Game. T. J. Sylvester; No. 1,418,214; May 30.
Garment pattern. J. Latimore. No. 1,417,612; May 30.
Gas engine. T. W. Hainline. No. 1,417,730; May 30.
Gas engine. J. E. Smith. No. 1,418,209; May 30.
Gas generator. C. J. and G. J. Clefton. No. 1,417,974; May 30.
Gas generator. S. Moore. No. 1,418,158; May 30.
Gas generator and burner. J. A. Kenworthy. No. 1,417,745; May 30.
Gas meter. G. K. V. Johanson. No. 1,417,998; May 30.
Gas shut-off, Automatic safety. I. B. Laskowitz. No. 1,418,082; May 30.
Gases, Treating. J. C. W. Frazer. No. 1,418,246; May 30.
Gasoline can, Emergency. E. C. Staples and H. H. Dean. No. 1,417,951; May 30.
Gate-hinge construction. R. McLaughlin. No. 1,417,758; May 30.
Gauge: *See*—
Outage gauge.
Gear, Speed-changing. A. E. Cook and T. Van Tuyl. No. 1,417,797; May 30.
Generator: *See*—
Gas generator. Power generator.
Glass from a molten mass, Apparatus for gathering. A. C. Pilkington and J. Gaskell. No. 1,417,684; May 30.
Globes, Holder for. B. Newland. No. 1,417,939; May 30.
Glove. J. A. Smith. No. 1,418,103; May 30.
Gold-leaf character and preparing the same. Indestructable. A. Devore. No. 1,417,596; May 30.
Golf club. S. Tousey. Nos. 1,418,038–9; May 30.
Golf-club carrier. R. S. Parmater. No. 1,418,093; May 30.
Graphic recorder. C. B. Thwing. No. 1,418,183; May 30.
Graphophones, Control means for. E. O. Klemm. No. 1,417,747; May 30.
Graphophones, Control mechanism for. E. O. Klemm. No. 1,417,748; May 30.
Grass digger, Quack. R. Lucy. No. 1,417,537; May 30.
Gravity carriers, Gate for. F. A. Rider. No. 1,418,024; May 30.
Grease-gun holder. H. R. Kennedy. No. 1,418,263; May 30.
Grinding machine. W. J. Collins. No. 1,418,235; May 30.
Gun carriages, Device for adjusting the recoil length of fluid brakes for. N. Koch. No. 1,417,922; May 30.
Hair nets, Method and means for wrapping. J. Lindgren. No. 1,417,752; May 30.
Handle: *See*—
Lantern handle.
Handle and making same. S. Ringer. No. 1,418,095; May 30.
Handle extension. B. G. Hackett. No. 1,417,990; May 30.
Handles for cups, etc., Die for forming. E. Brookes. No. 1,417,967; May 30.
Handsaw, Motor-driven. C. M. Geiger. No. 1,417,726; May 30
Hanger: *See*—
Hat hanger. Wardrobe hanger.
Hat. H. N. Neppell. No. 1,418,198; May 30.
Hat hanger. J. Lewis. No. 1,418,190; May 30.
Headed articles, Method and apparatus for forming. O. H. de Lapotterie. No. 1,417,806; May 30.
Headlight. F. S. Kern No. 1,417,607; May 30.
Headlight, Dirigible. H. E. Cary and T. T. McGuire. No. 1,417,497; May 30.
Headlights, etc., Reflector for automobile. C. A. Lester. No. 1,417,926; May 30.
Heat-distributing device. A. G. Scherer. No. 1,417,772; May 30.
Heat value, Apparatus for maintaining constant. H. F. Smith. No. 1,417,635; May 30
Heater: *See*—
Electrical water heater.
Heating device. D. Griffith. No. 1,417,987; May 30.
Heel, Metal. F. H. Anthos. No. 1,417,881; May 30.
Heel protector for ladies' shoes. F. E. Miller. No. 1,417,934; May 30.
Hinge. A. S. Hedstrom. No. 1,418,076; May 30
Hinge structure. E. H. Phipps. No. 1,417,563; May 30.
Hook: *See*—
Bucket-loading hook.
Hook and eye. M. D. Forrest. No. 1,418,244; May 30
Hopper and chute, Loading. A. L. Stephens. No. 1,417,780; May 30.
Hose, Apparatus for housing. L. E. Baker. No. 1,417,484; May 30.
Hot-air furnace. D. A. Scott. No. 1,417,775; May 30.
Hydrogen and nitrogen, Process to produce mixtures of. E. Szarvasy. No. 1,417,952; May 30.
Ice-cream-cone machine. R. Miglietta. No. 1,418,195; May 30.
Ice cream, Means for making. J. M. Long. No. 1,417,847; May 30.
Igniter, Flash. F. A. Gauger and R. W. Johnson. No. 1,417,501; May 30.
Ignition apparatus, Distributor for. F. Conrad. No. 1,417,717; May 30.

Ignition plug, Externally-heatable. A. Peter. No. 1,417,766; May 30.
Incubator egg tray. W. L. Morse. No. 1,417,550; May 30.
Incubator heaters, Boiler for. D. M. Holbrook. No. 1,417,522; May 30.
Indicating apparatus. C. B. Lord. No. 1,417,928; May 30.
Indicator: *See*—
Station indicator.
Inhaler. B. C. Tabor. No. 1,418,182; May 30.
Insole, Adjustable. H. C. George. No. 1,418,250; May 30.
Internal-combustion engine. D. P. Davies. No. 1,417,804; May 30.
Internal-combustion engine. G. B. Gereau. No. 1,417,727; May 30.
Internal-combustion engine. F. A. Standiford. No. 1,417,697; May 30.
Internal-combustion engine, Four-stroke-cycle. F. Sonal. No. 1,417,694; May 30.
Ironing machine. J. J. Marx. No. 1,417,622; May 30.
Ironing machine. J. Mikulasek. No. 1,417,625; May 30.
Joint: *See*—
Universal joint. Welded joint.
Joint and hinge, Combined. S. T. French. No. 1,417,984; May 30.
Joist construction form, Floor-. E. T. McAbee. No. 1,417,614; May 30.
Key case. B. Biehl, Sr. No. 1,418,059; May 30.
Knitting machines, Electrical stop motion for. E. S. Hineline. No. 1,417,914; May 30.
Label-pasting machine. A. Scholin. No. 1,417,634; May 30.
Lace machine, Twist-. W. Coombes. No. 1,418,130; May 30.
Lamp attachment. A. A. Cobb. No. 1,418,128; May 30.
Lamp, Theatrical. F. Mitchell. No. 1,417,935; May 30.
Lantern handle. J. W. Knoblock. No. 1,417,608; May 30.
Lapping mechanism. R. S. Smith and T. Hansen. No. 1,417,580; May 30.
Lapping press. R. S. Smith and T. Hansen. No. 1,417,581; May 30.
Lasting machine. M. Brock. No. 1,417,493; May 30.
Latch, Combination keyless night. J. Somora. No. 1,417,777; May 30.
Latch, Gate. S. A. Rzatkiewicz. No. 1,418,174; May 30.
Latch, Self-closing. M. W. Fischer. No. 1,417,815; May 30.
Lathe. G. Haumann. No. 1,417,521; May 30.
Lavatory fixture. W. B. Stratton. No. 1,417,583; May 30.
Lead, Refining of. H. Harris. No. 1,418,148; May 30.
Let-off. H. J. Sattler, Sr. No. 1,418,025; May 30.
Level, Hand. J. H. Carmean. No. 1,417,496; May 30.
Light dimmer. H. S. Roberts. No. 1,417,630; May 30.
Lighting device, Writing-. J. J. Devine. No. 1,418,132; May 30.
Liquid mixer, Pedal-control. W. Meier. No. 1,418,193; May 30.
Liquids. Container for sterile. G. A. Persson. No. 1,417,561; May 30.
Liquids, Evaporating. E. Morterud. No. 1,418,197; May 30.
Liquids, Multicellular arrangement for the raising of. G. A. Caruelle. No. 1,417,886; May 30.
Lock: *See*—
Automatic lock. Recording lock.
Coin-controlled lock. Steering-wheel lock.
Combination lock. Tire lock.
Nut lock.
Lock. M. Zawistowski. No. 1,417,963; May 30.
Locking and signaling apparatus, Combination pneumatic. E. M. Boyle. No. 1,418,226; May 30.
Locomotive. R. N. Chamberlain. No. 1,417,498; May 30.
Locomotive furnace construction. R. J. Himmelright. No. 1,417,667; May 30.
Locomotive-journal-turning machine, Portable. C. E. Marsh. No. 1,417,621; May 30.
Looms, Battery feed for automatic filling-replenishing. A. E. Rhoades. No. 1,417,861; May 30.
Looms, Picker buffer for. J. T. Thurston. No. 1,417,954; May 30.
Looms, Transferring mechanism for automatic filling-replenishing. E. Martin. No. 1,417,541; May 30.
Luminous images, Apparatus for the production of. M. Curie and M. E. Varinois. No. 1,418,240; May 30.
Machinery repair washer, Sectional. C. N. Barton. No. 1,418,052; May 30.
Magnetic fields, Magnetometer for measuring weak. J. L. V. da Cruz. No. 1,417,803; May 30.
Magneto. A. C. Kleckner. No. 1,417,746; May 30.
Mail-bag-delivery apparatus. G. D. Bremner and E. E. Troutman. No. 1,418,064; May 30.
Mail-exchange device. J. E. Glass. No. 1,418,252; May 30.
Malted machine. S. Sigal. No. 1,418,099; May 30.
Manifold bracket. E. D. Romans. No. 1,417,691; May 30.
Marking machine, Package-. R. F. Stuart. No. 1,417,781; May 30.
Match holder for hats. J. L. Warner. No. 1,418,217; May 30.
Match packet or carton. A. W. Graham. No. 1,417,729; May 30.
Measuring chart and roller therefor, Fabric-. J. T. Pedersen. No. 1,418,162; May 30.
Measuring instrument, Electrical. P. M. Lincoln. No. 1,417,671; May 30.
Measuring instrument, Electrical. B. H. Smith. No. 1,417,695; May 30.
Meat holder. R. Sviontek. No. 1,418,213; May 30.
Meat press and filler. F. Kruse. No. 1,417,610; May 30.
Meat slicer. W. F. H. Braun. No. 1,418,063; May 30.
Mechanical movement. A. E. Cranston. No. 1,417,503; May 30.
Medicinal compound and producing same. J. F. Schamberg and G. W. Raiziss. No. 1,417,771; May 30.
Metal box. A. R. Mann. No. 1,417,932; May 30.
Metal-expanding machine. H. E. White. No. 1,417,706; May 30.
Metal-working tool. W. P. Carroll. No. 1,418,125; May 30.
Meter: *See*—
Gas meter. Water meter.
Milker, Cow. E. A. Cook. No. 1,417,801; May 30.
Milking apparatus. L. Dinesen. No. 1,417,505; May 30.
Mining machine. F. Cartlidge. No. 1,417,716; May 30.
Mixer: *See*—
Fluid mixer. Shortening mixer.
Liquid mixer.
Mixing plant, Portable. J. C. French. No. 1,417,663; May 30.
Mold: *See*—
Cheese mold. Concrete-post mold.
Mold. W. D. Druse. No. 1,418,137; May 30.
Molding machine. T. A. Reynolds. No. 1,417,568; May 30.
Monoliths, Mold and method for forming. R. F. Grady. No. 1,417,599; May 30.
Motors, Means for and method of accelerating induction. R. E. Hellmund. Nos. 1,417,731–2; May 30.
Motors, System of speed control for induction. R. E. Hellmund and H. G. Jungk. No. 1,417,735; May 30.
Mower, Tractor lawn. W. H. Baldwin. No. 1,417,485; May 30.
Multiple expander. T. J. Dixon. No. 1,417,980; May 30.
Multipolar switch. P. Sibley. No. 1,417,576; May 30.
Nail. W. K. Frost. No. 1,417,818; May 30.
Nails, Manufacture of. M. Howarth. No. 1,418,186; May 30.
Negative-registering device. A. T. Koppe. No. 1,417,749; May 30.
Nest and flock culler, Pedigree trap. J. L. Roberts. No. 1,417,631; May 30.
Nut lock. E. M. Bable. No. 1,418,050; May 30.
Oil and carbohydrogen-gas extracting process, Mineral. G. Schneiders. Nos. 1,418,097–8; May 30.
Oil burner. F. Hardinge. No. 1,417,520; May 30.
Oil dispenser, Lubricating-. A. R. Fenaes and W. H. Kennedy. No. 1,418,142; May 30.
Oil displaying and dispensing systems, Visible indicating system for. C., W. E., and O. M. Kendall, and W. M. Hancock. No. 1,417,530; May 30.
Oil-feed device, Automatic. W. H. Wix. No. 1,418,046; May 30.
Oil-treating mixer. M. Belcher. No. 1,417,965; May 30.
Ore-concentrating table. G. A. Overstrom. No. 1,417,682; May 30.
Ore leaching. W. Schopper. No. 1,417,947; May 30.
Outage gauge. C. F. Ehrentraut. No. 1,417,892; May 30.
Overalls. S. Berkowitz. No. 1,418,124; May 30.
Packaging apparatus. F. L. Lloyd. No. 1,417,536; May 30.
Pad: *See*—
Typewriter pad.
Paint, Composition for. H. C. Kishpaugh. No. 1,417,842; May 30.
Paints, varnishes, etc., Removal of. W. Tiddy. No. 1,417,955; May 30.
Pan: *See*—
Evaporating pan. Pigment-stirring pan.
Panel. L. H. Garlinghouse. No. 1,417,664; May 30.
Panel, Wooden. J. Butler. No. 1,418,067; May 30.
Paper and paper containers greaseproof, Rendering. W. L. Wright. No. 1,417,708; May 30.
Paper container for greaselike substances. W. L. Wright. No. 1,417,707; May 30.
Paper-feeding device. P. A. Gallien. No. 1,417,597; May 30.
Paper-holding device. F. R. W. Ross. No. 1,418,204; May 30.
Paper strips, Machine for applying mouthpiece-forming sheets to cigarette-. E. Koerner. No. 1,417,609; May 30.
Partition connection. W. G. Hay. No. 1,418,257; May 30.
Pastry, Apparatus for manufacturing cup. W. McLaren. No. 1,417,757; May 30.
Pattern: *See*—
Garment pattern.
Pen and pencil, Combination fountain. A. R. Tallman. No. 1,417,642; May 30.
Pendant, Blade. D. M. Wall. No. 1,417,872; May 30.
Penmanship, Instrument for teaching and perfecting. P. F. Moffett. No. 1,418,196; May 30.
Phonograph attachment. S. J. Ginsburg. No. 1,418,251; May 30.
Phonograph attachment. P. Simon. No. 1,418,101; May 30.
Phonographic warning device. B. F. Freeble. No. 1,417,983; May 30.
Phonographs, Nonset automatic stop for. G. H. Taggart. No. 1,417,586; May 30.
Photographic dry plates or films, Treating. J. D. Bagley. No. 1,417,791; May 30.
Photographs with special scenic or background effects, Means for taking. G. H. Sutcliffe. No. 1,418,033; May 30.

Photoprinting machine. C. Kesses. No. 1,417,832; May 30.
Picture frame, button, badge, and the like. I. N. Zeller. No. 1,418,222; May 30.
Picture machines, Multiple-record table for motion-. W. P. Stung and L. R. Gilbert. No. 1,418,180; May 30.
Pigment-stirring pan. C. P. Bossert. No. 1,417,885; May 30.
Pipe: *See*—
Smoker's pipe.
Pipe, cigar and cigarette holder. J. Wawricka. No. 1,418,113; May 30.
Pipe-handling apparatus. A. H. Brandon. No. 1,417,490; May 30.
Piston. H. Glaser. No. 1,417,514; May 30.
Piston ring. H. Stoffers. No. 1,418,211; May 30.
Plane, Hand. S. Pfeiffer. No. 1,417,857; May 30.
Plaster board, Forming. J. Schumacher. No. 1,418,027; May 30.
Plaster boards and the like, Clip for. H. H. Burson. No. 1,417,793; May 30.
Plotter. W. C. Lineaweaver. No. 1,417,753; May 30.
Plow. R. Marlow. No. 1,418,156; May 30.
Plow. W. L. Trussell. No. 1,417,643; May 30.
Plug and socket contact. B. Raettig. No. 1,418,171; May 30.
Plug-in attachment. D. P. and J. F. Williams. No. 1,417,649; May 30.
Plumbing system. F. W. Carlson. No. 1,417,660; May 30.
Polisher, Floor. M. E. Lipscomb. No. 1,417,673; May 30.
Polishing plane surfaces, Apparatus for. J. M. Christine. No. 1,417,593; May 30.
Potassium from natural potassium compounds, Obtaining. D. D. Jackson. No. 1,417,919; May 30.
Potassium sulphate and hydrochlorate acid, Manufacture of. P. Comment. No. 1,417,887; May 30.
Potato-peeling apparatus. H. J. Capellman and R. Hayhurst. No. 1,418,230; May 30.
Pottery, Apparatus for the manufacture of. E. Brookes. No. 1,417,968; May 30.
Power-driven machines, Combined reversing gear and belt shifter and tightener mechanism for. W. H. Sumbling. No. 1,417,699; May 30.
Power generator, Pneumatic. S. S. Cramer. No. 1,418,238; May 30.
Power transmission and mechanism therefor. H. Enard. No. 1,417,894; May 30.
Preserving in the fresh condition organic matters, and particularly meat and fish. L. A. Cholet. No. 1,418,233; May 30.
Press: *See*—
Broom press. Punch press.
Lapping press. Tobacco press.
Printing press.
Presses, Suspension thrust-resisting attachment for. W. A. Jennings. No. 1,417,997; May 30.
Printing-element holder. H. S. Warnock. No. 1,418,112; May 30.
Printing-press attachment. G. K. Sinclair. No. 1,418,102; May 30.
Printing press, Multicolor. C. A. Richards. No. 1,417,769; May 30.
Printing press, Multicolor-. C. A. Richards and M. M. Riester. No. 1,417,569; May 30.
Printing presses, Sheet-feeding device for high-speed. J. Fischer. No. 1,418,145; May 30.
Propeller. J. Bartha and A. E. Glassmann. No. 1,417,486; May 30.
Protractor, Slide. R. Abare. No. 1,417,878; May 30.
Puller: *See*—
Stump puller.
Pulley, Divided. N. R. M. Weibull. No. 1,417,960; May 30.
Pump, Centrifugal. G. H. Elmore. No. 1,417,812; May 30
Pump, Centrifugal. R. N. Trane. No. 1,418,041; May 30
Pump, Compression. F. L. Manny and W. H. Key. No. 1,417,677; May 30.
Pump, Compressor or vacuum. R. N. Trane. No 1,418,040; May 30
Pump, Oil-well. J. H. Nichols. No. 1,417,764; May 30.
Pump rods and the like, Mechanism for turning. E. W. Pietzschke. No. 1,417,858; May 30.
Pump, Self-measuring visible-liquid. D. S. Collins. No. 1,418,129; May 30.
Pump valve. G. S. Wilcox. No. 1,418,043; May 30.
Punch. A. Beck. No. 1,417,488; May 30.
Punching machine. L. Streibel. No. 1,417,867; May 30.
Punch press. R. M. MacGregor. No. 1,417,539; May 30.
Rack: *See*—
Ball rack.
Radiator attachment. J. J. Desjardins. No. 1,417,504; May 30.
Radiators, Humidifying attachment for. P. T. Jackson. No. 1,418,150; May 30.
Radiosignaling system. L. de Forest. No. 1,417,662; May 30.
Radiotransmitting system. T. R. Bunting. No. 1,418,066; May 30.
Rail clamp. D. Ambrose. No. 1,418,122; May 30.
Rail clamp, Guard-. E. C. Zimmerman. No. 1,418,120; May 30.
Rail connector. W. H. Kirkwood. No. 1,417,531; May 30.
Rail tie. J. V. Mayhew. No. 1,417,851; May 30.
Railway crossing. E. S. Abbott. No. 1,417,964; May 30.
Railway draft-gear yokes, Manufacture of. H. T. Anderson. No. 1,417,480; May 30.
Railway lighting system. L. A. Watson. No. 1,417,787; May 30.
Railway motors, Gear for. W. E. Moore. No. 1,417,937; May 30.
Rakes, Garden marker for. E. Welsh. No. 1,417,705; May 30.
Razor, Safety. J. S. Gullborg. No. 1,417,988; May 30.
Razor, Safety. R. W. McGarvey. No. 1,418,191; May 30.
Reamer. H. A. Greenlee. No. 1,418,255; May 30.
Receptacle closure. F. D. Crane. No. 1,417,975; May 30.
Receptacle, Deposit and collection. F. W. Schulze. No. 1,417,773; May 30.
Receptacles, Sealed joint for liquid. J. C. McKallip. No. 1,418,155; May 30.
Recorder: *See*—
Graphic recorder.
Recording lock. J. W. Bryce. No. 1,417,715; May 30.
Reel: *See*—
Fishing reel. Fishline reel.
Refrigerating apparatus. F. E. Norton. No. 1,418,015; May 30.
Refrigerating machine. G. L. E. Kothny. No. 1,418,002; May 30.
Rein holder. O. G. Gilbertson. No. 1,418,147; May 30.
Relay. E. Vedeovelli. No. 1,417,785; May 30.
Resilient driving connection. G. M. Eaton. No. 1,417,721; May 30.
Respirators, Antidimmer for. A. B. Lamb. No. 1,418,264; May 30.
Reversible wrench. W. H. Burstall and J. S. Turner. No. 1,417,969; May 30.
Rifles and revolvers, Front sight for. J. J. Le Fever. No. 1,417,670; May 30.
Rim clamp. G. V. Sears. No. 1,417,864; May 30.
Rim, Collapsible. E. F. Wilson. No. 1,418,045; May 30.
Rim tool. G. V. Sears. No. 1,417,863; May 30.
Rims and tires, Lock for demountable. R. Moncure. No. 1,417,549; May 30.
Ring: *See*—
Piston ring.
Riveting tool. F. A. Becker and A. P. Andlauer. No. 1,417,711; May 30.
Road construction, Spreader for. C. W. Yelm. No. 1,417,709; May 30.
Road leveler. W. R. Banwart. No. 1,418,225; May 30.
Rocks, Obtaining in soluble state some of the constituents of complex. F. Jourdan. No. 1,417,831; May 30.
Rod: *See*—
Connecting rod.
Rod packing. A. Wright. No. 1,417,877; May 30.
Rod-straightening machine. J. E. Schmidt and C. E. McArthur. No. 1,418,026; May 30.
Rods and tubes, Process and apparatus for forming laminated. W. H. Kempton. No. 1,417,743; May 30.
Röntgen-ray tubes, Appliance for regulating the hardness of. H. F. Eiken. No. 1,418,139; May 30.
Roof structure. L. Baumgartt. No. 1,417,487; May 30.
Roof structure. G. Geyer. No. 1,417,513; May 30.
Rubber and other like substances, Vulcanization of. B. D. Porritt. No. 1,418,166; May 30.
Rubber employing amines and open-chain aldehydes and similar substances and products obtained thereby, Vulcanization of. S. M. Cadwell. No. 1,417,970; May 30.
Safety-pin card or package. J. Waldes. No. 1,417,589; May 30.
Safety switch. F. O. Winklehaus. No. 1,417,650; May 30.
Sales outfit, Securities. J. Q. Newton. No. 1,417,854; May 30.
Sampling apparatus. R. L. Bruner. No. 1,418,065; May 30.
Saw-filing machine. W. S. Pritchard. No. 1,417,687; May 30.
Saw guide. G. W. Cary. No. 1,417,973; May 30.
Saw, Surgical. M. Langworthy. No. 1,417,669; May 30.
Scales, Pendulum ball for automatic. L. H. Kennedy. No. 1,417,833; May 30.
Scraping tool. J. A. Kimball. No. 1,418,189; May 30.
Screen: *See*—
Window screen.
Screw-cutting machines, Die head of. C. W. Harris. No. 1,417,601; May 30.
Screw driver. C. Trunick. No. 1,418,184; May 30.
Screw-driver attachment. A. Hilton. No. 1,417,995; May 30.
Screw, Temper. J. Strobel. No. 1,417,698; May 30.
Seat: *See*—
Vehicle seat.
Separator: *See*—
Centrifugal separator.
Service switch. J. A. Jessen. No. 1,417,920; May 30.
Service switch. G. E. Palmer. No. 1,417,940; May 30.
Settling tank. W. H. Green. No. 1,417,516; May 30.
Sewing machine, Buttonhole-. E. B. Allen. No. 1,418,223; May 30.
Sewing-machine feed, Elevation adjustment for. A. D. Smith. No. 1,417,865; May 30.
Sewing-machine motor drive. A. T. Mace. No. 1,417,676; May 30.
Sewing-machine motors, Mounting for. R. Ehrenfeld and H. G. Caldwell. No. 1,417,722; May 30.
Sewing machines, Motive-power appliance for. D. Lustig. No. 1,418,007; May 30.
Sewing machines, Needle-guide-controlling means for. M. T. Denne. No. 1,417,978; May 30.

Shade holder. L. W. Andersen. No. 1,417,481; May 30.
Shaft-control device. C. H. Clark and H. L. Beach. No. 1,417,794; May 30.
Shafts, Keying device for. P. Hariveau. No. 1,417,826; May 30.
Shaping and ironing tool. F. E. Kern. No. 1,417,668; May 30.
Sheet material, Process of and machine for cutting. S. Wheeler. No. 1,418,115; May 30.
Shingle. L. M. Stuffings. No. 1,417,641; May 30.
Shipping case. V. L. Krannert. No. 1,417,533; May 30.
Shipping case covers, Fastening device for. J. B. Hawley. No. 1,417,827; May 30.
Shock-absorber mechanism. G. H. Irwin. No. 1,417,918; May 30.
Shoe. J. Hajek. No. 1,417,517; May 30.
Shoe heel. J. M. Ranko. No. 1,418,094; May 30.
Shoemaker's repair outfit. F. Grochal and J. Otreba. No. 1,417,900; May 30.
Shopper's bag. W. H. Kniep. No. 1,418,001; May 30.
Shortening mixer. M. E. Geiger. No. 1,417,985; May 30.
Shutter lift. H. H. Daniels. No. 1,417,595; May 30.
Side cars to motor cycles, Coupling for connecting. W. F. Grew. No. 1,417,822; May 30.
Sifter, Dustless ash. J. Maiers. No. 1,417,849; May 30.
Sign. C. W. G. Hannah. No. 1,417,519; May 30.
Sign. P. H. Miner. No. 1,418,012; May 30.
Sign, Reversible. C. A. Fetters. No. 1,418,144; May 30.
Sign units, Pressing mechanism for. W. F. Heeren. No. 1,417,993; May 30.
Signal: *See*—
Direction signal. Vehicle signal.
Traffic signal.
Signals having several positions, Controlling device for. V. Cesar. No. 1,418,127; May 30.
Silo and erecting silos. B. B. Vorse. No. 1,418,216; May 30.
Skylight. B. P. Blaski. No. 1,418,061; May 30.
Slab, Monolithic flat. K. R. Schuster. No. 1,417,774; May 30.
Slicer and grater, Rotary. J. M. Stelmach. No. 1,418,178; May 30.
Slicing machine. W. C. Knapp. Nos. 1,417,843–4; May 30.
Slicing machine. L. Spiselman. No. 1,418,104; May 30.
Slitters, Feeding device for. M. E. Widell. No. 1,418,117; May 30.
Smoker's pipe. C. F. Guedel. No. 1,417,823; May 30.
Snap switch. L. Larsen. No. 1,417,751; May 30.
Socket slip. C. P. Williams. No. 1,417,648; May 30.
Sole. A. F. Littlefield. No. 1,417,535; May 30.
Sound box. F. Cheney. No. 1,417,499; May 30.
Sound-receiving apparatus. W. L. Walker. No. 1,417,786; May 30.
Sound-reproducing machines, Mounting for. E. F. O'Neill. Nos. 1,418,016–7; May 30.
Spanner wrench, Adjustable. J. J. Bartenstein. No. 1,417,792; May 30.
Spark plug. F. M. Wood. No. 1,417,876; May 30.
Spark plugs, Attachment for. E. F. Wackwitz. No. 1,417,871; May 30.
Spring: *See*—
Vehicle spring.
Springs, Tool for bending. W. D. Doonan. No. 1,417,890; May 30.
Sprinkler: *See*—
Traveling sprinkler.
Stair-rod fastener. I. W. Diehl. No. 1,418,133; May 30.
Stamping machines, Hydraulic windlass for drop. J. A. Perony. No. 1,417,856; May 30.
Stapling machine, Multiple. H. B. Walter. No. 1,417,704; May 30.
Station indicator. H. J. Pendray. No. 1,417,765; May 30.
Steel-wool holder. H. L. Male. No. 1,417,619; May 30.
Steering devices, Antirattle device for. J. D. Lowe. No. 1,417,674; May 30.
Steering gears, Antirattling joint for. N. A. Locke. No. 1,418,005; May 30.
Steering gears, Drag link for. F. P. Williams. No. 1,418,044; May 30.
Steering-wheel lock. M. R. White. No. 1,417,647; May 30.
Stool, Camp. G. Nesland. No. 1,417,680; May 30.
Stool, Motorman's. J. S. Ralph. No. 1,417,565; May 30.
Stopper: *See*—
Bottle stopper.
Store, Self-serving. W. B. McCarty. (Reissue.) No. 15,368; May 30.
Stoves, Reservoir for oil. W. C. Lindemann. No. 1,417,672; May 30.
Strap connector. E. C. Fitch. No. 1,417,507; May 30.
Strip-uniting machine. F. A. Woehr. No. 1,417,651; May 30.
Stroke-regulating device, Automatic. F. B. Giesler. No. 1,417,986; May 30.
Stump puller. K. C. Wolcott. No. 1,418,119; May 30.
Surgical bust substitute. L. E. Mailleue. No. 1,417,930; May 30.
Sweepers, Broom for. M. V. Liddell. No. 1,418,088; May 30.
Sweeping machines, Front truck for street. C. W. Lund. No. 1,418,154; May 30.
Swing. B. F. Malott. No. 1,418,192; May 30.
Switch: *See*—
Electric switch. Service switch.
Multipolar switch. Snap switch.
Safety switch.
Switch and fuse box, Safety. C. L. Eidlitz. No. 1,417,723; May 30.
Swivel. O. H. Sleeper. No. 1,417,949; May 30.
Table: *See*—
Camp table. Treatment table.
Table and chair, Combined. J. Zielinski. No. 1,417,655; May 30.
Table leveler. D. L. Sterner. No. 1,417,639; May 30.
Talking-machine sound box. A. H. Gay. No. 1,418,249; May 30.
Tank: *See*—
Settling tank.
Teeter device. W. S. Tothill. No. 1,418,037; May 30.
Telegraph apparatus. E. L. Klingel. No. 1,418,000; May 30.
Telephone system, Automatic. D. L. Hulfish. No. 1,418,187; May 30.
Telescopic wrench. W. J. Parsons. No. 1,417,683; May 30.
Thermostatic control, Apparatus for. N. Hofstad. No. 1,417,738; May 30.
Threads or filaments, Manufacture of artificial. W. P. Dreaper. No. 1,418,136; May 30.
Tie: *See*—
Rail tie.
Tile for floor structures. J. H. Toupet. (Reissue.) No. 15,369; May 30.
Tile, Machine for forming plastic. H. Brock. No. 1,418,227; May 30.
Timing mechanism. W. E. Schwarzmann. No. 1,418,175; May 30.
Tins, Cover for hermetically-sealed. F. J. Snook. No. 1,418,029; May 30.
Tire casings, Vulcanizing mold for. J. R. Gammeter. No. 1,417,509; May 30.
Tire-chain fastener. J. W. Hubble. No. 1,418,149; May 30.
Tire holder. B. Frank. No. 1,417,817; May 30.
Tire holder, Spare-. J. Merz. No. 1,417,678; May 30.
Tire lock. W. T. Campbell. (Reissue.) No. 15,365; May 30.
Tire protector, Pneumatic-. P. Lome. No. 1,417,755; May 30.
Tire pump. I. L. Davies. No. 1,417,805; May 30.
Tire, Steel spring. W. S. Hayden. No. 1,418,258; May 30.
Tires, Apparatus for making pneumatic. E. H. Trump. No. 1,417,701; May 30.
Tires, Collapsible rim for pneumatic. W. E. Dressel. (Reissue.) No. 15,366; May 30.
Tires, Machine for trimming. E. D. Putt. No. 1,417,627; May 30.
Tires, Method and apparatus for manufacturing. E. Hopkinson. No. 1,417,739; May 30.
Tires, Sectional rim for pneumatic. W. Flood. No. 1,417,724; May 30.
Tobacco press. L. B. Grasberger. No. 1,417,899; May 30.
Toboggan and slide. E. Cole. No. 1,417,594; May 30.
Tomato masher. F. Carlino. No. 1,418,231; May 30.
Tool. J. M. Brandt. No. 1,417,492; May 30.
Tool kit. G. R. Fullenwider. No. 1,417,725; May 30.
Tool-operating machine. A. Salata. No. 1,418,205; May 30.
Tooth crown and securing means therefor, Artificial. E. M. Fredericks. No. 1,418,070; May 30.
Toothbrush. E. R. Elliott. No. 1,417,811; May 30.
Towel cabinet. H. C. Wheeler. No. 1,418,219; May 30.
Toy. H. Reich. No. 1,417,860; May 30.
Toy. A. Vogt. No. 1,417,958; May 30.
Toy electric railways. H. E. Lindig. No. 1,418,151; May 30
Toy, Sand. G. J. Genung and W. L. Welsh. No. 1,417,512; May 30.
Tractor attachment. A. A. Sunde. No. 1,418,181; May 30.
Tractor attachment, Spring-mounted. A. E. Cook and T. Van Tuyl. No. 1,417,799; May 30.
Tractor hitch. F. Brown. No. 1,418,228; May 30.
Tractor tracks, Link for. R. L. Savage. No. 1,417,693; May 30.
Tractors, Unit construction for. G. W. Dunham. No. 1,417,720; May 30.
Tractors, Windlass attachment for. W. Turnbull. No. 1,417,784; May 30.
Traffic signal. R. D. Douglass. No. 1,417,809; May 30.
Traffic signal. G. W. Ewing. No. 1,418,141; May 30.
Trailer. S. E. Liedabrand. No. 1,417,846; May 30.
Transmission. J. S. Smalley. No. 1,417,950; May 30.
Transmission mechanism. F. Cartlidge. No. 1,418,126; May 30.
Transmission mechanism. R. Grant and J. S. R. Rigby. No. 1,418,254; May 30.
Transom attachment. P. J. Nolan. No. 1,417,626; May 30.
Traveling sprinkler. E. Zerweck. No. 1,418,047; May 30
Treatment table. J. V. McManis. No. 1,417,675; May 30.
Trench, Portable. M. López. No. 1,417,613; May 30.
Trimmer: *See*—
Broom trimmer.
Trolley-pole head. V. Saccone. No. 1,417,945; May 30.

Truck and tractor attachment, Interchangeable. A. E. Cook and T. Van Tuyl. No. 1,417,796; May 30.
Truck, Railway. W. E. Woodard. No. 1,417,653; May 30.
Truck wheel. A. M. Leoni. (Reissue.) No. 15,367; May 30.
Truss. J. C. McKeown. No. 1,417,929; May 30.
Tube expander, Multiple-. T. J. Dixon. No. 1,417,979; May 30.
Turnbutton fastener. D. Bourque. No. 1,417,658; May 30.
Turntable, Continuous girder. O. E. Hovey. No. 1,417,917; May 30.
Type box. W. A. Sears. No. 1,418,206; May 30.
Typewriter pad. B. G. Osborne. No. 1,417,556; May 30.
Typewriting and computing machine, Combined. H. L. Pitman. No. 1,417,685; May 30.
Typewriting machine. A. Block. No. 1,417,489; May 30.
Typewriting machine. W. A. Dobson. No. 1,418,241; May 30.
Typewriting machine. E. B. Hess and L. C. Myers. No. 1,417,902; May 30.
Typewriting machine. E. B. Hess and L. C. Myers. No. 1,417,904; May 30.
Typewriting machine. E. B. Hess and L. C. Myers. No. 1,417,910; May 30.
Typewriting machine. F. W. Hillard. No. 1,417,737; May 30.
Typewriting machine. J. B. Holden. No. 1,418,077; May 30.
Typewriting machines, Back-space mechanism for. E. B. Hess and L. C. Myers. No. 1,417,905; May-30.
Typewriting machines, Line-lock mechanism and margin-release mechanism for. E. B. Hess and L. C. Myers. No. 1,417,906; May 30.
Typewriting machines, Line-spacing mechanism for. E. B. Hess and L. C. Myers. No. 1,417,907; May 30.
Typewriting machines, Margin scale for. E. B. Hess and L. C. Myers. No. 1,417,903; May 30.
Typewriting machines, Ribbon guide for. E. B. Hess and L. C. Myers. No. 1,417,909; May 30.
Typewriting machines, Ribbon operating and guiding mechanism for. E. B. Hess and L. C. Myers. No. 1,417,908; May 30.
Typewriting machines, Scales for. E. B. Hess and L. C. Myers. No. 1,417,911; May 30.
Umbrella stretchers and ribs, Fastener for. A. G. Brandt. No. 1,417,491; May 30.
Uncoupling mechanism. W. Kelso. No. 1,417,606; May 30.
Uncoupling mechanism. I. H. Milliken and W. J. Regan. Nos. 1,417,543 & 8; May 30.
Uncoupling mechanism. W. J. Regan. No. 1,417,567; May 30.
Undergarment. S. A. Hanson. No. 1,417,992; May 30.
Universal joint. B. O. Rhodes. No. 1,417,689; May 30.
Vacuum electric apparatus. P. C. Hewitt. No. 1,417,912; May 30.
Valve, Automatic plate. M. Riesner. No. 1,417,690; May 30
Valve, By-pass. C. J. Dewey. No. 1,417,808; May 30.
Valve, By-pass. F. H. Schaefer. No. 1,417,770; May 30.
Valve, Differential dry-pipe. P. Evans. No. 1,418,140; May 30.
Valve, Engine. J. R. Warren and A. Brechting. No. 1,417,590; May 30.
Valve for fluid-pressure pipes, Safety. W. B. Royer. No. 1,418,096; May 30.
Valve, Fuel. P. H. Gundermann. No. 1,418,073; May 30.
Valve, Radiator. G. H. Bugenhagen. No. 1,417,592; May 30.
Vaporizer, Liquid. E. Cleary. No. 1,418,234; May 30.
Vehicle, Child's. J. M. and W. C. Thorpe. No. 1,418,266; May 30.
Vehicle seat. A. A. Kent. No. 1,417,744; May 30.
Vehicle sign. W. A. Petersen. No. 1,417,767; May 30.
Vehicle signal. G. L. Wenk. No. 1,418,042; May 30.
Vehicle spring. C. P. Stanbon. No. 1,418,031; May 30.
Vehicle spring support. B. D. Geer. No. 1,417,511; May 30.
Vehicle wheel. W. T. Wilder. No. 1,418,221; May 30.
Vehicles, Attachment for motor. J. G. Tennent. No. 1,418,034; May 30.
Vehicles, Heating attachment for motor. J. D. Shotwell. No. 1,418,208; May 30.
Vehicles, Mud or splash guard for. W. Fairclough. No. 1,417,813; May 30.
Vending machine. G. B. Smith. No. 1,417,578; May 30.
Veneer and the like, Supporting means for strips of. A. H. Nordyke. No. 1,418,014; May 30.
Ventilator and chimney cap. R. T. Merrill. No. 1,417,761; May 30.
Vessel and making same, Drinking. H. A. House. No. 1,417,916; May 30.
Viscose solutions, Manufacture of. W. P. Dreaper. No. 1,418,135; May 30.
Vulcanizing equipment. T. Midgley. No. 1,417,551; May 30.
Wagon, Truck and dump. W. A. Petteys. No. 1,418,163; May 30.
Wall action, Preventing. H. F. Smith. No. 1,417,636; May 30.
Wardrobe hanger. R. S. Kitchingman. No. 1,417,921; May 30.
Washer: *See*—
Ashes washer. Machinery repair washer.
Washing machines, Pivoted wringer structure for. R. J. Anderson. No. 1,417,656; May 30.
Washstand, Adjustable. M. Seska. No. 1,417,948; May 30.
Watch fob. T. F. Mullen. No. 1,417,852; May 30.
Watch guards, Slide for ribbon. C. H. Sherman. No. 1,417,575; May 30.
Water heaters, Heat retainer for. M. E. Dearing. No. 1,417,888; May 30.
Water meter. J. C. Stevens. No. 1,418,032; May 30.
Water, Purifying and decolorizing. M. F. Newman. No. 1,418,013; May 30.
Water-stage-recording instrument, Venturi-flume. R. L. Parshall. No. 1,417,941; May 30.
Water wheel. W. M. White. No. 1,418,116; May 30.
Watering device for cattle. H. C. Rassmann. No. 1,417,688; May 30.
Waterproof board and making same. L. Kirschbraun. No. 1,417,836; May 30.
Waterproof composition, Making. L. Kirschbraun. No. 1,417,837; May 30.
Waterproof product. L. Kirschbraun. No. 1,417,839; May 30.
Weaving process and loom therefor. S. B. Crespi. No. 1,418,239; May 30.
Welded joint. C. F. Gailor. No. 1,418,071; May 30.
Welding machine, Tube-. R. O. and S. Berg. No. 1,418,058; May 30.
Well-drilling rigs, Compound walking beam for. R. W. Jamison. No. 1,417,604; May 30.
Well-drilling rotaries, Post for. J. O. Bennett. No. 1,418,056; May 30.
Wheel: *See*—
Detachable driving wheel. Vehicle wheel.
Truck wheel. Water wheel.
Wheel. W. P. Dalrymple. No. 1,418,069; May 30.
Wheel and axle construction. G. W. Carlson. No. 1,417,972; May 30.
Wheel antislipping attachment. W. A. Biggs. No. 1,418,060; May 30.
Wheel carrier. E. R. Draver. No. 1,418,134; May 30.
Wheel rim, Disk-. T. I. Duffy. No. 1,417,506; May 30.
Windmill. P. Melnick. No. 1,418,194; May 30.
Window screen. C. S. Myers. No. 1,417,763; May 30.
Wire-coiling device. F. M. Ramsdell. No. 1,417,629; May 30.
Wire glass, Making corrugated. W. Cox and A. Shuman. No. 1,418,236; May 30.
Wood pasteboard, Masonry, leather, sheet iron, etc., Coating for the preservation of. E. Reck. No. 1,418,172; May 30.
Woodworking machine, Pattern-controlled. A. P. Smith and W. E. Shockley. No. 1,418,028; May 30.
Woodworking machine, Portable combination. J. F. Powell. No. 1,417,686; May 30.
Work support. F. L. Mackenzie. No. 1,417,540; May 30.
Wrappers on packages and mechanism for carrying out said process, Placing. A. R. Scholin. No. 1,417,946; May 30.
Wrapping and packing articles, Means for. E. D. Anderson. No. 1,417,591; May 30.
Wrapping or labeling machine. P. Varga. No. 1,417,956; May 30.
Wrench: *See*
Reversible wrench. Spanner wrench.
Wrench. H. Gutman. No. 1,418,256; May 30.
Wrench. A. McDonald. No. 1,417,756; May 30.
Wrench. F. F. Pease. No. 1,418,161; May 30.

ALPHABETICAL LIST OF DESIGNS.

Apron, Child's soap-bubble. M. T. Waters. No. 61,023; May 30.
Ash tray. H. Negbaur. No. 61,019; May 30.
Bottle. W. G. Eisenmayer. No. 61,012; May 30.
Chandelier body, Arm for a. F. M. Poritz. No. 61,020; May 30.
Curtain and shade bracket. G. Wonsowicz. No. 61,024; May 30.
Doll. E. Ellery, Jr. No. 61,013; May 30.
Doll. F. W. Sharp. No. 61,022; May 30.
Glass lighting bowl. E. A. Gillinder. Nos. 61,014–6; May 30.
Lamp stand and smoking set, Combined. S. M. Israel. No. 61,018; May 30.
Lighting-fixture loop. T. Dahl. No. 61,011; May 30.
Refrigerator, Iceless. G. A. Amato. No. 61,009; May 30.
Rubber boot or shoe sole. E. C. Heilhecker. No. 61,017; May 30.
Temperature-indicating instruments, Dial plate for. H. Schlaich. No. 61,021; May 30.
Tire. C. Zeglen. No. 61,025; May 30.
Votive stand. R. Coco. No. 61,010; May 30.

ALPHABETICAL LIST OF TRADE-MARKS REGISTERED.

Aluminum wares, Certain. Sterling Sales Company. No. 155,537; May 30.
Auto top and seat dressing. C. E. Harris. No. 155,438; May 30.
Automobiles. Hupp Motor Car Corporation. No. 155,451; May 30.
Bags, Mesh. Whiting & Davis Company. No. 155,562; May 30.
Balls, Golf. Holmac, Inc. No. 155,448; May 30.
Bedding, cushions, bedsteads, upholstery and bed springs, Certain. Robinson-Roders Co. No. 155,516; May 30.
Belt dressing. Cantol Wax Company. No. 155,390; May 30.
Beverage and sirup for making the same, Nonalcoholic, maltless. Z. L. Glenn. No. 155,427; May 30.
Beverages, Nonalcoholic, maltless. H. C. Hubbard Co. No. 155,572; May 30.
Beverage, Nonalcoholic, noncereal, maltless. W. T. Wagner's Sons Company. No. 155,554; May 30.
Beverages and sirups for making same, Nonalcoholic, maltless. M. Carbone. No. 155,393; May 30.
Bleach, Face. Plough Chemical Company. No. 155,508; May 30.
Boot, shoe, and leather, polishes, etc. Yankee Polish Co. No. 155,568; May 30.
Bread and rolls. Hazleton Baking Co. No. 155,443; May 30.
Breads and pastry. Oswald Jaeger Baking Co. No. 155,501; May 30.
Buttons, Cuff. Kohl-Pye Manufacturing Co. No. 155,470; May 30.
Cambric piece goods. Marshall Field & Company. No. 155,480; May 30.
Caps, fuses, igniters, etc. E. I. du Pont de Nemours & Company. No. 155,407; May 30.
Carbonated and lithiated water, ginger ale, etc. Ritz-Carlton Mineral Water Co. No. 155,515; May 30.
Cards, Playing. United States Playing Card Company. No. 155,547; May 30.
Cases and bags of leather, fiber, and other material for fishing tackle. Knickerbocker Case Company. Nos. 155,466–7; May 30.
Chemical preparation as an insect exterminator. J. Liberto. No. 155,472; May 30.
Chemicals, Certain. Northwestern Chemical Company. No. 155,498; May 30.
Chemicals, medicines, and pharmaceutical preparations. Caravel Company. No. 155,392; May 30.
Chests, Cedar. Standard Red Cedar Chest Co. No. 155,535; May 30.
Cigar and cigarette holders, pipe stems, etc. Kunstharzfabrik Dr. Fritz Pollak G. m. b. H. No. 155,469; May 30.
Cigars. John C. Guy Company. No. 155,435; May 30.
Cigars. Peoples Drug Stores, Inc. No. 155,507; May 30.
Cigars, cheroots, cigarettes, smoking and chewing tobacco. Moss & Lowenhaupt Cigar Co. No. 155,491; May 30.
Cigarette and cigar holders. Hadon Products Corp. No. 155,437; May 30.
Cigarette snuffers, ash trays, match stands, etc. S'Nuff Smoke Sales Co. No. 155,529; May 30.
Cigarettes. General Tobacco Company. No. 155,425; May 30.
Cleaner and polisher. A. M. Kallberg. No. 155,462; May 30.
Cleaning powders, pastes, and liquids for window shades, etc. Paris Manufacturing Company. No. 155,503; May 30.
Cleanser in soap form. Hawkeye Cleanser Co. No. 155,442; May 30.
Cleansers, Stove. Walmar Laboratory. No. 155,556; May 30.
Cleansing fluids for fabrics. Kendall Products Corporation. No. 155,464; May 30.
Clocks and timepieces generally. H. Loeb. Nos. 155,473–4; May 30.
Clothing, Certain articles of. Jack & Jill Knitting Mills, Inc. No. 155,459; May 30.
Composition for treatment of roup, colds, diphtheria, etc., among fowls. H. M. Spahr. No. 155,533; May 30.
Corsets. J. Siegel & Co. No. 20,503; renewed Dec. 29, 1921.
Cotton cloth piece goods. Marshall Field & Company. No. 155,481; May 30.
Cotton drills. Wellington, Sears & Company. No. 155,592; May 30.
Cotton fabrics in the piece, Woven. G. A. Stafford. No. 155,534; May 30.
Cotton piece goods. Brune, Pottberg & Co. No. 155,389; May 30.
Cotton piece goods. Pacific Mills. No. 155,581; May 30.
Cotton suitings. Nashua Manufg. Company. No. 155,492; May 30.
Cream, Toilet. I. Magnim & Co. No. 155,478; May 30.
Creams, astringent lotion, etc., Toilet. A. T. Clapper. No. 155,396; May 30.
Dental paste. Pyrosal Company. No. 155,509; May 30.
Dentifrice. W. H. Hall. No. 20,552; renewed Jan. 5, 1922.
Depilatory. Dearborn Supply Company. No. 155,403; May 30.
Disinfectants, deodorizers, fumigators, antiseptics. W. H. Huggins. No. 155,450; May 30.
Dolls, toy animals, and doll clothes, Washable. C. V. Havens. No. 155,441; May 30.
Dyes and dyestuffs. Grasselli Chemical Company. Nos. 155,431–3; May 30.
Dynamite. E. I. du Pont de Nemours & Company. No. 155,408; May 30.
Egg production of laying hens, Stimulant to increase the. In-Cre-So Company. No. 155,455; May 30.
Embroideries or embroidered articles. Rechsteiner Embroidery Company. No. 155,511; May 30.
Epilepsy, Preparation specific for. J. E. Stanton. No. 155,536; May 30.
Ethyl esters of chaulmoogra oil. Winthrop Chemical Company. No. 155,565; May 30.
Extract of wood for tanning purposes. Ernesto Tornquist & Co. Limitada. No. 155,542; May 30.
Fabrics in the piece for use in making corsets. M. Israel. No. 155,458; May 30.
Filters, coolers, and bottle washers. W. W. Klemm. No. 155,574; May 30.
Fishing line. Ashaway Line & Twine Manufacturing Company. Nos. 155,365–80; May 30.
Floor covering. Rothenberg & Co. No. 155,520; May 30.
Furnaces, Heating. H. Gilbert Hart & Co. No. 20,363; renewed Nov. 10, 1921.
Furniture and upholstery, Certain. L. R. Gans. No. 155,424; May 30.
Furniture, Certain office. Jasper Desk Co. No. 155,461; May 30.
Fuse, Safety. Consumers Fuse and Powder Company. No. 155,401; May 30.
Game, Blowing. C. McKay. No. 155,476; May 30.
Garters. R. A. MacHatton. No. 155,477; May 30.
Garters. R. H. Macy & Co. No. 155,575; May 30.
Gasoline. Northern Oil Company. No. 155,495; May 30.
Gems, Imitation. L. J. Rinaldo. No. 155,514; May 30.
Germicide and antiseptic. Saphanol Products Company. No. 155,522; May 30.
Glassware, Certain heat-resisting. Holcomb & Hoke Mfg. Co. No. 155,447; May 30.
Gunpowder. E. I. du Pont de Nemours & Company. No. 155,406; May 30.
Guns for fixed and mobile artillery and naval guns. Bethlehem Steel Company. No. 155,383; May 30.
Hair nets. China American Tobacco Grading Co. No. 155,394; May 30.
Hair nets. A. E. Oppenheimer & Brother. No. 155,499; May 30.
Hair nets and veils. Sitroux Importing Company. No. 155,528; May 30.
Hair nets, Human-. Metropolitan Hair Goods Co. No. 155,485; May 30.
Hosiery. Reins and Meiss. No. 155,512; May 30.
Hosiery. Reins & Meiss. No. 155,513; May 30.
Insecticides. Trager Manufacturing Company. No. 155,543; May 30.
Iodine therapy for infection. Merrimac Drug Company. No. 155,484; May 30.
Jewelry and precious metal ware, Certain. H. G. Essayan. No. 155,415; May 30.
Jewelry and precious metal ware, Certain articles of. Simons Bros. Company. No. 155,526; May 30.
Jewelry, Certain articles of. Binder Brothers, Inc. No. 155,385; May 30.
Jewelry, Certain articles of. Miles F. Bixler Company. No. 155,386; May 30.
Jewelry, Certain articles of. Continental Jewelry Company. No. 155,402; May 30.
Jewelry, Certain articles of. Goldsmith Brothers Smelting and Refining Company. No. 155,429; May 30.
Jewelry, Certain articles of. J. R. Wood & Sons. No. 155,566; May 30.
Journal, Society. Town Topics Publishing Company. No. 21,694; renewed Aug. 30, 1922.
Jugs. Cleveland Fruit Juice Company. No. 155,397; May 30.
Laxative. G. F. Stier. No. 155,539; May 30.
Leather, Preparations for waterproofing shoe. E. C. Hodges. No. 155,446; May 30.
Liquid hydrocarbon to modify its action as motor fuel, Substances soluble in. J. R. White. No. 155,561; May 30.
Lotion, Complexion. Frederick F. Ingram Company. No. 155,456; May 30.
Lotion for the feet. Rozium Company. No. 155,521; May 30.
Manicure oil and nail polish. M. J. Hasden. No. 155,439; May 30.
Matches. J. B. Ellwood. No. 155,410; May 30.

Matches. Ohio Match Company. Nos. 155,579–80; May 30.
Matches. Union Allumettière Société Anonyme. No. 155,545; May 30.
Mattresses. Stearns & Foster Company. Nos. 155,584–8; May 30.
Mattresses. Utica Bedding Factory, Inc. No. 155,590; May 30.
Medical compounds for lung and throat diseases. Vapo-Cresolene Company. No. 21,647; renewed Aug. 16, 1922.
Medical compounds for treatment of hogs, horses, etc. E. B. Fenton, M. D. C. No. 155,417; May 30.
Medicinal preparation, Certain. Comer, Fetterly & Co. No. 155,398; May 30.
Medicinal preparation, Certain. F. Ferrone. No. 155,418; May 30.
Medicinal preparation, Certain. J. D. Howard. No. 155,449; May 30.
Medicinal preparation, Certain. Organ-Iron Company. No. 155,500; May 30.
Medicinal preparation for epilepsy. A. Stevens. No. 155,589; May 30.
Medicinal preparation for skin diseases, rheumatism, etc. P. J. Dervin. No. 155,404; May 30.
Medicinal preparations, Certain. Bayer Company. No. 155,382; May 30.
Medicinal preparations, Certain. National Medico-Specialties Laboratories. No. 155,493; May 30.
Medicinal preparations of calcium ortho-benzyl-oxybenzoate. Swan & Myers Co. No. 155,540; May 30.
Medicine for the throat and lungs. G. B. Raezer. No. 155,510; May 30.
Medicine in tablet form. William R. Warner & Co. No. 155,558; May 30.
Medicines used as a general tonic. S. M. Marcus. No. 155,576; May 30.
Mitten, Bath. C. Neugebauer. No. 155,494; May 30.
Mops, brushes, and dusters, Certain. B. E. Viner. No. 155,551; May 30.
Mops, dusters, and brushes, Certain. Elwell Brush Company. No. 155,411; May 30.
Music wire. Waterbury Company. No. 155,591; May 30.
Muslin piece goods. Marshall Field & Company. No. 155,482; May 30.
Notions, Certain. National Cloak & Suit Co. No. 155,496; May 30.
Ointment for corns. P. J. Trevarrow. No. 155,544; May 30.
Organs, automatic organs, orchestrions. M. Welte & Sons. No. 155,559; May 30.
Paintbrushes. M. I. Wilcox Company. No. 155,563; May 30.
Palettes, Children's water-color. Wallbrunn Kling & Co. No. 155,555; May 30.
Paper, Abrasive. Minnesota Mining & Mfg. Co. No. 155,490; May 30.
Paper, Bond. J. W. Butler Paper Company. No. 155,569; May 30.
Paper, Carbon. E. Hassinger. No. 155,440; May 30.
Paper, Certain. S. Walter, Inc. No. 155,557; May 30.
Perfumes, Concentrated. Odorbase Manufacturing Company. No. 155,578; May 30.
Perfumes, toilet waters, and sachets. K. D. Chowdbury. No. 155,395; May 30.
Perfumes, Toilet waters, etc. M. M. Richard Vve. Grenoville. No. 155,553; May 30.
Pharmaceutical preparation for ovarian insufficiency. Comer, Fetterly & Co. No. 155,399; May 30.
Phonographs and phonograph records. Emerson Phonograph Company. No. 155,412; May 30.
Phonographs, phonograph records, player rolls. Pace Phonograph Corporation. No. 155,502; May 30.
Piece goods. Edward McConnell & Co. No. 155,475; May 30.
Pipes and cigar and cigarette holders, Tobacco. C. Verguet. No. 155,550; May 30.
Pipes, cigar and cigarette holders and cases, etc. S. Gordon. No. 155,430; May 30.
Poison for rats, mice, and insects. Rat Biscuit Company. No. 155,582; May 30.
Poisoned raisins, Machine-. Dupuis Chemical Company. No. 155,409; May 30.
Polish for automobiles, pianos, fine furniture, etc. World Wonder Product Company. No. 155,567; May 30.
Polishes, Metal. H & S Laboratories. No. 155,436; May 30.
Pottery ware. Rookwood Pottery Company. Nos. 155,517–19; May 30.
Pottery ware. Wheatley Pottery Company. No. 155,560; May 30.
Poultry remedy for roup, etc. E. S. Stickel. No. 155,538; May 30.
Powder, Face. M. Gray. No. 155,434; May 30.
Powder puffs. Valmont Mfg. Co. No. 155,548; May 30.
Precious-metal ware, Certain. American Wholesale Corporation (Baltimore Bargain House). No. 155,364; May 30.
Precious-metal ware, Certain articles of. Mappin & Webb Limited. No. 155,479; May 30.
Preparations for treatment of piles, rickets, or St. Vitus's dance, etc. M. O. Milhoan. No. 155,489; May 30.
Press cloth for use in oil-seed presses, Reenforced. F. T. Parker. No. 155,504; May 30.
Pumps, carburetors, etc., Centrifugal and hydraulic. Penberthy Injector Company. No. 155,506; May 30.
Razor strops. Illinois Razor Strop Company. No. 155,454; May 30.
Remedies, Corn. J. J. Klavon. No. 155,465; May 30.
Rugs, lap robes, overcoating, steamer and sanitarium. F. C. Huyck & Sons. No. 155,453; May 30.
Salt, Dairy and table. International Salt Co. of New York. No. 155,457; May 30.
Salts, borax, alum, etc., Epsom. J. H. Snyder Med. Co. No. 155,530; May 30.
Salve, Medicinal. Doster-Northington Drug Co. No. 155,570; May 30.
Salve or ointment for croup, colds, etc. Capudine Chemical Company. No. 155,291; May 30.
Sheets. Marshall Field & Company. No. 155,577; May 30.
Sheetings. Pearl Cotton Mills. No. 155,505; May 30.
Silk and satin piece goods, shirtings, sheetings, etc. J. A. Migel, Inc. No. 155,488; May 30.
Silk, wool, etc., piece goods. Bianchini, Férier. No. 155,384; May 30.
Silks, linens, sheetings, etc., Broad. Schwarzenbach, Huber Company. No. 155,523; May 30.
Soap. Bauer & Black. No. 155,381; May 30.
Soap. Boston Blacking Company. No. 155,387; May 30.
Soap. Emerson Soap Co. No. 155,413; May 30.
Soap. G. C. Field. No. 155,419; May 30.
Soap. Globe Soap Company. No. 155,428; May 30.
Soap and soap powders. Janitors Supply House. No. 155,460; May 30.
Soap, Mechanics'. Silica Products Company. No. 155,525; May 30.
Soap, Toilet. Commercial Soap Company. No. 155,400; May 30.
Soaps. Henry Thayer & Co. No. 155,541; May 30.
Soda ash, bicarbonate and caustic sodas, bleaching powder, etc. Mathieson Alkali Works. No. 155,483; May 30.
Specific, Blood. M. M. Shuttles. No. 155,524; May 30.
Stationery, Certain articles of. Samuel Jones & Co. No. 155,573; May 30.
Stationery, Certain articles of. Seaman-Patrick Paper Co. No. 155,583; May 30.
Stoneware, Acid-proof chemical. M. A. Knight. No. 155,468; May 30.
Talking machine reproducers and needles. Everybody's Talking Machine Company. No. 155,571; May 30.
Tanning extracts. New York Quebracho Extract Company. No. 155,497; May 30.
Tires and tire treads, Rubber vehicle. Gillette Rubber Company. No. 155,426; May 30.
Tires, Resilient vehicle. Kelly-Springfield Tire Company. No. 155,463; May 30.
Tobacco and cigarettes, Smoking. British-American Tobacco Company. No. 155,388; May 30.
Tobacco, cigarettes, cigars, and snuff, Smoking. Gallaher Ltd. Nos. 155,420-22; May 30.
Tobacco, cigarettes, cigars, and snuff, Smoking and chewing. Gallaher, Ltd. No. 155,423; May 30.
Tobacco, cigars, and cigarettes, Smoking and chewing. John Sinclair Ltd. No. 155,527; May 30.
Toilet preparation. Empress Manufacturing Company. No. 155,414; May 30.
Toilet preparations. Lehmann & Bohne. No. 155,471; May 30.
Toilet preparations, Certain. F. E. Hinkle. No. 155,444; May 30.
Tonic, Certain. Dr. Peter Fahrney & Sons Co. No. 155,416; May 30.
Typewriter ribbons and carbon paper. U. S. Manifold Company. No. 155,546; May 30.
Varnish. Mayer & Loewenstein. No. 21,949; renewed Nov. 8, 1922.
Veils and veilings and nettings in the piece. Van Raalte Company. No. 155,549; May 30.
Viscose. Midwest Steel & Supply Company. No. 155,486; May 30.
Viscose. Midwest Steel & Supply Company. No. 155,487; May 30.
Vitamines for use as a general tonic. Vitamon Corporation. No. 155,552; May 30.
Wagons, coasters, and scooters, Children's convertible. C. Huseman. No. 155,452; May 30.
Washing compound. Wilson-Imperial Company. No. 155,564; May 30.
Washing machines, Laundry. Almeta! Manufacturing Company. No. 155,363; May 30.
Watch bracelets. Hipp, Didisheim Co. No. 155,445; May 30.
Waters, Natural mineral. Societe Generale des Eaux Minerales de Vittel. Nos. 155,531-2; May 30.
Waterproof dressing for leather and canvas goods. Duluth Boer Oil Co. No. 155,405; May 30.

ALPHABETICAL LIST OF LABELS.

"Aivory." (For Socks.) Aivory Sox Company. No. 24,393; May 30.
"Artesian." (For Canned Peas.) Minnesota Valley Canning Co. No. 24,416; May 30.
"Barker's Lice Powder." (For Lice Powder for Poultry, Cows, Horses, and Hogs.) Barker, Moore & Mein Medicine Co. No. 24,395; May 30.
"Barker's Roup Remedy." (For a Remedy for Roup in Poultry and Birds.) Barker, Moore & Mein Medicine Co. No. 24,394; May 30.
"Big Pig." (For Digester Tankage.) Indianapolis Abattoir Company. No. 24,407; May 30.
"Bran Bread." (For Loaves of Bread.) Schulze Baking Company. No. 24,425; May 30.
"Buffalo Brand." (For Cheese.) Hasselbeck Cheese Co. No. 24,406; May 30.
"College Days." (For Boxes Containing Candy.) Milwaukee Paper Box Company. No. 24,414; May 30.
"Deerfield Brand." (For Breakfast Sausage.) Detroit Packing Co. No. 24,399; May 30.
"Dexter's Hot Cross Buns." (For Bread.) Dexter Baking Company. No. 24,400; May 30.
"Dove Brand Olive Oil." (For Olive Oil.) G. H. Neofes. No. 24,421; May 30.
"Fliverstick Candy." (For Candy.) Candy Craft, Inc. No. 24,397; May 30.
"Forest Park." (For Butter.) Bennett Creamery Co. No. 24,396; May 30.
"Gelfand's Combination Relish." (For Relish.) S. Gelfand. No. 24,401; May 30.
"Gelfand's Combination Relish." (For Relish.) S. Gelfand. No. 24,403; May 30.
"Gelfand's Olive Mayonnaise." (For Mayonnaise, a Food Dressing.) S. Gelfand. No. 24,402; May 30.
"Grand View." (For Oranges.) Grand View Heights Citrus Assn. No. 24,404; May 30.
"Johnston's Scotch Floor Enamel." (For Cans Containing Floor Enamel.) R. F. Johnston Paint Company. No. 24,408; May 30.
"Ken." (For Soap.) Kendall Products Corporation. No. 24,409; May 30.
"Le Sueur." (For Canned Peas.) Minnesota Valley Canning Co. No. 24,417; May 30.
"Met-How." (For Apples.) Wenatchee Okanogan Warehousing Co. No. 24,428; May 30.
"Minnesota Valley." (For Canned Peas.) Minnesota Valley Canning Co. No. 24,415; May 30.
"Nielsen's Havana." (For Cigars.) Chas. J. Nielsen's Sons. No. 24,420; May 30.
"Pal-a-table." (For Grapefruit.) A. Roren. No. 24,424; May 30.
"Perfect Bread." (For Bread.) Perfect System Bakeries. No. 24,423; May 30.
"Polo Brand." (For Men's and Women's Sweaters.) Clawson & Wilson Company. No. 24,398; May 30.
"Pyramid Malt Extract." (For Malt Extracts.) A. Wielich. No. 24,429; May 30.
"Rossmore." (For Cigars.) Chas. J. Nielsen's Sons. No. 24,419; May 30.
"Sancho." (For Cigars.) Chas. J. Nielsen's Sons. No. 24,418; May 30.
"Sweetandgood." (For Cookies.) Matthaei Baking Co. No. 24,410; May 30.
"Tip-Top." (For Loaves of Bread.) Miller-Parrott Baking Co. No. 24,413; May 30.
"Tip Top Quality Moo-Kow." (For Chocolate Coated Ice-Cream Bar.) Vincennes Milk & Ice Cream Co. No. 24,426; May 30.
"Treasure Loaf." (For Bread.) Waxtwell Paper Company. No. 24,427; May 30.
"Ultra." (For Oranges.) Grand View Heights Citrus Assn No. 24,405; May 30.
"Wainwright Piston Pins." (For Piston Pins.) McQuay-Norris Mfg. Co. of Indiana. No. 24,412; May 30.
"Wainwright Pistons." (For Pistons.) McQuay-Norris Mfg. Co. of Indiana. No. 24,411; May 30.
"Walsten." (For Cigars.) A. S. Pflieger & Son. No. 24,422; May 30.
"Wyandotte." (For California Ripe Olives.) Wyandotte Olive Growers Association. No. 24,430; May 30.

ALPHABETICAL LIST OF PRINTS.

"Better Than Riches." (For Advertising Purposes for Drugs.) E. R. Squibb & Sons. No. 6,142; May 30.
"Coopers Union Suits Made By Coopers." (For Advertising Purposes for Men's, Women's, and Children's Underwear.) Cooper Underwear Company. No. 6,132; May 30.
"Eskimo Pie." (For Advertising Purposes for Confections.) Russell Stover Company. No. 6,139; May 30.
"I Love My Fliverstick Candy." (For Advertising Purposes for Candy.) Candy Craft, Inc. No. 6,131; May 30.
"Lovejoy Hydraulic Shock Absorber." (For Advertising Purposes for Shock Absorbers.) Packard Engineering Co. Nos. 6,134–6; May 30.
"The Greater Responsibility." (For Advertising Purposes for Drugs.) E. R. Squibb & Sons. No. 6,143; May 30.
"The New Three Passenger Haynes 55 Coupelet." (For Advertising Purposes for Automobiles.) Haynes Automobile Company. No. 6,133; May 30.
"The Phillips Cuff Shirt." (For Advertising Purposes for Shirts.) Phillips-Jones Corporation. No. 6,138; May 30.
"The Priceless Ingredient." (For Advertising Purposes for Drugs.) E. R. Squibb & Sons. No. 6,140; May 30.
"Van Heusen the World's Smartest Collar." (For Advertising Purposes for Collars.) Phillips-Jones Corporation. No. 6,137; May 30.
"With Brains, Sir." (For Advertising Purposes for Drugs.) E. R. Squibb & Sons. No. 6,141; May 30.

ALPHABETICAL LIST OF TRADE-MARK TITLES.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Adding machine rolls, clip boards, hat checks, etc. Rockwell-Barnes Company. No. 156,808; May 30.
Alcohol, Massage. Langley & Michaels Co. No. 158,716; May 30.
Alcohol, Rubbing. Langley & Michaels Co. No. 158,717; May 30.
Asbestos pipe covering. Sall Mountain Company. No. 158,261; May 30.
Ash receivers and trays. Reliance Metal Spinning & Stamping Co. No. 158,150; May 30.
Automobiles. F. I. A. T. No. 155,433; May 30.
Balls, Golf. J. V. Hogue. No. 160,704; May 30.
Balls, Golf. J. Wanamaker, New York. No. 150,716; May 30.
Bedspreads. Aurora Bed Spread Co. No. 155,984; May 30.
Belting, hose, machinery packing, and nonmetallic tires. Doermann-Roehrer Co. No. 142,246; May 30.
Beverage and sirup for making the same. S. Davis. No. 159,957; May 30.
Beverage and sirups and extracts for making same, Nonalcoholic maltless. Standard Bottling Company. No. 156,809; May 30.
Beverage, Nonalcoholic maltless. A/S Tuborgs Fabrikker. No. 158,805; May 30.
Beverage, Nonalcoholic maltless. Grape Ola Products Corporation. No. 126,371; May 30.
Beverage, Nonalcoholic, maltless, celery tonic. M. Sopshin. No. 161,510; May 30.
Beverage sold as a soft drink, Nonalcoholic maltless. F. Harwell. No. 152,368; May 30.
Beverages, Nonalcoholic maltless. G. C. Cook. No. 160,536; May 30.
Blankets, Gray cotton. Tremont & Suffolk Mills. No. 159,733; May 30.
Blankets, Woolen. I. Ginzkey-Maffersdorf, Inc. Nos. 159,962–5; May 30.
Boiler chemicals. Bird-Archer Company. No. 158,598; May 30.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Boilers, Steam. J. P. Badenhausen. No. 156,348; May 30.
Books, Printed. C. N. Bourne. No. 153,579; May 30.
Buffing compounds. American Tripoli Company. No. 150,127; May 30.
Bulletin or news sheet of the prices of metals, Daily. Bigelow, Bowditch & Company. No. 155,853; May 30.
Buttons for clothing, Nonbreakable. Non-Breakable Button Corporation of America. No. 156,106; May 30.
Calendars. Defiance Manufacturing Company. No. 158,227; May 30.
Candies. Wiener & Bieber. No. 152,147; May 30.
Candy, Chocolate. Aktien-Gesellschaft Vereinigte Berner & Zürcher Chocolade Fabriken Lindt & Sprüngli. No. 146,788; May 30.
Canned fruits and vegetables. Virden Packing Company. No. 154,900; May 30.
Carbons, Decolorizing and activated. Carbrox Company. No. 156,078; May 30.
Cards, Playing. A. Dougherty. No. 160,395; May 30.
Cards, Playing. United States Playing Card Company. No. 161,020; May 30.
Cartoon serials. Sun-Herald Corporation. No. 157,905; May 30.
Chairs and tables for general use. W. Heerling. No. 159,579; May 30.
Chemical preparation. Abbott Hardware Co. No. 158,669; May 30.
Chemicals used in photography. Bromograph A.-G. Mannheim. Nos. 156,253–4; May 30.
Cigarettes. Lady Nic Inc. No. 158,049; May 30.
Cigarettes. H. Theocaridis. No. 160,214; May 30.
Cigarettes. N. F. Turner. No. 160,372; May 30.
Cigars. De Nobili Cigar Co. No. 159,791; May 30.
Cigars. Reid, Murdoch & Co. No. 156,803; May 30.
Cigars. Reid, Murdoch & Co. No. 156,805; May 30.
Cigars and smoking tobacco. Cavour Cigar Company. No. 156,865; May 30.
Cleaner, Dry. Pure Oil Company. No. 146,033; May 30.
Cleansing and polishing material. Star Dust Products Corporation. No. 156,111; May 30.
Coal, wood, gas, and oil furnaces and stoves. Mahoning Foundry Co. No. 143,827; May 30.
Coke. Koppers Company. No. 157,490; May 30.
Combs, pendants, hair ornaments, etc. Standard Comb Company. No. 136,609; May 30.
Concrete, brick, timber, and structural steel, Reenforced. John W. Ferguson Company. No. 150,008; May 30.
Cotton piece goods. Carter Dry Goods Co. No. 159,498; May 30.
Cotton piece goods. J. P. Crozer. No. 156,960; May 30.
Cotton piece goods. Minot, Hooper & Co. No. 158,483; May 30.
Cough sirup. C. A. Anstadt. No. 157,648; May 30.
Creams, Face. H. P. Cogbill. No. 155,930; May 30.
Creams, Face. H. Lewis. No. 156,536; May 30.
Depilatories. Odorono Company. No. 142,717; May 30.
Desks and office tables. Hoosier Desk Company. No. 158,616; May 30.
Disinfectant. H. Hague. No. 157,486; May 30.
Doll heads. McCrosky Bros. No. 140,192; May 30.
Dolls. Cosgrove Brothers, Inc. No. 161,672; May 30.
Dolls and their parts: Kämmer & Reinhardt A. G. No. 162,421; May 30.
Draperies, velours, scrims, etc. Ely & Walker Dry Goods Company. No. 155,218; May 30.
Dresses, Ladies' and misses'. Levy Shulman and Co. No. 156,605; May 30.
Dresses, petticoats, blouses, etc. Rosebud Mfg. Co. No. 156,751; May 30.
Drinks and sirups, Carbonated soft. H. P. Hood & Sons, Inc. No. 147,877; May 30.
Dyes. George D. Wright Corporation. No. 158,741; May 30.
Elastics, shoe laces, pins, buttons, etc. Billstein-Feirman Co. No. 157,656; May 30.
Electrolyte compound. Harris-Stephenson. No. 158,711; May 30.
Fabrics in the piece, Pile. Sidney Blumenthal & Co. No. 159,832; May 30.
Fabrics in the piece, Pile. Sidney Blumenthal & Co. No. 159,834; May 30.
Fabrics in the piece, Pile. Sidney Blumenthal & Co. Nos. 159,837–9; May 30.
Fishing baits, Artificial. Weber Lifelike Fly Co. No. 159,069; May 30.
Fruits, Fresh. W. T. Weaver. No. 155,981; May 30.
Furnaces, Hot-air. L. J. Mueller Furnace Co. No. 142,355; May 30.
Furniture, plain and upholstered, Household and office. Nunner and Ashton Company. No. 130,335; May 30.
Furs dyed to resemble nutria. A. Pierini. No. 143,832; May 30.
Games. Piroxloid Products Corporation. No. 155,445; May 30.
Gasoline, naphtha, fuel oils, kerosene, etc. Henry H. Cross Company. Nos. 149,796–7; May 30.
Ginger ale, root beer, sarsaparilla, birch beer, etc. Hudor Co. No. 158,120; May 30.
Glass baking vessels. McKee Glass Co. No. 150,625; May 30.
Glass baking vessels. McKee Glass Company. No. 150,907; May 30.
Golf, Device for enabling a person to study and perfect himself in the game of. Holmac, Inc. No. 162,294; May 30.
Hair nets. N. B. Cohen. No. 159,345; May 30.
Hair nets. N. B. Cohen. No. 159,347; May 30.
Hair nets. L. H. Connor. No. 155,484; May 30.
Hair nets. Galchinsky Bros. No. 157,666; May 30.
Hair nets. Jordan Marsh Company. No. 159,037; May 30.
Hair nets. Sitroux Importing Company. No. 158,584; May 30.
Hair restorer. J. B. Sharp. No. 150,782; May 30.
Hair shampoo. A. A. Krueger. No. 158,621; May 30.
Handkerchiefs. Acheson-Harden Co. No. 159,677; May 30.
Heaters and cookstoves. Nash Hardware Company. No. 157,433; May 30.
Jar rings, Fruit-. Schloss Manufacturing Co. No. 160,262; May 30.
Leather and cut laces of leather, Lace. Graton & Knight Manufacturing Company. No. 119,159; May 30.
Liquid for dissolving and removing gallstones. Vital Sanando Co. No. 157,501; May 30.
Liquid for liver, stomach, and bowel troubles. Vital Sanando Co. No. 157,502; May 30.
Liquors, Spirituous. Aktieselskabet de Danske Spritfabrikker. No. 155,133; May 30.
Locks for automobiles. Hershey Manufacturing Company. No. 156,383; May 30.
Matches. Jönköpings Och Vulcans Tändsticksfabriksaktiebolag. No. 157,275; May 30.
Mattresses, box springs, bed springs, and pillows. Akron Mattress Manufacturing Company. No. 158,550; May 30.
Medicine for the treatment of headache, neuralgia, etc. C. G. Metcalfe. No. 146,267; May 30.
Medicines for colds and analogous diseases. Edgar Chemical Company. No. 157,415; May 30.
Medicines for eczema, itching piles, dandruff, pimples, rash, etc. R. W. Brown. No. 152,307; May 30.
Medicines for the treatment of tuberculosis. R. Milton Lewis Company. No. 152,513; May 30.
Medicines—to wit, cough sirup, liniment, fracello oil, ointment. C. Zuray. No. 150,884; May 30.
Mortise and rim locks, Steel. Société P. & A. Picard. No. 158,582; May 30.
Oil, Olive. Bragno & Mustari. No. 155,155; May 30.
Ointment for the treatment of acute and chronic dartre, sycosis, etc. G. Laabs. No. 158,988; May 30.
Ointment for the treatment of rheumatism and neuralgic pain. W. D. Davis. No. 155,670; May 30.
Olives, fruit jelly, fruit jam, apple butter, etc. Tisgood Products, Inc. No. 148,185; May 30.
Ophthalmic mountings and parts thereof. Albex Optical Co. No. 160,687; May 30.
Paper, Waxed, wrapping, crêpe, tissue, and toilet. San Antonio Drug Co. No. 142,423; May 30.
Peppermint astringent. F. H. Green. No. 157,485; May 30.
Perfume. Balba Corporation of America. No. 157,405; May 30.
Phonographs. Federal Electric Company. No. 140,792; May 30.
Picture, spotlight, stereopticon, and photographic apparatus, Condensing lenses used in motion-. Sussfeld, Lorsch & Schimmel. No. 160,211; May 30.
Pictures, Motion. Arrow Film Corporation. No. 159,991; May 30.
Pocketknives. Challenge Cutlery Corporation. No. 155,016; May 30.
Poison for rats, mice, and insects. Rat Biscuit Company. No. 156,598; May 30.
Poultices and plasters for the treatment of boils, burns, etc. O. F. Louis. No. 157,155; May 30.
Preparation for application on face and designed to remove wrinkles, etc., Chemical. Weichsel Laboratories. No. 156,428; May 30.
Preparations, Bactericide and antiseptic. Vereinigte Chininfabriken Zimmer & Co. Gesellschaft mit beschränkter Haftung. Nos. 152,525–6; May 30.
Preparations used in the treatment of the following diseases: Chlorosis, anæmia, skin diseases, malaria, etc. Winthrop Chemical Company. No. 158,547; May 30.
Printed products—namely, journals, music, insignia, and letters. Drei Masken Verlag A.-G. No. 156,152; May 30.
Proprietary medicine for use in treatment of sterility in women. H. W. Elders. No. 157,146; May 30.
Publication, Weekly. Dearborn Publishing Company. No. 157,061; May 30.
Publications, Weekly periodical. American Lumberman. No. 158,172; May 30.
Razors, knives, scissors, etc. H. Müller. No. 155,443; May 30.
Remedy, face lotions, and powders, perfumes, and salves, Eczema. Leon Maurice Laboratories. No. 142,563; May 30.
Remedy for sick headache, dyspepsia, constipation, biliousness, etc. F. B. Ricketts. No. 137,542; May 30.
Remedy, Restorative and constructive tonic. Nuradium Company. No. 158,021; May 30.

PUBLISHED FOR OPPOSITION.

[Act of Feb. 20, 1905, Sec. 6, as amended Mar. 2, 1907.]

Rubber jar rings. Cupples Company Manufacturers. No. 158,380; May 30.
Rugs. Colonial Rug Company. No. 153,437; May 30.
Salve. J. A. Baker. No. 157,649; May 30.
Scalp tonic. H. A. Parrish. No. 151,887; May 30.
Scissors. Samstag & Hilder Bros. No. 150,780; May 30.
Seeds and grains. H. C. King & Sons. No. 156,582; May 30.
Shampoo. Cleero Company. No. 158,602; May 30.
Shoe polish. J. H. T. Olsen. No. 156,235; May 30.
Shoe polish. Whitman Shoe Polish Mfg. Co. No. 151,741; May 30.
Shoes, skis, sleds, baseballs, etc., Snow. Hanscom Hard ware Co. No. 159,414; May 30.
Silk piece goods. Duplan Silk Corporation. No. 153,450; May 30.
Silk piece goods. H. R. Mallinson & Co. No. 159,804; May 30.
Silk, wool, and cotton fabrics knitted in the piece. Progressive Knitting Works, Inc. No. 145,794; May 30.
Sirup for beverages, Malt. Milwaukee-Waukesha Brewing Company. No. 138,916; May 30
Sirup for beverages, Maltless cereal. Milwaukee-Waukesha Brewing Company. No. 138,915; May 30.
Sirups used in the preparation of soft drinks, Maltless flavoring. J. L. Reese, Inc. No. 144,787; May 30.
Skin preparation for eczema, etc. L. Drinkwine. No. 154,965; May 30.
Soap. James S. Kirk & Company. No. 119,073; May 30.
Soap, Mineral. G. E. Brignall. No. 151,304; May 30.
Stokers used in connection with steam boilers. Vogt Brothers Mfg. Co. No. 159,773; May 30.
Tablet, Medicinal tonic. Irongland Company. No. 159,206; May 30.
Timber-joint plates. Midwest Steel & Supply Company. No. 160,501; May 30.
Tobacco, cigars, cigarettes, and snuff, Smoking and chewing. "Turmac" Turkish-Macedonian Tobacco Co. Nos. 159,227–8; May 30.
Tobacco, Smoking. Bailey Bros., Inc. No. 162,529; May 30.
Tonic. Philo Hay Company. No. 158,644; May 30.
Tonic, Blood and nerve. W. Lindsey. No. 139,167; May 30.
Tonic containing vitamines of yeast, Food. Yeast Tablet Co. No. 158,512; May 30.
Tonic, System. Dr. Peter Fahrney & Sons Co. No. 154,867; May 30.
Toy banks. L. I. King. No. 161,320; May 30.
Toys. Barnard Toy Co. No. 158,282; May 30.
Union suits (waist), union suits, undershirts, and drawers. Nazareth Waist Co. No. 151,371; May 30.
Vehicle, Child's. B. Brady. No. 162,098; May 30.
Yeast plant, Chemical food for. G. Gould. No. 156,626; May 30.

CLASSIFICATION OF PATENTS

ISSUED MAY 30, 1922.

NOTE.—First number=class, second number=subclass, third number=patent number.

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217— 17: 1,418,067
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225— 21: 1,418,072
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235— 59: 1,417,685
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274— 2: 1,418,016
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33: 1,418,045
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64: 1,418,221
65: R. 15,367
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306— 31: 1,417,942